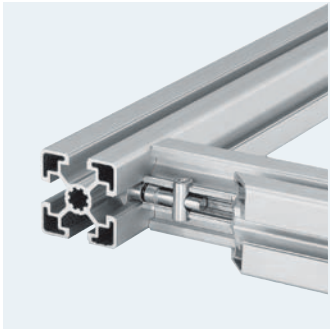
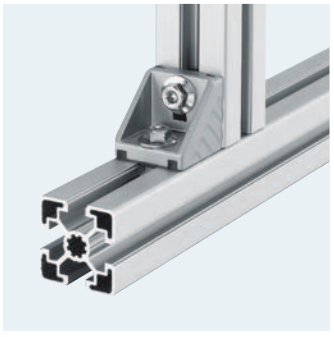
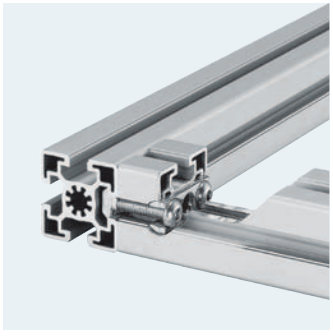
The Drive & Control Company

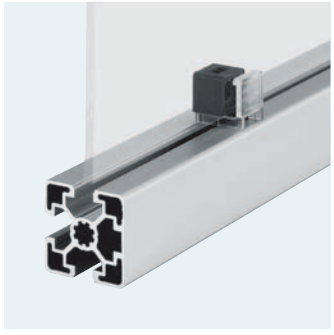
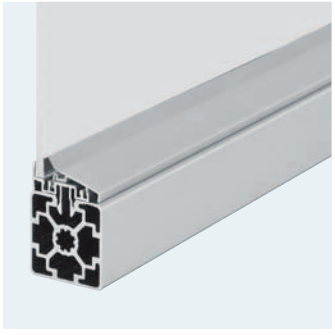
Rexroth
Bosch Group

Basic Mechanic Elements

13.0

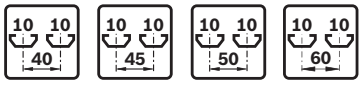









Explanations

Presentation			Explanation
40x40 HR	**L** (mm)	**No.**	Product available for delivery as: – Single component with variable length, e.g. Order: 1x 3 842 993 257/785 Delivery: 1x 40x40 HR with M12 profile finishing on both sides, L = 785 mm – Delivery unit (: here 20 pieces) with fixed length, e.g. Order: 1x 3 842 529 381 Delivery: 20x 40x40 HR (without profile finishing), L = 6070 mm M12 M12 See section 2 for notes on profile finishes.
1 pc	50 ... 6000	**3 842 993 256/L**	
1 pc M12 M12	110 ... 6000	**3 842 993 257/L**	
20 pcs	6070	**3 842 529 381**	
50/50	**Slot**	**ESD** **No.**	The product is delivered in packaging units (: 20 pieces); i.e. the order quantity must correspond with the specified quantity or a multiple of that quantity; deviating quantities will be rounded up. Order examples: – Order: 1x 3 842 530 381 – delivery: 20x bracket 50/50 – Order: 20x 3 842 530 381 – delivery: 20x bracket 50/50 – Order: 30x 3 842 530 381 – delivery: 40x bracket 50/50
Bracket (standard)	10	20 **3 842 530 381**	
Cap		20 **3 842 530 383**	
Supporting brackets		**No.** **FS**	For order tables without the column, = 1 Order examples: – Order: 1x 3 842 531 146 – delivery: 1x supporting bracket incl. fastening material (FS) enclosed with the product for peripheral mounting
		3 842 531 146 6xFS1	
			1. Profile with slot width 6 mm, 8 mm, 10 mm; all modular dimensions 2. Accessories suitable for mounting to profiles with the specified slot width; all modular dimensions
			1. Profile with slot width 10 mm; modular dimensions: 40 mm, 45 mm, 50 mm, 60 mm 2. Accessories suitable for mounting to profiles with the specified slot width and modular dimensions
			Conductive material version in accordance with DIN EN 61340-5-1; suitable for use in ESD-sensitive areas
			Suitable for use in cleanrooms
			Profile finishing required (drilling, thread cutting, milling)
			The centering tab can be broken off for offset assembly or assembly at right angles to the profile slot.
			Screw with Torx profile
			Weight
			Permitted load (N)



Uncompromisingly flexible: the original modular assembly system

Work areas become more efficient when they are individually tailored to their actual purpose. From frames, enclosures, special and series-production equipment, and ESD-conductive systems, to workstations or lines for material supply and linking, Bosch Rexroth's ultra flexible assembly system offers quick, complete solutions for every industry.

Introduced more than 30 years ago by Bosch, our modular system now contains well over 1500 components. The concept is irresistibly simple: The system is based on aluminum profiles with "limitless" longitudinal slots.

With consistent advancements, customer-oriented services, and comprehensive support, including free-of-charge planning software, our modular system offers everything you need for efficient working environments.

Introduction	**1**
Strut profiles	**2**
Connection elements	**3**
Joints	**4**
Air-supply elements	**5**
Feet and wheels	**6**
Support of surface elements	**7**
Doors and fittings	**8**
Accessories for protective barriers	**9**
EcoSafe protective barriers and partition walls	**10**
Installation elements	**11**
Elements for manual movement	**12**
Linear guide technology	**13**
Tools	**14**
FiFo station	**15**
Components for lateral guides	**16**
Components for ESD applications	**17**
Proximity switches and switch brackets	**18**
Technical data	**19**
Material number overview	**20**
Index	**21**

The Rexroth modular system – safe, reliable, and individual

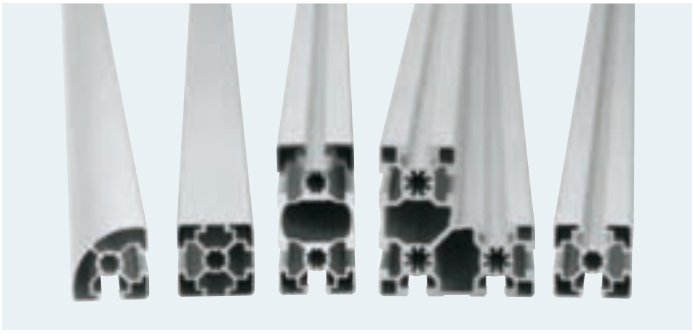
Use our comprehensive range to effectively cut working hours and costs.

- Short planning times
- Faster construction
- Highly flexible conversion and extension options
- Finished, corrosion-proof surfaces
- Reusable components
- Available worldwide



Multi-talented product range

With over 100 different profile cross-sections, precisely matched modular dimensions, versatile connection elements, and accessories, you can make virtually any idea a reality.



Strong profiles – cost-effective selection for all load cases!

- Light profiles
- Highly durable standard profiles
- Profiles with closed slots
- Round profiles for an attractive design
- Innovative special profiles for special applications



Robust connection technology – Rexroth connections for an ultra-strong, secure hold!

- Bracket
- Joints
- Cubic connectors
- Bolt connectors
- Quick connectors
- ...



Matching accessories for profile systems – easy mounting in profile slots or central bores!

- Hinges, sliders
- Clamping elements
- Feet and rollers
- Installation and air-supply elements
- Cover profiles and mounting rim profiles
- ...

Application-based solutions for all industries







An impressive concept for a wide variety of industrial solutions, from applications for motor vehicles, safety equipment, logistics, or automation, to electronics and exhibition construction.









Excellent planning reliability thanks to a professional, worldwide network

Extensive experience, in-depth expertise, and reliable production capacities ensure on-time, fast deliveries.



Reliable, worldwide availability

- Dealers and system vendors, as well as regional and country units – around the world and at your doorstep!
- High-capacity central warehouse in Stuttgart
- On-site storage at Rexroth subsidiaries
- Customized production capacities



On-time, rapid delivery

- Availability of all components
- Pre-assembled modules, complete frames
- Prompt shipping and exemplary delivery reliability



Professional contact partners

- Individual consulting
- Comprehensive services
- Sales partners near you
- Qualified specialists

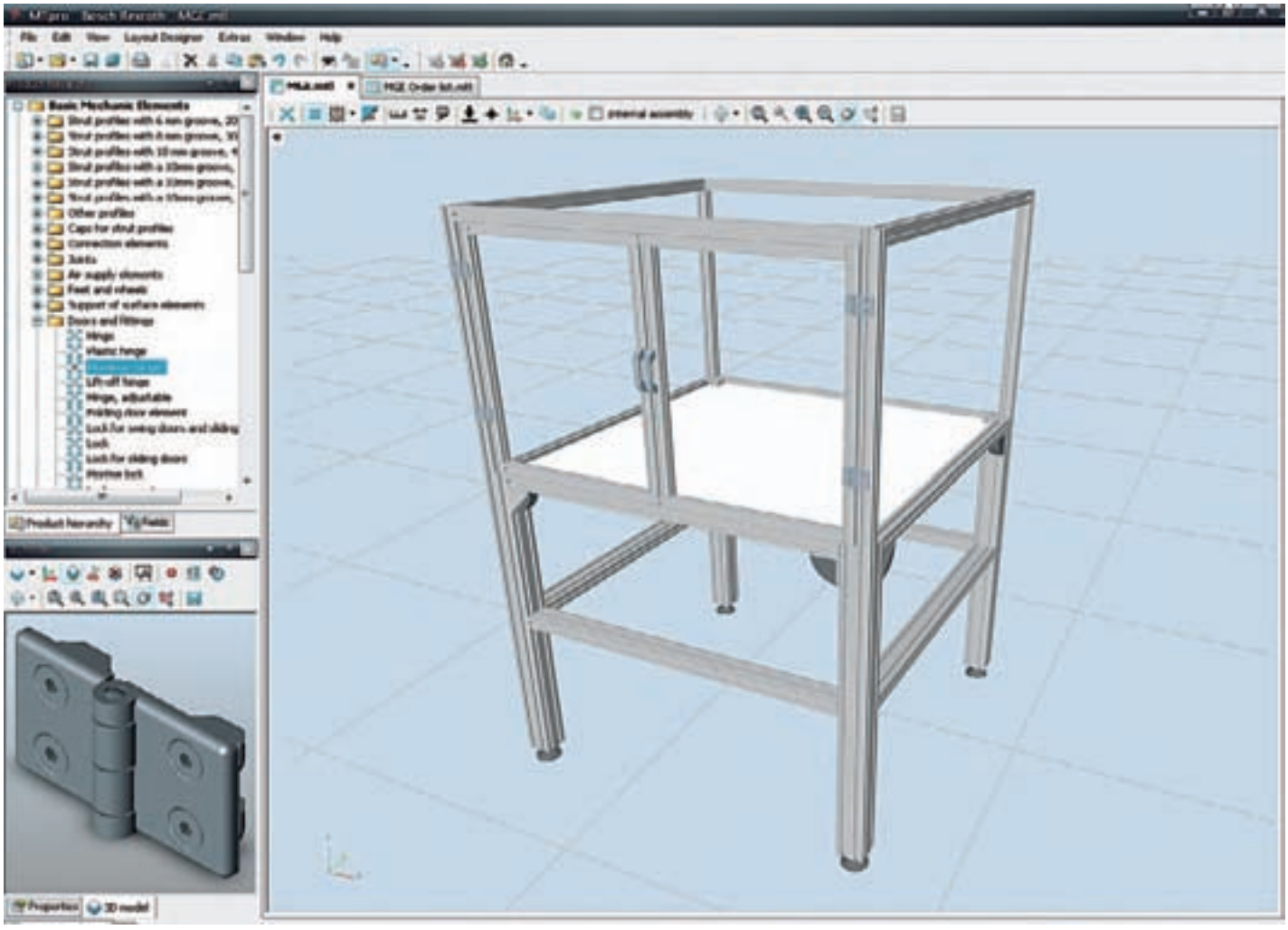
Locate your contact partner in the Rexroth sales and service organization at the click of a mouse:
www.boschrexroth.com/adressen-dcl

MT*pro* – planning software

With endless combination possibilities, easy planning, and on-time deliveries, perfect results are just an order away.

This highly user-friendly software accelerates and simplifies planning of application-specific frames, enclosures, and workstations.
Complete orders can be placed in no time at all. The data can be easily imported into your CAD or VR (virtual reality) environment via a CAD interface.

- Complete product info
- CAD library
- Quick & Easy configurator
- Calculation of profile deflection
- Drawing conversion for profiles
- Layout Designer for fast, easy planning



Individual planning, efficient construction, multiple benefits

You can create reliable, complete, and open solutions for increased productivity using Bosch Rexroth's powerful aluminum modular system.



Safe

- High force absorption thanks to strong profiles
- Sophisticated connection technology
- Anti-torsion elements and positioning aids
- Completely ESD-conductive
- Guaranteed performance data



Reliable

- Standardized components
- Minimal planning effort
- Consistently matched elements
- Short assembly times, few tools
- Durable, corrosion-resistant



Individualized

- For all industries
- Reusable parts
- Scaling/extension options
- Technical and design solutions
- Can be combined with transfer systems, VarioFlow, Manual Production Systems, MGE linear guides, EcoSafe
- Customer-specific Quick & Easy profile finishes

Strut profiles



Strut profiles, 6 mm slot, 20 mm modular dimension (p. 2-10)



Strut profiles, 8 mm slot, 30 mm modular dimension (p. 2-15)



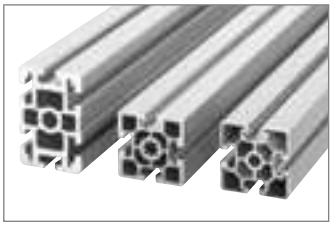
Strut profiles, 10 mm slot, 40 mm modular dimension (p. 2-23)



Strut profiles, 10 mm slot, 45 mm modular dimension (p. 2-34)



Strut profiles, 10 mm slot, 50 mm modular dimension (p. 2-48)



Strut profiles, 10 mm slot, 60 mm modular dimension (p. 2-50)



Rectangular tube (p. 2-52)
Clamping profile (p. 2-53)



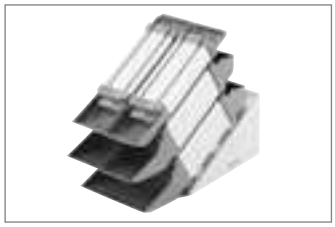
Frame profiles
22.5x30 (p. 2-54)
22.5x45 (p. 2-55)



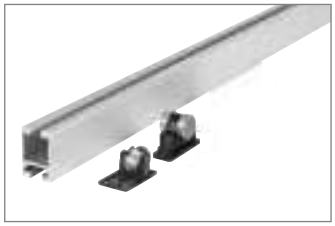
Angle profile (p. 2-56)
Suspension profile (p. 2-57)
Container mount (p. 2-58)



Slotted plate (p. 2-59)



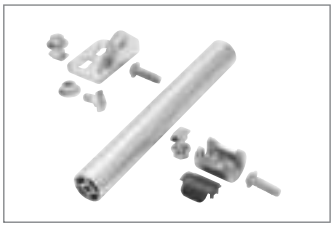
Material chute (p. 2-60)



Profile rail (p. 2-62)



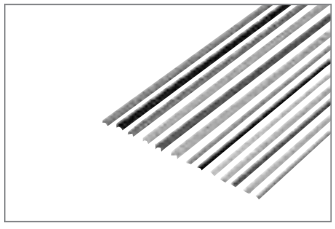
Profiles for installing conveyor media (p. 2-63)



Round tube D28 (p. 2-66)
Strut profile D28x55 (p. 2-66)



EcoShape tubular framing system (p. 2-69)



Cover profiles, additional accessories (p. 2-76)

Strut profiles

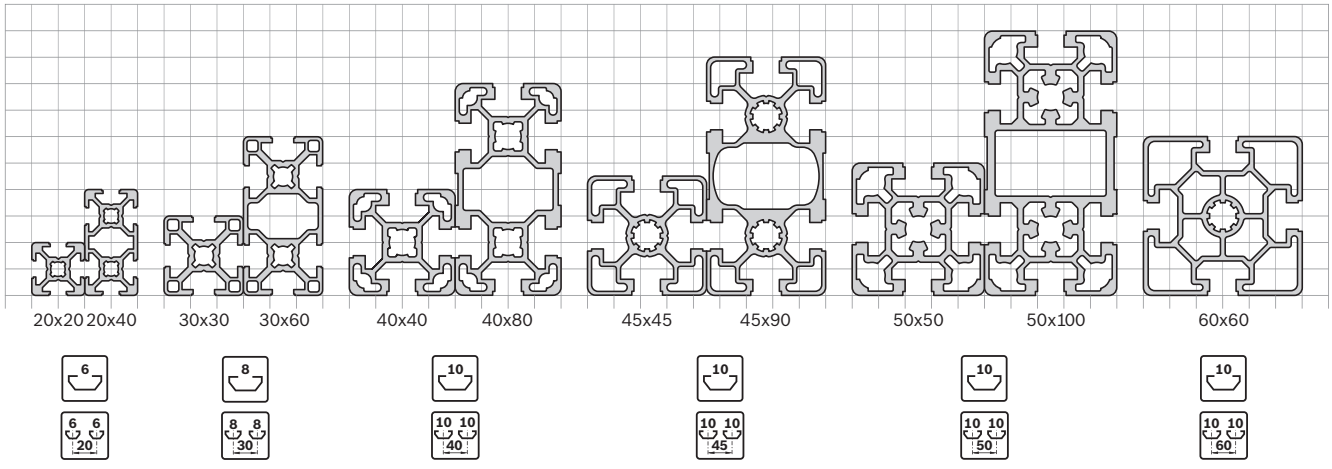
With more than 100 strut profiles for all types of loading, Bosch Rexroth AG offers the widest product range for different demands:

- Square and rectangular profiles
- Light profiles with optimized cross-sections
- Round profiles and profiles with smooth lateral surfaces

Connectors with high load-bearing capacities, combined with ultra robust slots and large central bores, enable profile connections equipped to handle high static and dynamic loads.

Bosch Rexroth AG offers you six different profile ranges. All profiles within one profile range have the same slot dimensions and spacing to ensure perfect coordination during construction.
Due to their high degree of robustness, the 10 mm slotted profiles are suitable for constructions ranging from tables to heavy machine frames. They are available in four profile series with a slot spacing of 40 mm, 45 mm, 50 mm, or 60 mm.
The 8 mm and 6 mm slotted profiles are used in the construction of lightweight equipment, partition walls, stands, or showcases.

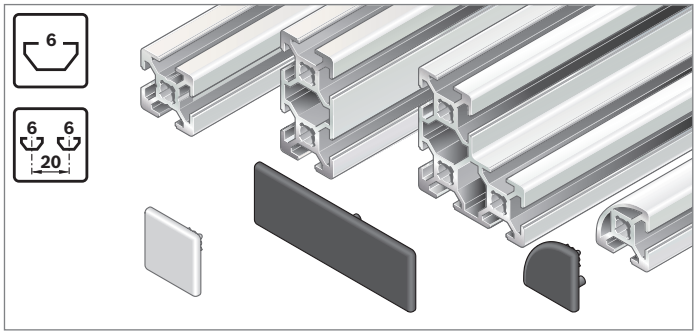
Strut profiles – slot sizes and modular dimensions



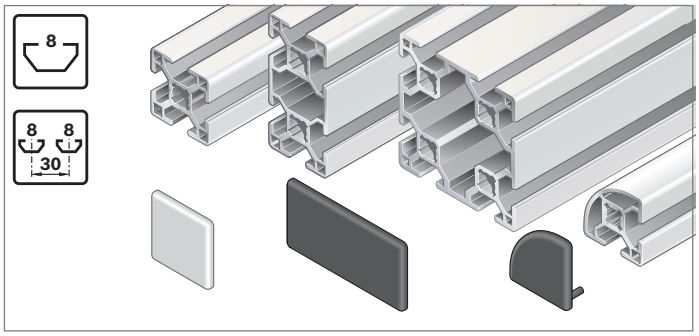
00111714

Strut profiles – slot sizes and modular dimensions

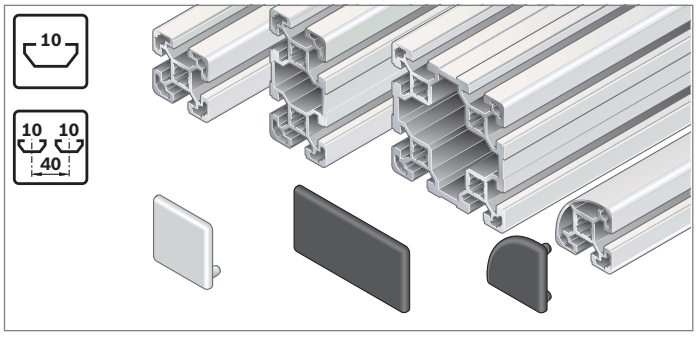
6 mm slot, 20 mm modular dimension



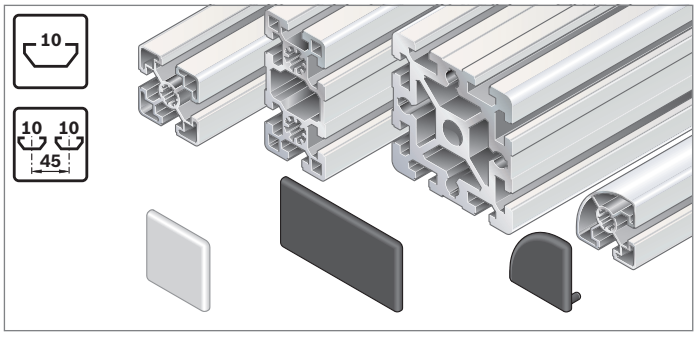
8 mm slot, 30 mm modular dimension



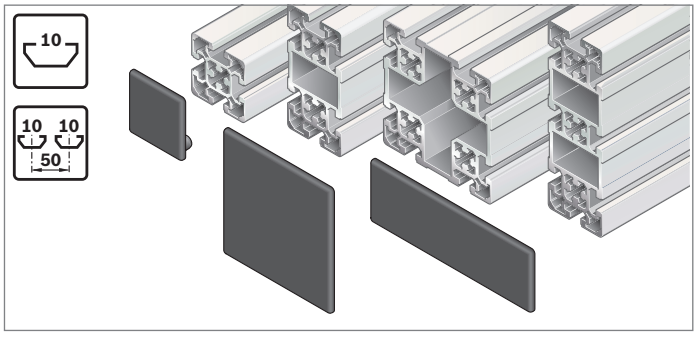
10 mm slot, 40 mm modular dimension



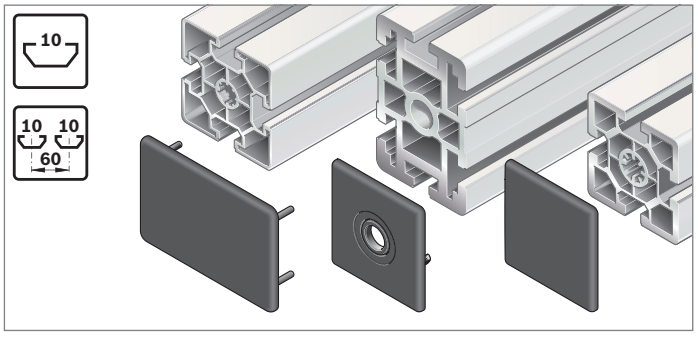
10 mm slot, 45 mm modular dimension



10 mm slot, 50 mm modular dimension

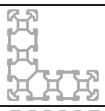


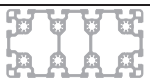
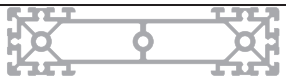
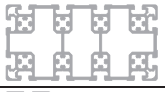
10 mm slot, 60 mm modular dimension



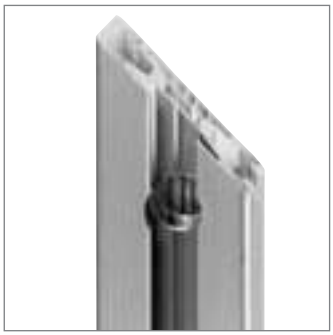
Technical data – profiles

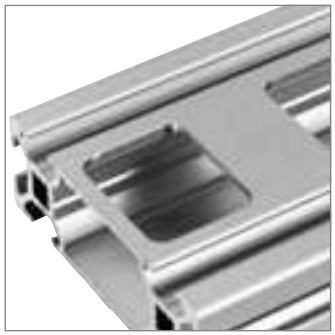
Profile		Slot	Profile surface	Moment of inertia		Moment of resistance		Mass	Page
			A (cm^2)	I_x (cm^4)	I_y (cm^4)	W_x (cm^3)	W_y (cm^3)	**m** (kg/m)	
20x20		6	1.6	0.7	0.7	0.7	0.7	0.4	2-11
20x20 1N		6	1.9	0.8	0.8	0.8	0.8	0.5	2-11
20x20 2N		6	1.8	0.7	0.8	0.7	0.8	0.5	2-11
20x20 2NVS		6	1.8	0.7	0.7	0.7	0.7	0.5	2-12
20x20 3N		6	1.7	0.7	0.8	0.7	0.7	0.5	2-12
20x20 R		6	1.6	0.6	0.6	0.5	0.5	0.4	2-12
20x40		6	2.9	4.6	1.2	2.5	1.4	0.8	2-13
20x60		6	3.5	14.2	1.7	4.7	1.7	0.9	2-13
20x40x40		6	4.2	6.0	6.0	2.6	2.6	1.1	2-13
10x40		6	2.1	3.2	0.2	–	–	0.6	2-14
30x30		8	3.1	2.8	2.8	1.8	1.8	0.9	2-16
30x30 1N		8	3.7	3.1	3.5	2.0	2.3	1.0	2-16
30x30 2N		8	3.5	2.8	3.5	2.1	2.7	1.0	2-16
30x30 2NVS		8	3.5	3.1	3.1	2.0	2.0	1.0	2-17
30x30 3N		8	3.3	3.1	2.8	2.3	2.2	0.9	2-17
30x30°		8	3.7	3.5	3.6	2.0	1.9	1.0	2-17
30x45°		8	4.0	3.6	5.1	2.1	2.3	1.1	2-18
30x60°		8	3.6	3.1	4.1	1.7	1.9	1.0	2-18
30x30 R		8	2.9	2.3	2.3	1.4	1.4	0.8	2-18
30x60		8	5.5	19.6	5.1	7.0	3.9	1.5	2-19
30x60 4N		8	5.8	20.2	5.5	6.7	3.8	1.6	2-19
30x60x60		8	8.2	26.2	26.2	7.6	7.6	2.2	2-19
30x90		8	7.7	60.7	7.3	13.5	4.9	2.1	2-20
30x120		8	9.9	136.3	9.6	22.7	6.4	2.7	2-20
30x45		8/10	4.0	8.1	3.9	3.9	2.9	1.1	2-21
60x60 8N		8	9.8	39.7	39.7	13.2	13.2	2.6	2-21
11x20		8	1.0	0.5	0.1	0.7	0.3	0.3	2-21
15x120		8	9.0	110.4	2.2	18.4	2.7	2.4	2-22
40x40L		10	5.6	9.1	9.1	4.5	4.5	1.5	2-25
40x40L 0N		10	6.3	10.4	10.4	5.2	5.2	1.7	2-25
40x40L 1N		10	6.1	9.8	10.4	4.8	5.2	1.7	2-25
40x40L 2N		10	6.0	9.0	10.3	4.5	5.2	1.6	2-26
40x40L 2NVS		10	6.0	9.7	9.7	4.9	4.9	1.6	2-26
40x40L 3N		10	5.8	9.7	9.0	4.8	4.5	1.6	2-26
40x30°		10	6.2	9.4	11.8	4.7	5.9	1.7	2-27
40x45°		10	6.8	9.9	16.6	5.0	8.3	1.8	2-27
40x60°		10	6.3	8.7	13.1	4.3	6.5	1.7	2-27
40x40L R		10	5.0	7.2	7.2	3.6	3.6	1.3	2-28
40x40 HR		10	5.5	8.1	7.6	4.0	3.6	1.5	2-28

Profile		Slot	Profile surface	Moment of inertia		Section modulus		Mass	Page
			A (cm^2)	I_x (cm^4)	I_y (cm^4)	W_x (cm^3)	W_y (cm^3)	**m** (kg/m)	
40x80L		10	9.9	63.4	17.3	15.9	8.7	2.7	2-29
40x80L 4N		10	10.4	65.2	19.1	16.3	9.9	2.8	2-29
40x80L 3NVS		10	10.6	67.8	19.0	17.0	9.5	2.9	2-30
40x80x80L		10	15.4	96.6	96.6	24.2	24.2	4.2	2-30
40x120L		10	15.5	203.2	27.8	33.9	13.9	4.2	2-30
40x160L		10	20.5	466.7	37.2	58.3	18.6	5.5	2-31
80x80L		10	18.2	132.1	132.1	33.0	33.0	4.9	2-31
80x80L 4NVS		10	19.3	142.5	142.5	35.6	35.6	5.2	2-32
80x80L 6N		10	18.8	134.1	140.9	33.5	36.2	5.1	2-32
40x120x120L		10	24.6	318.0	318.0	42.2	42.2	6.7	2-32
80x120L		10	25.6	389.2	192.8	64.9	48.2	6.9	2-33
80x160L		10	32.9	850.7	253.4	106.3	63.4	8.9	2-33
45x45L		10	6.0	11.7	11.7	5.2	5.2	1.6	2-34
45x45L 0N		10	6.7	13.5	13.5	6.0	6.0	1.8	2-34
45x45L 1N		10	6.5	12.6	13.5	5.5	6.0	1.8	2-35
45x45L 2N		10	6.4	11.6	13.5	5.2	6.0	1.7	2-35
45x45L 2NVS		10	6.4	12.6	12.6	5.6	5.6	1.7	2-35
45x45L 3N		10	6.2	12.6	11.7	5.4	5.2	1.7	2-36
45x30°		10	6.9	12.7	15.2	5.0	5.3	1.9	2-36
45x45°		10	7.6	13.4	21.4	5.2	6.4	2.0	2-36
45x60°		10	6.8	11.4	16.9	4.4	5.2	1.8	2-37
45x45L R		10	4.9	8.6	8.6	5.0	5.0	1.3	2-37
45x45HR		10	6.6	11.0	10.7	4.4	4.8	1.8	2-37
45x45		10	7.5	13.8	13.8	6.1	6.1	2.0	2-38
45x60		10	11.0	37.2	22.7	12.4	10.1	3.0	2-39
45x90SL		10	9.0	73.4	18.1	16.3	8.0	2.4	2-39
45x90L		10	11.3	82.0	23.6	18.2	10.5	3.0	2-40
45x90L 2N		10	12.0	85.6	26.9	38.1	6.0	3.2	2-40
45x90L 3NVS		10	11.8	87.2	25.2	38.8	5.6	3.2	2-40
45x90		10	15.4	124.6	32.8	27.7	14.6	4.2	2-41

Profile		Slot	Profile surface	Moment of inertia		Section modulus		Mass	Page
			A (cm^2)	I_x (cm^4)	I_y (cm^4)	W_x (cm^3)	W_y (cm^3)	**m** (kg/m)	
45x180		10	25.5	766.7	57.3	85.2	25.5	6.9	2-41
45x270		10	61.9	3962.0	118.0	300.2	61.6	16.7	2-42
45x90x90L		10	21.2	152.1	152.1	19.1	32.6	5.7	2-42
90x90SL		10	14.1	130.2	130.2	28.9	28.9	3.8	2-43
90x90L		10	24.1	211.1	211.1	46.9	46.9	6.5	2-43
90x90L 4N		10	24.2	227.4	214.7	50.5	47.7	6.5	2-43
90x90L 4NVS		10	24.2	220.9	220.9	49.2	49.2	6.5	2-44
90x90		10	38.4	299.8	299.8	66.7	66.7	10.4	2-44
90x180L		10	42.8	1380.0	401.0	153.3	89.1	11.6	2-45
90x180		10	63.6	2138.3	544.3	237.6	121.0	17.2	2-45
90x360		10	90.2	14065.0	710.0	781.4	157.7	24.4	2-46
15x22.5		10	1.3	0.8	0.3	0.9	0.6	0.3	2-46
15x180		10	11.6	321.7	3.2	35.7	4.2	3.1	2-47
22.5x45		10	4.7	7.1	2.9	3.2	2.6	1.3	2-47
22.5x180		10	21.6	581.0	11.8	66.8	14.7	5.8	2-47
50x50L		10	9.3	21.2	21.2	8.5	8.5	2.5	2-48
50x100L		10	17.2	162.8	42.6	32.6	17.0	4.6	2-48
50x150L		10	25.8	540.0	64.2	72.0	25.7	6.9	2-49
100x100L		10	29.9	318.3	318.3	63.7	63.7	8.1	2-49
100x200L		10	54.0	2133.1	602.1	213.3	120.4	14.6	2-50
60x60L		10	9.6	32.4	32.4	10.8	10.8	2.6	2-50
60x60		10	14.4	52.2	52.2	17.4	17.4	3.9	2-51
60x90		10	25.8	214.2	90.5	47.6	30.2	7.0	2-51

Profile		Slot	Profile surface	Moment of inertia		Section modulus		Mass	Page
			A (cm^2)	I_x (cm^4)	I_y (cm^4)	W_x (cm^3)	W_y (cm^3)	**m** (kg/m)	
Rectangular tube 50x50		10	4.5	15.1	15.1	5.7	5.7	1.2	2-52
Frame profile 22.5x30		10	3.2	1.7	3.0	1.5	2.0	0.9	2-54
Frame profile 22.5x45		10	3.4	6.7	1.7	2.8	1.3	0.9	2-55
Angle profile		10	4.5	8.8	6.9	3.2	2.3	1.2	2-56
Suspension profile		10	2.0	2.0	0.5	2.7	0.3	0.6	2-57
Slotted plate 30x100 L/R		10	9.7	88.8	9.2	17.8	6.0	2.6	2-59
Slotted plate 30x100 M		10	9.7	88.8	9.2	17.8	6.0	2.6	2-59
Profile rail 30x45C		10	4.4	10.3	5.6	4.2	3.7	1.2	2-62
U-profile		10	4.4	10.4	8.3	4.6	4.1	1.2	2-63
SP 2/R		8	5.2	4.3	11.7	2.4	5.2	1.5	2-63
SP 2/B		10	10.4	49.6	25.8	12.1	11.5	2.8	2-64
SP 2/B-50		8/10	6.9	16.1	16.9	5.3	7.5	1.9	2-64
SP 2/B-100		10	11.9	95.1	30.4	20.0	13.5	3.2	2-64
SP 2/BH		10	12.4	53.7	28.6	14.0	13.8	3.3	2-65
SP 4/R		10	26.13	222.0	95.5	84.86	16.41	3.5	2-65
D28			2.4	1.5	1.5	1.1	1.1	0.7	2-67
D28x55			5.9	3.2	88.3	2.3	32.1	1.6	2-68
D28L			1.8	1.3	1.3	1.0	1.0	0.5	2-71
D28L; N10			2.6	1.2	2.0	0.8	1.4	0.7	2-71
Section profile MV45x45		10	6.2	11.8	10.5	–	–	1.7	12-21
30x30 WG30		8	3.2	2.5	3.0	1.6	1.9	0.9	10-7
30x30 WG40		8	3.2	2.4	2.9	1.5	1.8	0.9	10-7
30x45 WG30		8	4.5	7.3	4.2	3.2	2.7	1.2	10-7
30x45 WG40		8	4.5	6.9	4.1	4.3	1.8	1.2	10-7







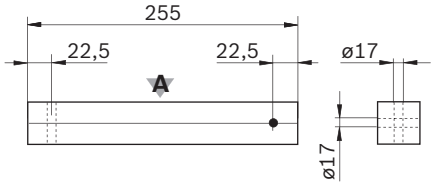


Profile finishing

Profile finishing is required whenever interlocking connectors are used. Bores must be added for bolt connectors or threads cut in central bores, for example. This requires machining with standard dimensions. However, individual customer requirements can only be satisfied by customized profile finishes for all points along the profile.
Rexroth offers a standardized approach for these complex requirements, with three options to help you order the perfect profile finish:

Example: 40x40L

3 842 933 126 / 255 D17 D17V

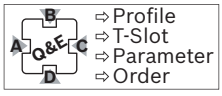


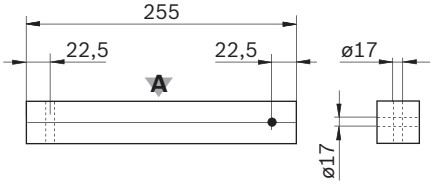
00133799

Standard profile finishes with fixed material numbers
For certain profiles, you can receive selected profile finishes with a fixed material number. This is the easiest way to order the appropriate profile finish for our proven interlocking profile connectors.
The available profile finishes are shown in pictograms in the order tables.

Example: 40x40L 2N

3 842 993 720 / 255 /
A=D17/-; B=-/D17



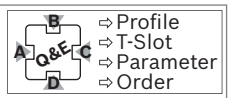


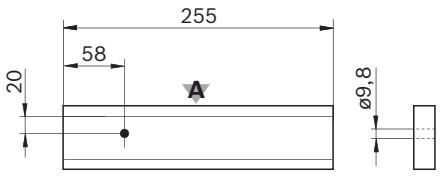
00133800

Quick & Easy – standard profile finishes
All profile finishes with standard dimensions: available for all profiles thanks to simple configuration with Quick & Easy.
For more information on the available profile finishes, see the fold-out section at the end of the catalog.

Example: 20x60

3 842 993 698 / 255 /
[B=DI; PS=58; OS=20;DM=9,8]





00133801

Quick & Easy – individual profile finishes
Get the greatest possible flexibility in defining your profile finishes. Individual finishing options can be achieved in virtually any combination and nearly every point along the profile.
For more information, see the fold-out section at the end of the catalog.

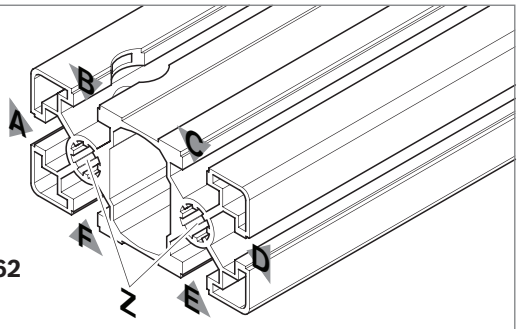


eShop and MT*pro* – software tools for designers, planners, and purchasers

Quick & Easy is supported by Rexroth's eShop and the MT*pro* profile configurator.

We offer:

- Customer-friendly configurations
- Generation of 3D CAD models for designers
- Drawings at the press of a button
- Integration of frames/profiles in layouts
- Easy ordering at the click of a mouse



45x90L
3 842 993 662

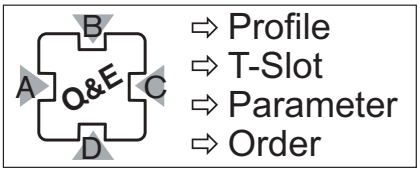
3 842 993 662	/ 393	/ B = D17/-
Material number	Length	Standard finish through hole D17 in slot B

Quick & Easy – four steps for simple ordering

The type of profile finishing is defined in an order key; all finishes for a profile can be summarized in one order key.

1. Select profile cross-section and length.
2. Specify slot for finishing:
All profile slots are identified with letters (A, B, C, etc.) in a clockwise direction (see profile dimension images).
3. Define parameters:
   - Type of finishing (drilling, milling, miter cut)
   - Distance from profile end
4. Place order:
Conventionally by fax or, for even greater convenience, online in our eShop.

Logical structure of the order key
Material number/length/[slot designation = finishing; parameter set]

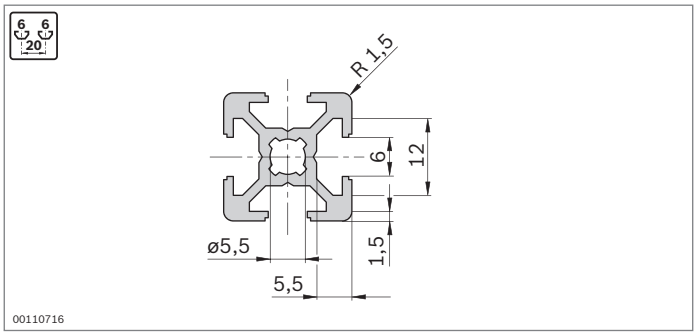


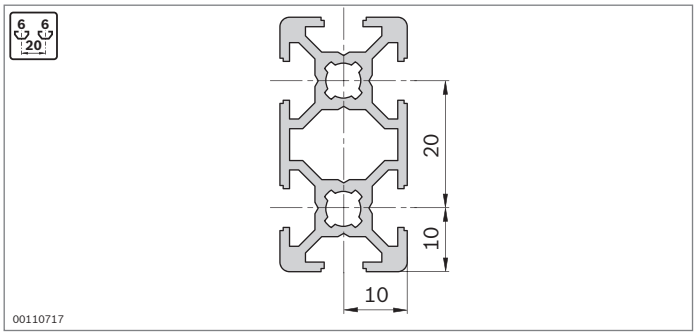
Strut profiles with 6 mm slot

Strut profiles with 6 mm slot for light structures, such as supports and lab fixtures.

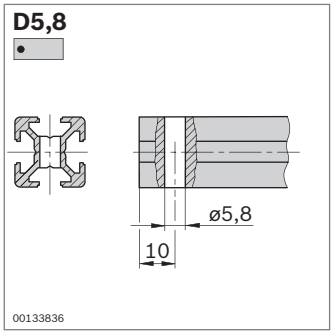
The 20x40 and 20x60 profiles are especially suitable for reinforcing; the 20x40x40 profile is suitable for constructing showcases, flow racks, and enclosures.

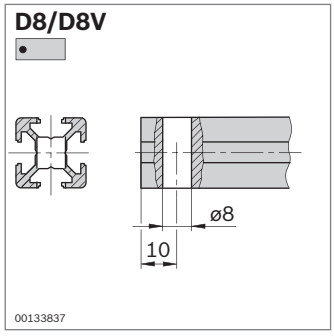
Slot, modular dimensions, central bore

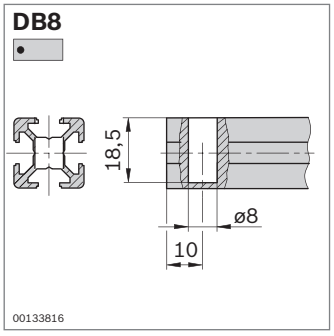


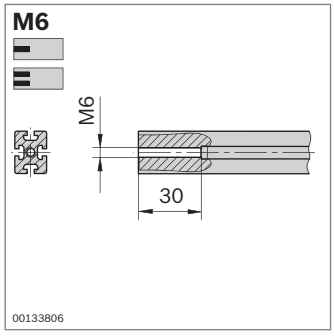


Profile finishing







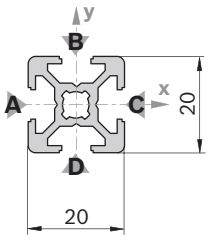


Minimum profile lengths (mm) for Quick & Easy standard profile finishes on one or both sides

	–	M6	D5.8	D8/DB8
–	50	50	50	50
M6	50	70	50	70
D5.8	50	50	50	50
D8/DB8	50	50	50	50

20x20

A = 1,6 cm²
I_x = 0,7 cm⁴
I_y = 0,7 cm⁴
W_x = 0,7 cm³
W_y = 0,7 cm³
m = 0,4 kg/m



19168

20x20			L (mm)	No.
	1 pc		50 ... 3000	**3 842 992 888/L**
	1 pc	M6	50 ... 3000	**3 842 993 230/L**
	1 pc	M6 M6	70 ... 3000	**3 842 993 231/L**
	1 pc	M6 D8	70 ... 3000	**3 842 993 494/L**
	1 pc	D8	50 ... 3000	**3 842 993 493/L**
	1 pc	D8 D8	50 ... 3000	**3 842 993 495/L**
	1 pc	D8 D8V	50 ... 3000	**3 842 993 496/L**
	20 pcs		3000	**3 842 517 179**

Cap	Color	ESD		No.
20x20 (1x)	Light gray		20	**3 842 517 614**
20x20 (1x)	Black		100	**3 842 517 243**

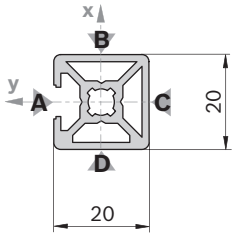
Quick & Easy (p. 2-8; see fold-out section)

20x20	3 842 993 694/...
Length L (mm)	50 ... 3000
Standard profile finishes (note minimum length, p. 2-10)	M6/D5.8/D8/DB8
Individual profile finishes (L_{max} = 2300 mm)	DI/DIS/MT/MTS/ MI/MIS/DG[1)]

[1)] DG_{max} = 45°; L_{min1}/L_{min2} = 335/370 mm

20x20 1N

A = 1,9 cm²
I_x = 0,8 cm⁴
I_y = 0,8 cm⁴
W_x = 0,8 cm³
W_y = 0,8 cm³
m = 0,5 kg/m



19169

Cap: see 20x20

20x20 1N			L (mm)	No.
	1 pc		50 ... 3000	**3 842 993 421/L**
	20 pcs		3000	**3 842 536 475**

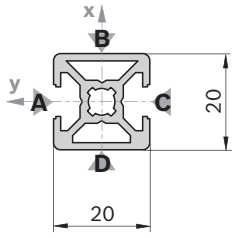
Quick & Easy (p. 2-8; see fold-out section)

20x20 1N	3 842 993 690/...
Length L (mm)	50 ... 3000
Standard profile finishes (note minimum length, p. 2-10)	M6/D5.8/D8/DB8
Individual profile finishes (L_{max} = 2300 mm)	DI/DIS/MT/MTS/ MI/MIS/DG[1)]

[1)] DG_{max} = 45°; L_{min1}/L_{min2} = 335/370 mm

20x20 2N

A = 1,8 cm²
I_x = 0,7 cm⁴
I_y = 0,8 cm⁴
W_x = 0,7 cm³
W_y = 0,8 cm³
m = 0,5 kg/m



19170

Cap: see 20x20

20x20 2N			L (mm)	No.
	1 pc		50 ... 3000	**3 842 993 422/L**
	20 pcs		3000	**3 842 536 478**

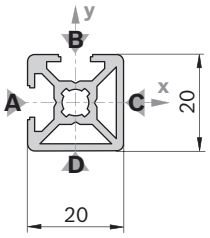
Quick & Easy (p. 2-8; see fold-out section)

20x20 2N	3 842 993 691/...
Length L (mm)	50 ... 3000
Standard profile finishes (note minimum length, p. 2-10)	M6/D5.8/D8/DB8
Individual profile finishes (L_{max} = 2300 mm)	DI/DIS/MT/MTS/ MI/MIS/DG[1)]

[1)] DG_{max} = 45°; L_{min1}/L_{min2} = 335/370 mm

20x20 2NVS

A = 1,8 cm²
I_x = 0,7 cm⁴
I_y = 0,7 cm⁴
W_x = 0,7 cm³
W_y = 0,7 cm³
m = 0,5 kg/m



19171

Cap: see 20x20

20x20 2NVS		L (mm)	No.
1 pc		50 ... 3000	**3 842 992 924/L**
20 pcs		3000	**3 842 519 658**

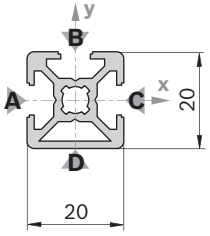
Quick & Easy (p. 2-8; see fold-out section)

20x20 2NVS	3 842 993 692/....
Length L (mm)	50 ... 3000
Standard profile finishes (note minimum length, p. 2-10)	M6/D5.8/D8/DB8
Individual profile finishes (L_{max} = 2300 mm)	DI/DIS/MT/MTS/ MI/MIS/DG[1)]

[1)] DG_{max} = 45°; L_{min1}/L_{min2} = 335/370 mm

20x20 3N

A = 1,7 cm²
I_x = 0,7 cm⁴
I_y = 0,8 cm⁴
W_x = 0,7 cm³
W_y = 0,7 cm³
m = 0,5 kg/m



19172

Cap: see 20x20

20x20 3N		L (mm)	No.
1 pc		50 ... 3000	**3 842 992 889/L**
20 pcs		3000	**3 842 517 180**

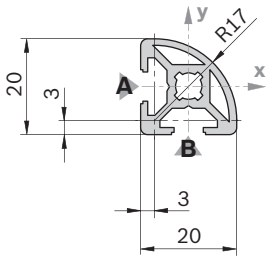
Quick & Easy (p. 2-8; see fold-out section)

20x20 3N	3 842 993 693/...
Length L (mm)	50 ... 3000
Standard profile finishes (note minimum length, p. 2-10)	M6/D5.8/D8/DB8
Individual profile finishes (L_{max} = 2300 mm)	DI/DIS/MT/MTS/ MI/MIS/DG[1)]

[1)] DG_{max} = 45°; L_{min1}/L_{min2} = 335/370 mm

20x20 R

A = 1,6 cm²
I_x = 0,6 cm⁴
I_y = 0,6 cm⁴
W_x = 0,5 cm³
W_y = 0,5 cm³
m = 0,4 kg/m



19173

Cap	Color	ESD		No.
20x20 R (1x)	Black		20	**3 842 517 247**

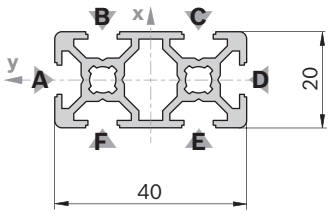
20x20 R		L (mm)	No.
1 pc		50 ... 3000	**3 842 992 890/L**
20 pcs		3000	**3 842 517 183**

Quick & Easy (p. 2-8; see fold-out section)

20x20 R	3 842 993 695/....
Length L (mm)	50 ... 3000
Standard profile finishes (note minimum length, p. 2-10)	M6
Individual profile finishes (L_{max} = 2300 mm)	–

20x40

A = 2,9 cm²
I_x = 4,6 cm⁴
I_y = 1,2 cm⁴
W_x = 2,5 cm³
W_y = 1,4 cm³
m = 0,8 kg/m



19174

Cap	Color	ESD		No.
20x20 (2x)	Light gray		20	**3 842 517 614**
20x20 (2x)	Black		100	**3 842 517 243**

20x40		L (mm)	No.
1 pc		50 ... 3000	**3 842 992 891/L**
1 pc	D8	50 ... 3000	**3 842 993 497/L**
1 pc	D8 D8	50 ... 3000	**3 842 993 499/L**
1 pc	D8 D8V	50 ... 3000	**3 842 993 500/L**
1 pc	D8V	50 ... 3000	**3 842 993 498/L**
1 pc	D8V D8V	50 ... 3000	**3 842 993 501/L**
24 pcs		3000	**3 842 537 816**

Profile finishes: D8: in slots B/F, C/E
D8V: in slots A/D

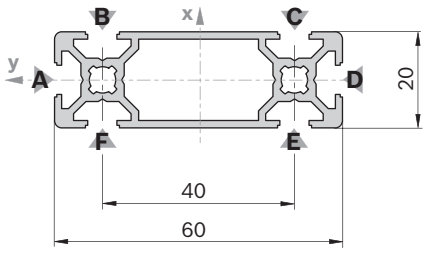
Quick & Easy (p. 2-8; see fold-out section)

20x40	3 842 993 696/...
Length L (mm)	50 ... 3000
Standard profile finishes (note minimum length, p. 2-10)	M6/D5.8/D8/DB8
Individual profile finishes (L_{max} = 2300 mm)	DI/DIS/MT/MTS/ MI/MIS/DG[1]

[1] DG_{max} = 45°; L_{min1}/L_{min2} = 370/440 mm

20x60

A = 3,5 cm²
I_x = 14,2 cm⁴
I_y = 1,7 cm⁴
W_x = 4,7 cm³
W_y = 1,7 cm³
m = 0,9 kg/m



19175

Cap	Color	ESD		No.
20x60 (1x)	Black		20	**3 842 523 354**

20x60		L (mm)	No.
1 pc		50 ... 3000	**3 842 992 992/L**
16 pcs		3000	**3 842 537 819**

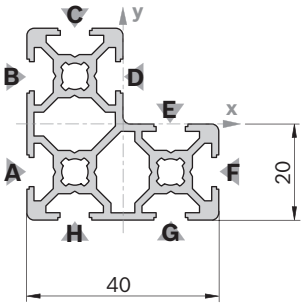
Quick & Easy (p. 2-8; see fold-out section)

20x60	3 842 993 698/...
Length L (mm)	50 ... 3000
Standard profile finishes (note minimum length, p. 2-10)	M6/D5.8 (B,C,E,F)[1]/ D8 (B,C,E,F)[1]/DB8
Individual profile finishes (L_{max} = 2300 mm)	DI/DIS/MT/MTS/ MI/MIS/DG[2]

[1] For the specified slots
[2] DG_{max} = 45°; L_{min1}/L_{min2} = 404/508 mm

20x40x40

A = 4,2 cm²
I_x = 6,0 cm⁴
I_y = 6,0 cm⁴
W_x = 2,6 cm³
W_y = 2,6 cm³
m = 1,1 kg/m



19176

Cap	Color	ESD		No.
20x20 (3x)	Light gray		20	**3 842 517 614**
20x20 (3x)	Black		100	**3 842 517 243**

20x40x40		L (mm)	No.
1 pc		50 ... 3000	**3 842 992 991/L**
16 pcs		3000	**3 842 537 818**

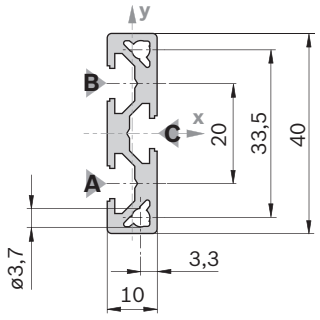
Quick & Easy (p. 2-8; see fold-out section)

20x40x40	3 842 993 697/...
Length L (mm)	50 ... 3000
Standard profile finishes (note minimum length, p. 2-10)	M6/D5.8/D8/DB8
Individual profile finishes (L_{max} = 2300 mm)	DI/DIS/MT/MTS/ MI/MIS/DG[1]

[1] DG_{max} = 45°; L_{min1}/L_{min2} = 370/440 mm

10x40

A = 2,1 cm²
I_x = 3,2 cm⁴
I_y = 0,2 cm⁴
W_x = 1,6 cm³
W_y = 0,4 cm³
m = 0,6 kg/m



19177

Cap	Color	ESD		No.
10x40 (1x)	Black		20	**3 842 526 822**

10x40		L (mm)	No.
1 pc		50 ... 3000	**3 842 993 077/L**
10 pcs		3000	**3 842 526 817**

Quick & Easy (p. 2-8; see fold-out section)

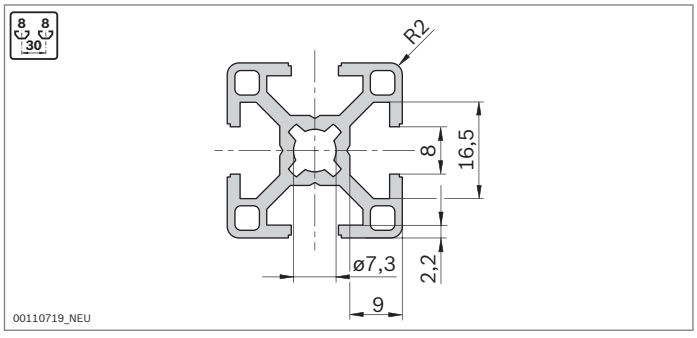
10x40	3 842 993 683/...
Length L (mm)	50 ... 3000
Standard profile finishes (note minimum length, p. 2-10)	D5.8/D8
Individual profile finishes	–

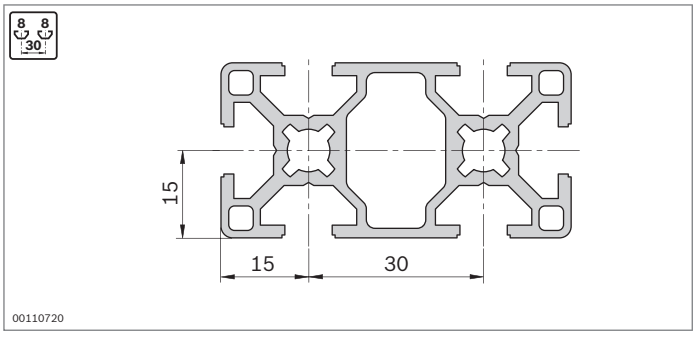
Strut profiles with 8 mm slot

Strut profiles with a 8 mm slot are suitable for medium loads, such as material shuttles, light fixtures, frames and partition walls.

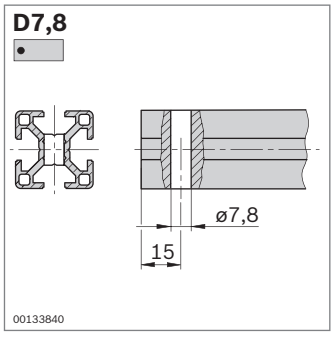
Profile 30x60x60 is suitable for constructing showcases and flow racks.
Attractive covers and hoods can be designed with radius profiles.

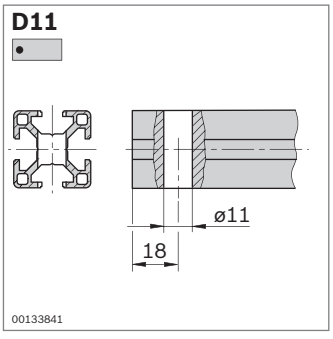
Slot, modular dimensions, central bore

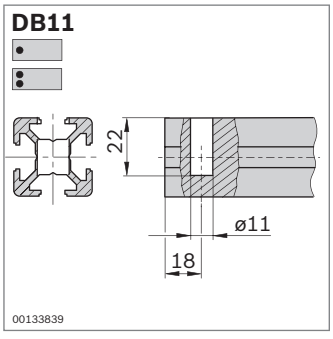


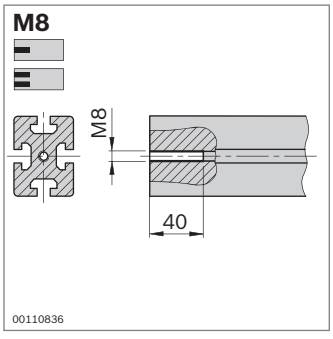


Profile finishing







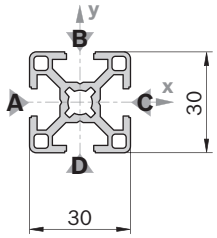


Minimum profile lengths (mm) for Quick & Easy standard profile finishes on one or both sides

	–	M8	D7.8	D11/DB11
–	50	50	50	50
M8	50	80	62	70
D7.8	50	62	60	50
D11/DB11	50	70	50	60

30x30

A = 3,1 cm²
I_x = 2,8 cm⁴
I_y = 2,8 cm⁴
W_x = 1,8 cm³
W_y = 1,8 cm³
m = 0,9 kg/m



19178

30x30		L (mm)	No.
	1 pc	50 ... 5600	**3 842 990 720/L**
	1 pc M8	50 ... 5600	**3 842 990 721/L**
	1 pc M8 M8	80 ... 5600	**3 842 990 723/L**
	1 pc M8 D11	70 ... 5600	**3 842 990 724/L**
	1 pc D7,8 D7,8	60 ... 5600	**3 842 992 965/L**
	1 pc D11	50 ... 5600	**3 842 990 722/L**
	1 pc D11 D11	60 ... 5600	**3 842 990 725/L**
	1 pc D11 D11V	60 ... 5600	**3 842 990 726/L**
	20 pcs	5600	**3 842 509 178**

Cap	Color	ESD		No.
30x30 (1x)	Light gray		20	**3 842 516 506**
30x30 (1x)	Black		100	**3 842 501 232**
30x30 (1x)	Black		20	**3 842 517 057**

Cap with hole	Color	ESD		No.
30x30 (1x)	Black		20	**3 842 503 143**

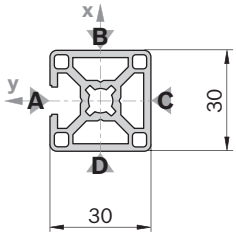
Quick & Easy (p. 2-8; see fold-out section)

30x30	3 842 993 703/...
Length L (mm)	50 ... 5600
Standard profile finishes (note minimum length, p. 2-15)	M8/D7.8/D11/DB11
Individual profile finishes (L_{max} = 4900 mm)	DI/DIS/MT/MTS/ MI/MIS/DG[1)]

[1)] DG_{max} = 45°; L_{min1}/L_{min2} = 352/404 mm

30x30 1N

A = 3,7 cm²
I_x = 3,1 cm⁴
I_y = 3,5 cm⁴
W_x = 2,0 cm³
W_y = 2,3 cm³
m = 1,0 kg/m



19179

Cap: see 30x30

30x30 1N		L (mm)	No.
	1 pc	50 ... 5600	**3 842 992 397/L**
	20 pcs	5600	**3 842 506 948**

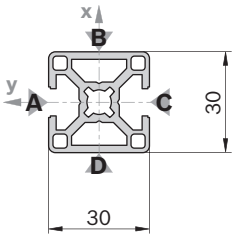
Quick & Easy (p. 2-8; see fold-out section)

30x30 1N	3 842 993 704/...
Length L (mm)	50 ... 5600
Standard profile finishes (note minimum length, p. 2-15)	M8/D7.8/D11/DB11
Individual profile finishes (L_{max} = 4900 mm)	DI/DIS/MT/MTS/ MI/MIS/DG[1)]

[1)] DG_{max} = 45°; L_{min1}/L_{min2} = 352/404 mm

30x30 2N

A = 3,7 cm²
I_x = 3,1 cm⁴
I_y = 3,5 cm⁴
W_x = 2,0 cm³
W_y = 2,3 cm³
m = 1,0 kg/m



19180

Cap: see 30x30

30x30 2N		L (mm)	No.
	1 pc	50 ... 5600	**3 842 992 399/L**
	20 pcs	5600	**3 842 506 950**

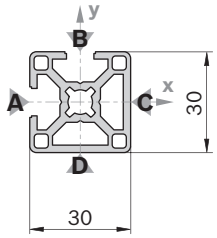
Quick & Easy (p. 2-8; see fold-out section)

30x30 2N	3 842 993 705/...
Length L (mm)	50 ... 5600
Standard profile finishes (note minimum length, p. 2-15)	M8/D7.8/D11/DB11
Individual profile finishes (L_{max} = 4900 mm)	DI/DIS/MT/MTS/ MI/MIS/DG[1)]

[1)] DG_{max} = 45°; L_{min1}/L_{min2} = 352/404 mm

30x30 2NVS

A = 3,5 cm²
I_x = 3,1 cm⁴
I_y = 3,1 cm⁴
W_x = 2,0 cm³
W_y = 2,0 cm³
m = 1,0 kg/m



19181

Cap: see 30x30

30x30 2NVS		L (mm)	No.
1 pc		50 ... 5600	**3 842 992 398/L**
20 pcs		5600	**3 842 506 949**

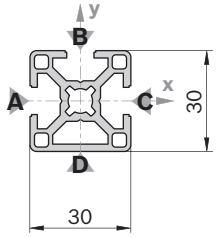
Quick & Easy (p. 2-8; see fold-out section)

30x30 2NVS	3 842 993 706/...
Length L (mm)	50 ... 5600
Standard profile finishes (note minimum length, p. 2-15)	M8/D7.8/D11/DB11
Individual profile finishes (L_{max} = 4900 mm)	DI/DIS/MT/MTS/ MI/MIS/DG[1)]

[1)] DG_{max} = 45°; L_{min1}/L_{min2} = 352/404 mm

30x30 3N

A = 3,3 cm²
I_x = 3,1 cm⁴
I_y = 2,8 cm⁴
W_x = 2,3 cm³
W_y = 2,1 cm³
m = 0,9 kg/m



19182

Cap: see 30x30

30x30 3N		L (mm)	No.
1 pc		50 ... 5600	**3 842 992 400/L**
20 pcs		5600	**3 842 506 951**

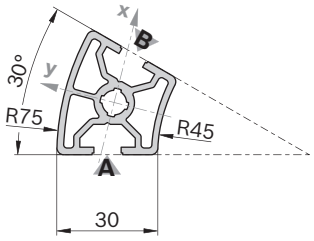
Quick & Easy (p. 2-8; see fold-out section)

30x30 3N	3 842 993 707/...
Length L (mm)	50 ... 5600
Standard profile finishes (note minimum length, p. 2-15)	M8/D7.8/D11/DB11
Individual profile finishes (L_{max} = 4900 mm)	DI/DIS/MT/MTS/ MI/MIS/DG[1)]

[1)] DG_{max} = 45°; L_{min1}/L_{min2} = 352/404 mm

30x30°

A = 3,7 cm²
I_x = 3,5 cm⁴
I_y = 3,6 cm⁴
W_x = 2,0 cm³
W_y = 1,9 cm³
m = 1,0 kg/m



19183

Cap	Color	ESD		No.
30x30° (1x)	Black		20	**3 842 524 050**

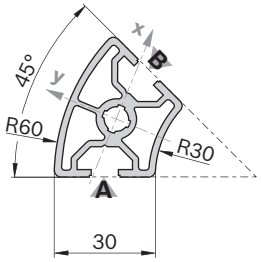
30x30°		L (mm)	No.
1 pc		50 ... 5600	**3 842 993 010/L**
20 pcs		5600	**3 842 524 031**

Quick & Easy (p. 2-8; see fold-out section)

30x30°	3 842 993 708/...
Length L (mm)	50 ... 5600
Standard profile finishes (note minimum length, p. 2-15)	M8
Individual profile finishes	–

30x45°

A = 4,0 cm²
I_x = 3,6 cm⁴
I_y = 5,1 cm⁴
W_x = 2,1 cm³
W_y = 2,3 cm³
m = 1,1 kg/m



19184

Cap	Color	ESD		No.
30x45° (1x)	Black		20	**3 842 524 051**

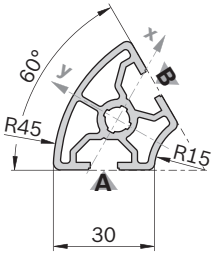
30x45°		**L** (mm)	**No.**
1 pc		50 ... 5600	**3 842 993 011/L**
20 pcs		5600	**3 842 524 034**

Quick & Easy (p. 2-8; see fold-out section)

30x45°	**3 842 993 711/...**
Length L (mm)	50 ... 5600
Standard profile finishes (note minimum length, p. 2-15)	M8
Individual profile finishes	–

30x60°

A = 3,6 cm²
I_x = 3,0 cm⁴
I_y = 4,1 cm⁴
W_x = 1,7 cm³
W_y = 1,9 cm³
m = 1,0 kg/m



19185

Cap	Color	ESD		No.
30x60° (1x)	Black		20	**3 842 524 052**

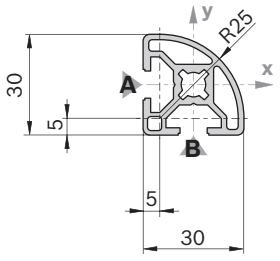
30x60°		**L** (mm)	**No.**
1 pc		50 ... 5600	**3 842 993 012/L**
20 pcs		5600	**3 842 524 037**

Quick & Easy (p. 2-8; see fold-out section)

30x60°	**3 842 993 714/...**
Length L (mm)	50 ... 5600
Standard profile finishes (note minimum length, p. 2-15)	M8
Individual profile finishes	–

30x30 R

A = 2,9 cm²
I_x = 2,3 cm⁴
I_y = 2,3 cm⁴
W_x = 1,4 cm³
W_y = 1,4 cm³
m = 0,8 kg/m



19186

Cap	Color	ESD		No.
30x30 R (1x)	Black		20	**3 842 517 248**

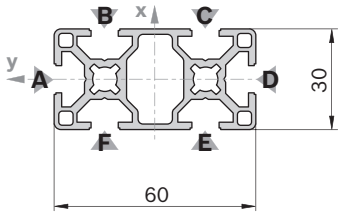
30x30 R		**L** (mm)	**No.**
1 pc		50 ... 5600	**3 842 992 896/L**
20 pcs		5600	**3 842 517 198**

Quick & Easy (p. 2-8; see fold-out section)

30x30 R	**3 842 993 709/...**
Length L (mm)	50 ... 5600
Standard profile finishes (note minimum length, p. 2-15)	M8/DB11
Individual profile finishes	–

30x60

A = 5,5 cm²
I_x = 19,6 cm⁴
I_y = 5,1 cm⁴
W_x = 7,0 cm³
W_y = 3,9 cm³
m = 1,5 kg/m



19187

30x60			L (mm)	No.
	1 pc		50 ... 5600	**3 842 992 457/L**
	1 pc	M8	50 ... 5600	**3 842 992 458/L**
	1 pc	M8 M8	80 ... 5600	**3 842 992 926/L**
	1 pc	D11	50 ... 5600	**3 842 992 459/L**
	1 pc	D11 D11	60 ... 5600	**3 842 992 460/L**
	1 pc	D11 D11V	60 ... 5600	**3 842 992 463/L**
	1 pc	D11V D11V	60 ... 5600	**3 842 992 462/L**
	10 pcs		5600	**3 842 512 603**

Profile finishes: M8: in all core holes
D11: in slots B/F, C/E
D11V: in slots A/D

Cap	Color	ESD		No.
30x30 (2x)	Light gray		20	**3 842 516 506**
30x60 (1x)	Black		100	**3 842 540 870**
30x30 (2x)	Black	ESD	20	**3 842 517 057**

Cap with hole	Color	ESD		No.
30x30 (2x)	Black		20	**3 842 503 143**

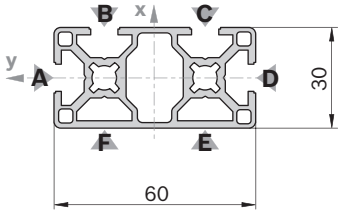
Quick & Easy (p. 2-8; see fold-out section)

30x60	3 842 993 712/...
Length L (mm)	50 ... 5600
Standard profile finishes (note minimum length, p. 2-15)	M8/D7.8/D11/DB11
Individual profile finishes (L_{max} = 4900 mm)	DI/DIS/MT/MTS/ MI/MIS/DG[1)]

[1)] DG_{max} = 45°; L_{min1}/L_{min2} = 404/508 mm

30x60 4N

A = 5,8 cm²
I_x = 20,2 cm⁴
I_y = 5,5 cm⁴
W_x = 6,7 cm³
W_y = 3,8 cm³
m = 1,6 kg/m



19188

Cap: see 30x60

30x60 4N			L (mm)	No.
	1 pc		50 ... 6000	**3 842 993 420/L**
	10 pcs		6070	**3 842 536 472**

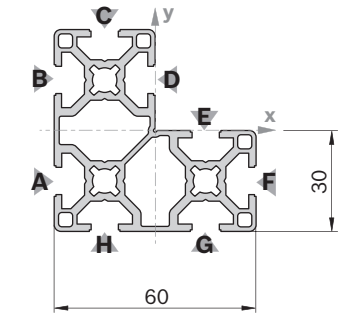
Quick & Easy (p. 2-8; see fold-out section)

30x60 4N	3 842 993 713/...
Length L (mm)	50 ... 6000
Standard profile finishes (note minimum length, p. 2-15)	M8/D7.8/D11/DB11
Individual profile finishes (L_{max} = 5400 mm)	DI/DIS/MT/MTS/ MI/MIS/DG[1)]

[1)] DG_{max} = 45°; L_{min1}/L_{min2} = 404/508 mm

30x30x60

A = 8,2 cm²
I_x = 26,2 cm⁴
I_y = 26,2 cm⁴
W_x = 7,6 cm³
W_y = 7,6 cm³
m = 2,2 kg/m



19189

Cap	Color	ESD		No.
30x30 (3x)	Black		20	**3 842 501 232**

30x60x60			L (mm)	No.
	1 pc		50 ... 5600	**3 842 993 016/L**
	20 pcs		5600	**3 842 524 049**

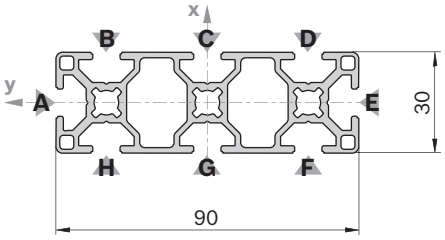
Quick & Easy (p. 2-8; see fold-out section)

30x60x60	3 842 993 715/...
Length L (mm)	50 ... 5600
Standard profile finishes (note minimum length, p. 2-15)	M8/D7.8/D11/DB11
Individual profile finishes (L_{max} = 4900 mm)	DI/DIS/MT/MTS/ MI/MIS/DG[1)]

[1)] DG_{max} = 45°; L_{min1}/L_{min2} = 404/508 mm

30x90

A = 7,7 cm²
I_x = 60,7 cm⁴
I_y = 7,3 cm⁴
W_x = 13,5 cm³
W_y = 4,9 cm³
m = 2,1 kg/m



8 8 30

19190

Cap	Color	ESD		No.
30x30 (3x)	Light gray		20	**3 842 516 506**
30x30 (3x)	Black		100	**3 842 501 232**
30x30 (3x)	Black	⚠	20	**3 842 517 057**

Cap with hole	Color	ESD		No.
30x30 (3x)	Black		20	**3 842 503 143**

30x90		L (mm)	No.
20 pcs		6070	**3 842 541 937**

Quick & Easy (p. 2-8; see fold-out section)

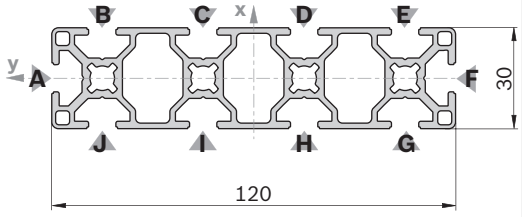
30x90	3 842 993 762/...
Length L (mm)	50 ... 6000
Standard profile finishes (note minimum length, p. 2-15)	M8/D7.8 (B,C,D,F,G,H)[1]/ D11 (B,C,D,F,G,H)[1]/DB11
Individual profile finishes (L_{max} = 5400 mm)	DI/DIS/MT/MTS/ MI/MIS/DG[2]

[1] For the specified slots

[2] DG_{max} = 45°; L_{min1}/L_{min2} = 150/150 mm

30x120

A = 9,9 cm²
I_x =136,3 cm⁴
I_y = 9,6 cm⁴
W_x = 22,7 cm³
W_y = 6,4 cm³
m = 2,7 kg/m



8 8 30

19191

Cap	Color	ESD		No.
30x30 (4x)	Light gray		20	**3 842 516 506**
30x60 (2x)	Black		100	**3 842 540 870**
30x30 (4x)	Black	⚠	20	**3 842 517 057**

Cap with hole	Color	ESD		No.
30x30 (4x)	Black		20	**3 842 503 143**

30x120		L (mm)	No.
20 pcs		6070	**3 842 541 939**

Quick & Easy (p. 2-8; see fold-out section)

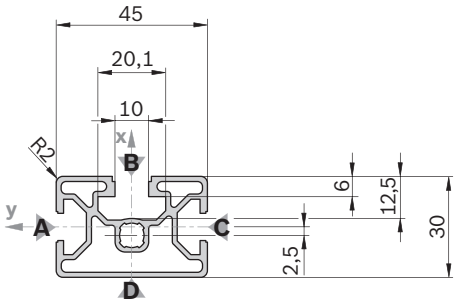
30x120	3 842 993 763/...
Length L (mm)	50 ... 6000
Standard profile finishes (note minimum length, p. 2-15)	M8/D7.8 (B,C,D,E, G,H,I,J)[1]/D11 (B,C,D,E, G,H,I,J)[1]/DB11
Individual profile finishes (L_{max} = 5400 mm)	DI/DIS/MT/MTS/ MI/MIS/DG[2]

[1] For the specified slots

[2] DG_{max} = 45°; L_{min1}/L_{min2} = 150/150 mm

30x45

A = 4,0 cm²
I_x = 8,1 cm⁴
I_y = 3,9 cm⁴
W_x = 3,9 cm³
W_y = 2,9 cm³
m = 1,1 kg/m



19192

Cap	Color	ESD		No.
30x45 (1x)	Black		20	**3 842 531 219**

Cap with hole	Color	ESD		No.
30x45 (1x)	Black		20	**3 842 531 220**

30x45		L (mm)	No.
1 pc		50 ... 5600	**3 842 992 430/L**
1 pc	M8	50 ... 5600	**3 842 992 431/L**
18 pcs		5600	**3 842 511 704**

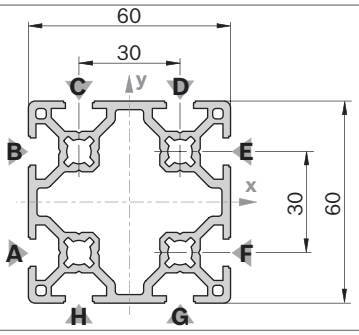
Quick & Easy (p. 2-8; see fold-out section)

30x45	3 842 993 710/...
Length L (mm)	50 ... 5600
Standard profile finishes (note minimum length, p. 2-15)	M8/D7.8 (A,C)[1]/ D9.8 (B)[1]/D11 (A,C)[1]/ DB11/D17 (B)[1]
Individual profile finishes (L_{max} = 5400 mm)	DI/DIS/MT/MTS/ MI/MIS/DG[2]

[1] For the specified slots
[2] DG_{max} = 45°; L_{min1}/L_{min2} = 378/456 mm

60x60 8N

A = 9,8 cm²
I_x = 39,7 cm⁴
I_y = 39,7 cm⁴
W_x = 13,2 cm³
W_y = 13,2 cm³
m = 2,6 kg/m



19193

Cap	Color	ESD		No.
60x60 8N (1x)	Light gray		20	**3 842 535 586**

60x60 8N		L (mm)	No.
1 pc		50 ... 6000	**3 842 993 033/L**
20 pcs		6070	**3 842 535 176**

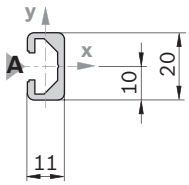
Quick & Easy (p. 2-8; see fold-out section)

60x60 8N	3 842 993 669/...
Length L (mm)	50 ... 6000
Standard profile finishes (note minimum length, p. 2-15)	M8/D7.8/D11/DB11
Individual profile finishes (L_{max} = 5400 mm)	DI/DIS/MT/MTS/ MI/MIS/DG[2]

[2] DG_{max} = 45°; L_{min1}/L_{min2} = 404/508 mm

11x20

A = 1,0 cm²
I_x = 0,5 cm⁴
I_y = 0,1 cm⁴
W_x = 0,7 cm³
W_y = 0,3 cm³
m = 0,3 kg/m



19194

Cap	Color	ESD		No.
11x20 (1x)	Black		20	**3 842 513 584**

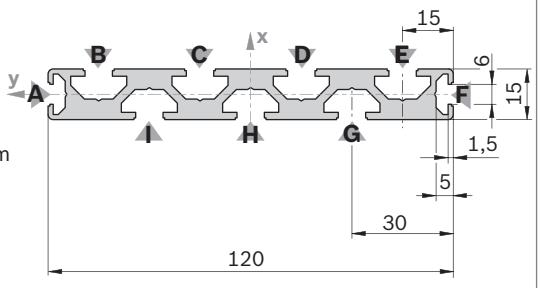
11x20		L (mm)	No.
1 pc		50 ... 2000	**3 842 992 476/L**
10 pcs		2000	**3 842 513 581**

Quick & Easy (p. 2-8; see fold-out section)

11x20	3 842 993 688/...
Length L (mm)	50 ... 2000
Standard profile finishes (note minimum length, p. 2-15)	D7.8/D11
Individual profile finishes	–

15x120

A = 9,0 cm²
I_x = 110,4 cm⁴
I_y = 2,2 cm⁴
W_x = 18,4 cm³
W_y = 2,7 cm³
m = 2,4 kg/m



19195

Cap	Color	ESD		No.
15x120 (1x)	Black		20	**3 842 526 823**

15x120		L (mm)	No.
1 pc		50 ... 3000	**3 842 993 078/L**
10 pcs		3000	**3 842 537 821**

Quick & Easy (p. 2-8; see fold-out section)

15x120	3 842 993 684/...
Length L (mm)	80 ... 3000
Standard profile finishes (note minimum length, p. 2-15)	D7.8 (B,C,D,E,G,H,I)[1]/ D11 (B,C,D,E,G,H,I)[1]
Individual profile finishes (L_{max} = 2300 mm)	DI/DIS/MT/MTS/ MI/MIS

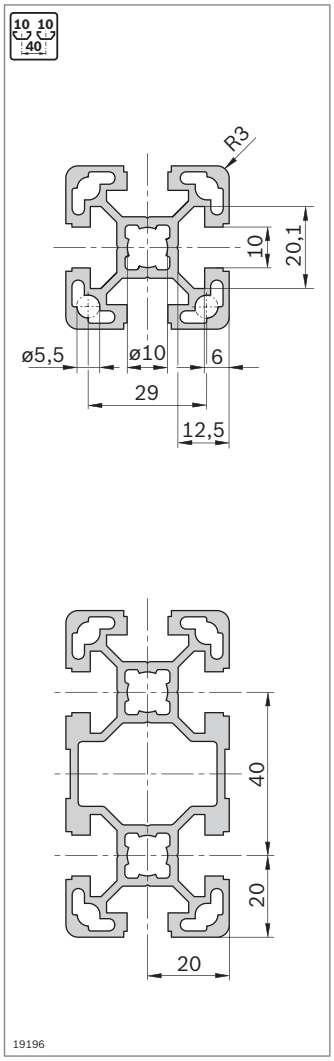
[1] For the specified slots

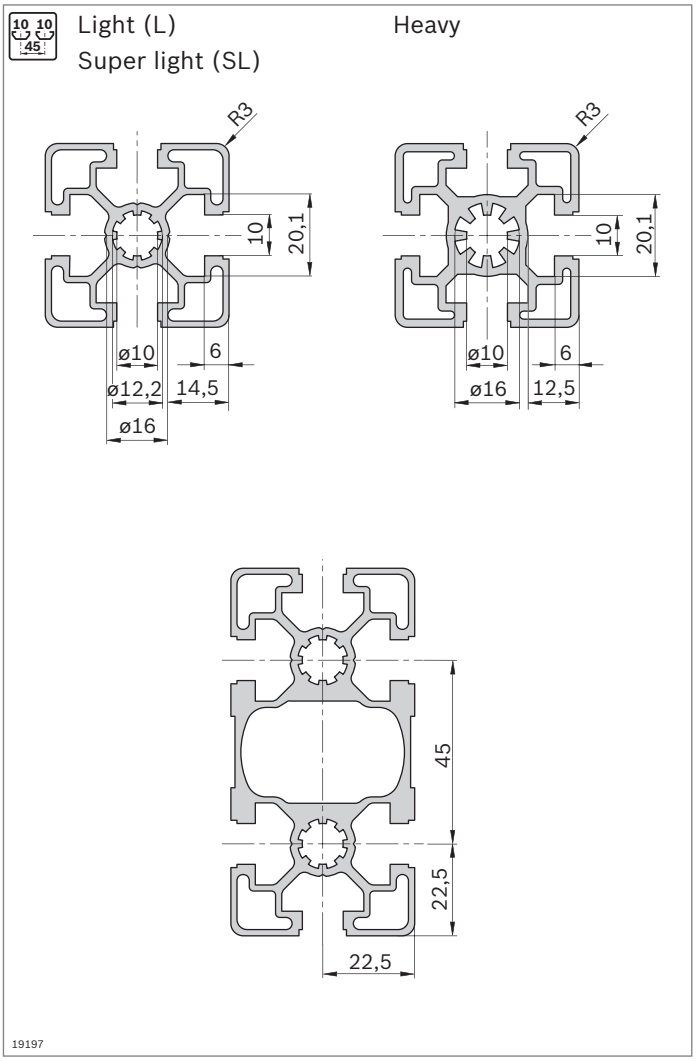
Strut profiles with 10 mm slot

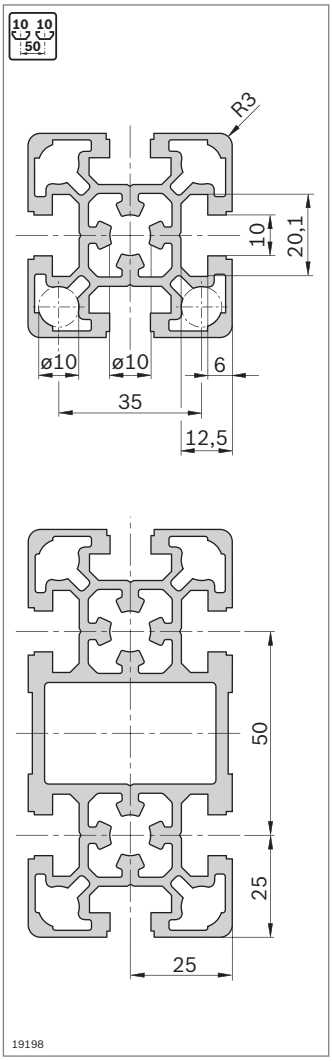
The Rexroth modular profile system, with 10 mm slots in the modular dimensions 40 mm, 45 mm, 50 mm, and 60 mm, covers all conventional profile dimensions on the world market.

Thanks to their computer-optimized construction, the strut profiles L with 10 mm slot (modular dimensions 40 mm, 45 mm, and 50 mm, e.g. 50x50L) provide high strengths using a minimum of material. This gives you a cost-effective and stable solution for the construction of tables, protective enclosures, or frames, for instance.

Slot, modular dimensions, central bore







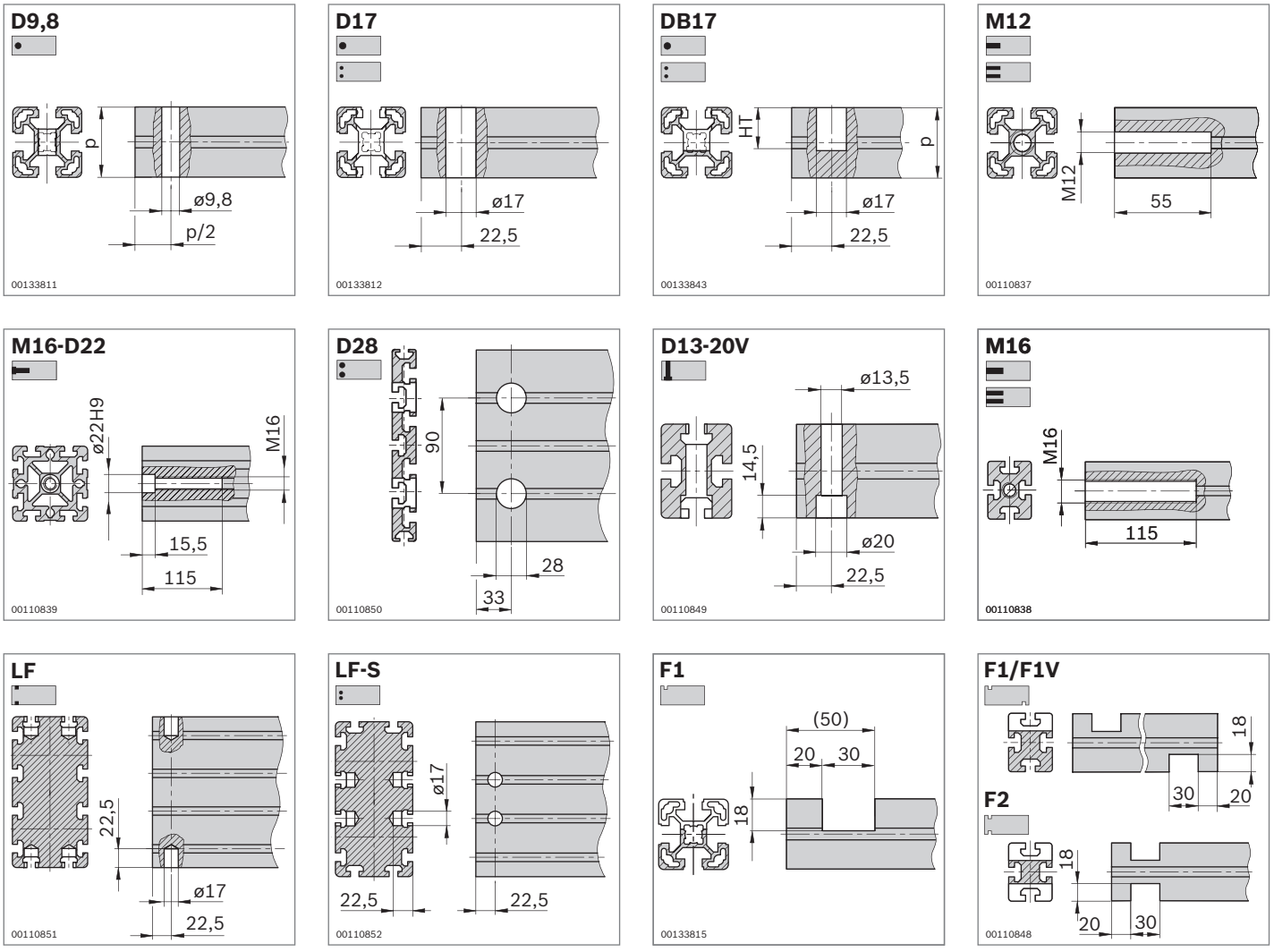
Minimum profile lengths (mm) for Quick & Easy standard profile finishes on one or both sides

	–	M12	M16	D9.8	D17/DB17	F1
–	50	60	120	50	60	60
M12	60	110	180	90	60	110
M16	120	180	240	150	170	170
D9.8	50	90	150	80	70	90
D17/DB17	60	90	150	70	80	90
F1	60	110	170	90	90	80

For applications with high loads, we recommend especially stable profiles with 10 mm slots, e.g. for heavy work tables, fixtures, machine frames, transport shuttles, protective enclosures, and handling systems.

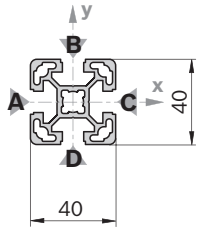
Due to its very sturdy design, this slot allows maximum strength connections.

Profile finishing



40x40L

A = 5,6 cm²
I_x = 9,1 cm⁴
I_y = 9,1 cm⁴
W_x = 4,5 cm³
W_y = 4,5 cm³
m = 1,5 kg/m





19199

40x40L		L (mm)	No.
	1 pc	50 ... 6000	**3 842 993 120/L**
	1 pc M12	60 ... 6000	**3 842 993 121/L**
	1 pc M12 M12	110 ... 6000	**3 842 993 122/L**
	1 pc M12 D17	90 ... 6000	**3 842 993 123/L**
	1 pc D17	50 ... 6000	**3 842 993 124/L**
	1 pc D17 D17	80 ... 6000	**3 842 993 125/L**
	1 pc D17 D17V	80 ... 6000	**3 842 993 126/L**
	1 pc D9,8 D9,8	80 ... 6000	**3 842 993 129/L**
	20 pcs	6070	**3 842 529 339**

Cap	Color	ESD		No.
40x40 (1x)	Light gray		20	**3 842 536 437**
40x40 (1x)	Black		100	**3 842 528 968**

Cap with hole	Color	ESD		No.
40x40 (1x)	Black		20	**3 842 529 045**

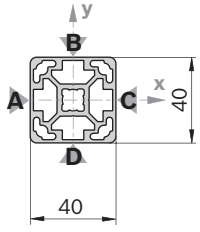
Quick & Easy (p. 2-8; see fold-out section)

40x40L	3 842 993 724/...
Length L (mm)	50 ... 6000
Standard profile finishes (note minimum length, p. 2-24)	M12/D9.8/D17/DB17/ F1 (A)[1]
Individual profile finishes (L_{max} = 5400 mm)	DI/DIS/MT/MTS/ MI/MIS/DG[2]

[1] For the specified slots
[2] DG_{max} = 45°; L_{min1}/L_{min2} = 370/440 mm

40x40L 0N

A = 6,3 cm²
I_x = 10,4 cm⁴
I_y = 10,4 cm⁴
W_x = 5,2 cm³
W_y = 5,2 cm³
m = 1,7 kg/m





19200

Cap: see 40x40

40x40L 0N	L (mm)	No.
20 pcs	6070	**3 842 540 954**

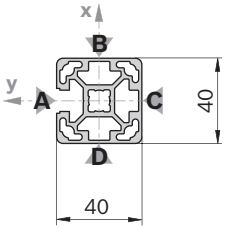
Quick & Easy (p. 2-8; see fold-out section)

40x40L 0N	3 842 993 760/...
Length L (mm)	50 ... 6000
Standard profile finishes (note minimum length, p. 2-24)	M12/D9.8/D17/DB17
Individual profile finishes (L_{max} = 5400 mm)	DI/DIS/MT/MTS/ MI/MIS/DG[1]

[1] DG_{max} = 45°; L_{min1}/L_{min2} = 370/440 mm

40x40L 1N

A = 5,6 cm²
I_x = 9,0 cm⁴
I_y = 9,0 cm⁴
W_x = 4,5 cm³
W_y = 4,5 cm³
m = 1,5 kg/m





19201

Cap: see 40x40

40x40L 1N	L (mm)	No.
1 pc	50 ... 6000	**3 842 993 185/L**
1 pc M12 M12	110 ... 6000	**3 842 993 186/L**
20 pcs	6070	**3 842 529 361**

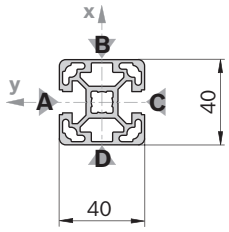
Quick & Easy (p. 2-8; see fold-out section)

40x40L 1N	3 842 993 719/...
Length L (mm)	50 ... 6000
Standard profile finishes (note minimum length, p. 2-24)	M12/D9.8/D17/DB17
Individual profile finishes (L_{max} = 5400 mm)	DI/DIS/MT/MTS/ MI/MIS/DG[1]

[1] DG_{max} = 45°; L_{min1}/L_{min2} = 370/440 mm

40x40L 2N

A = 6,0 cm²
I_x = 9,0 cm⁴
I_y = 10,3 cm⁴
W_x = 4,5 cm³
W_y = 5,2 cm³
m = 1,6 kg/m





19202

Cap: see 40x40

40x40L 2N		**L** (mm)	**No.**
1 pc		50 ... 6000	**3 842 993 187/L**
1 pc	M12 M12	110 ... 6000	**3 842 993 188/L**
20 pcs		6070	**3 842 529 363**

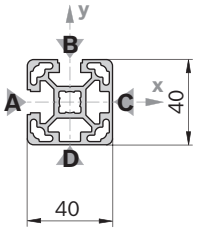
Quick & Easy (p. 2-8; see fold-out section)

40x40L 2N	**3 842 993 720/...**
Length L (mm)	50 ... 6000
Standard profile finishes (note minimum length, p. 2-24)	M12/D9.8/D17/DB17
Individual profile finishes (L_{max} = 5400 mm)	DI/DIS/MT/MTS/ MI/MIS/DG[1)]

[1)] DG_{max} = 45°; L_{min1}/L_{min2} = 370/440 mm

40x40L 2NVS

A = 6,0 cm²
I_x = 9,7 cm⁴
I_y = 9,7 cm⁴
W_x = 4,9 cm³
W_y = 4,9 cm³
m = 1,6 kg/m





19203

Cap: see 40x40

40x40L 2NVS		**L** (mm)	**No.**
1 pc		50 ... 6000	**3 842 993 189/L**
1 pc	M12 M12	110 ... 6000	**3 842 993 190/L**
20 pcs		6070	**3 842 529 365**

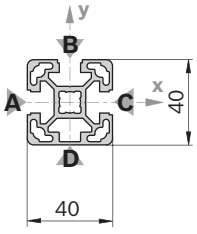
Quick & Easy (p. 2-8; see fold-out section)

40x40L 2NVS	**3 842 993 721/...**
Length L (mm)	50 ... 6000
Standard profile finishes (note minimum length, p. 2-24)	M12/D9.8/D17/DB17
Individual profile finishes (L_{max} = 5400 mm)	DI/DIS/MT/MTS/ MI/MIS/DG[1)]

[1)] DG_{max} = 45°; L_{min1}/L_{min2} = 370/440 mm

40x40L 3N

A = 5,8 cm²
I_x = 9,7 cm⁴
I_y = 9,0 cm⁴
W_x = 4,8 cm³
W_y = 4,5 cm³
m = 1,6 kg/m





19204

Cap: see 40x40

40x40L 3N		**L** (mm)	**No.**
1 pc		50 ... 6000	**3 842 993 191/L**
1 pc	M12 M12	110 ... 6000	**3 842 993 192/L**
20 pcs		6070	**3 842 529 367**

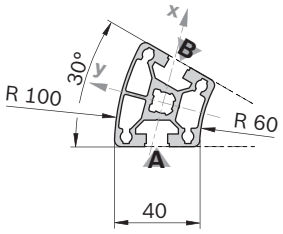
Quick & Easy (p. 2-8; see fold-out section)

40x40L 3N	**3 842 993 722/...**
Length L (mm)	50 ... 6000
Standard profile finishes (note minimum length, p. 2-24)	M12/D9.8/D17/DB17
Individual profile finishes (L_{max} = 5400 mm)	DI/DIS/MT/MTS/ MI/MIS/DG[1)]

[1)] DG_{max} = 45°; L_{min1}/L_{min2} = 370/440 mm

40x30°

A = 6,2 cm²
I_x = 9,4 cm⁴
I_y = 11,8 cm⁴
W_x = 4,7 cm³
W_y = 5,9 cm³
m = 1,7 kg/m





19205

Cap	Color	ESD		No.
40x30° (1x)	Black		20	**3 842 529 049**

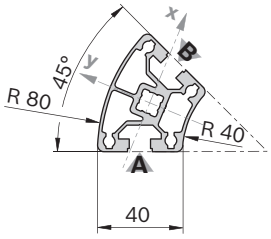
40x30°		L (mm)	No.
1 pc		50 ... 6000	**3 842 993 195/L**
12 pcs		6070	**3 842 529 371**

Quick & Easy (p. 2-8; see fold-out section)

40x30°	3 842 993 718/...
Length L (mm)	50 ... 6000
Standard profile finishes (note minimum length, p. 2-24)	M12
Individual profile finishes	–

40x45°

A = 6,8 cm²
I_x = 9,9 cm⁴
I_y = 16,6 cm⁴
W_x = 5,0 cm³
W_y = 8,3 cm³
m = 1,8 kg/m





19206

Cap	Color	ESD		No.
45x45° (1x)	Black		20	**3 842 529 050**

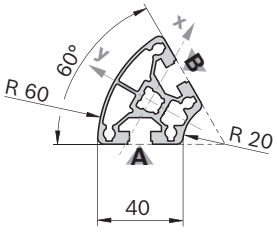
40x45°		L (mm)	No.
1 pc		50 ... 6000	**3 842 993 197/L**
12 pcs		6070	**3 842 529 373**

Quick & Easy (p. 2-8; see fold-out section)

40x45°	3 842 993 726/...
Length L (mm)	50 ... 6000
Standard profile finishes (note minimum length, p. 2-24)	M12
Individual profile finishes	–

40x60°

A = 6,3 cm²
I_x = 8,7 cm⁴
I_y = 13,1 cm⁴
W_x = 4,3 cm³
W_y = 6,5 cm³
m = 1,7 kg/m





19207

Cap	Color	ESD		No.
40x60° (1x)	Black		20	**3 842 529 051**

40x60°		L (mm)	No.
1 pc		50 ... 6000	**3 842 993 198/L**
12 pcs		6070	**3 842 529 375**

Quick & Easy (p. 2-8; see fold-out section)

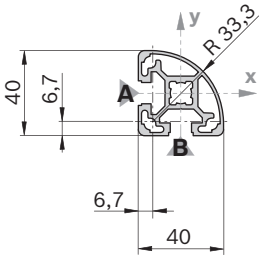
40x60°	3 842 993 727/...
Length L (mm)	50 ... 6000
Standard profile finishes (note minimum length, p. 2-24)	M12
Individual profile finishes	–

40x40L R

A = 5,0 cm²
I_x = 7,2 cm⁴
I_y = 7,2 cm⁴
W_x = 3,6 cm³
W_y = 3,6 cm³
m = 1,3 kg/m



19208



Cap	Color	ESD		No.
40x40 R (1x)	Black		20	**3 842 529 044**

40x40L R		L (mm)	No.
1 pc		50 ... 6000	**3 842 993 184/L**
20 pcs		6070	**3 842 529 359**

Quick & Easy (p. 2-8; see fold-out section)

40x40L R	3 842 993 725/...
Length L (mm)	50 ... 6000
Standard profile finishes (note minimum length, p. 2-24)	M12/DB17 (A,B)[1]
Individual profile finishes	–

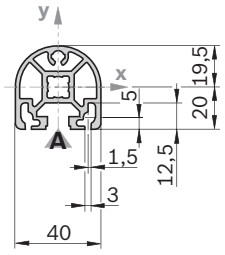
[1] For the specified slots

40x40 HR

A = 5,5 cm²
I_x = 8,1 cm⁴
I_y = 7,6 cm⁴
W_x = 4,0 cm³
W_y = 3,6 cm³
m = 1,5 kg/m



19209



Cap	Color	ESD		No.
40x40 HR (1x)	Black		20	**3 842 530 136**

Cap with hole	Color	ESD		No.
40x40 HR (1x)	Black		20	**3 842 530 136**

40x40 HR		L (mm)	No.
1 pc		50 ... 6000	**3 842 993 256/L**
1 pc	M12 M12	110 ... 6000	**3 842 993 257/L**
20 pcs		6070	**3 842 529 381**

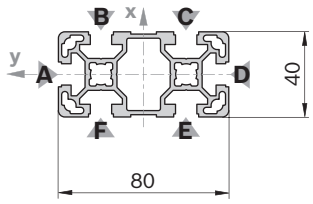
Quick & Easy (p. 2-8; see fold-out section)

40x40 HR	3 842 993 723/...
Length L (mm)	50 ... 6000
Standard profile finishes (note minimum length, p. 2-24)	M12/DB17
Individual profile finishes (L_{max} = 5400 mm)	DI/DIS/MT/MTS/ MI/MIS/DG[1]

[1] DG_{max} = 45°; L_{min1}/L_{min2} = 370/440 mm

40x80L

A = 9,9 cm²
I_x = 63,4 cm⁴
I_y = 17,3 cm⁴
W_x = 15,9 cm³
W_y = 8,7 cm³
m = 2,7 kg/m





19210

Cap	Color	ESD		No.
40x80 (1x)	Light gray		20	**3 842 536 436**
40x80 (1x)	Black		20	**3 842 529 036**

Cap with hole	Color	ESD		No.
40x80 (1x)	Black		20	**3 842 529 046**

40x80L		L (mm)	No.
1 pc		50 ... 6000	**3 842 993 130/L**
1 pc	M12	60 ... 6000	**3 842 993 131/L**
1 pc	M12 M12	110... 6000	**3 842 993 132/L**
1 pc	D17 D17	80 ... 6000	**3 842 993 135/L**
1 pc	D17 D17V	80 ... 6000	**3 842 993 136/L**
1 pc	D17V	60 ... 6000	**3 842 993 137/L**
1 pc	D17V D17V	80 ... 6000	**3 842 993 138/L**
12 pcs		6070	**3 842 529 341**

Profile finishes: M12: in all core holes
D17: in slots B/F, C/E
D17V: in slots A/D

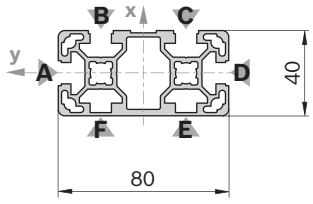
Quick & Easy (p. 2-8; see fold-out section)

40x80L	3 842 993 728/...
Length L (mm)	50 ... 6000
Standard profile finishes (note minimum length, p. 2-24)	M12/D9.8/D17/ DB17/F1 (A,D)[1]
Individual profile finishes (L_{max} = 5400 mm)	DI/DIS/MT/MTS/ MI/MIS/DG[2]

[1] For the specified slots
[2] DG_{max} = 45°; L_{min1}/L_{min2} = 439/578 mm

40x80L 4N

A = 10,4 cm²
I_x = 65,2 cm⁴
I_y = 19,1 cm⁴
W_x = 16,3 cm³
W_y = 9,9 cm³
m = 2,8 kg/m





19211

Cap: see 40x80

40x80L 4N		L (mm)	No.
1 pc		50 ... 6000	**3 842 993 424/L**
12 pcs		6070	**3 842 536 484**

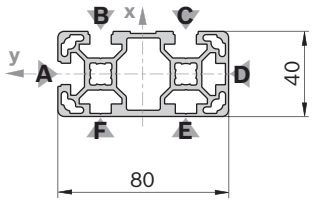
Quick & Easy (p. 2-8; see fold-out section)

40x80L 4N	3 842 993 729/...
Length L (mm)	50 ... 6000
Standard profile finishes (note minimum length, p. 2-24)	M12/D9.8/D17/ DB17/F1 (A,D)[1]
Individual profile finishes (L_{max} = 5400 mm)	DI/DIS/MT/MTS/ MI/MIS/DG[2]

[1] For the specified slots
[2] DG_{max} = 45°; L_{min1}/L_{min2} = 439/578 mm

40x80L 3NVS

A = 10,6 cm²
I_x = 67,8 cm⁴
I_y = 19,0 cm⁴
W_x = 17,0 cm³
W_y = 9,5 cm³
m = 2,9 kg/m





19212

Cap: see 40x80

40x80L 3NVS		L (mm)	No.
1 pc		50 ... 6000	**3 842 993 654/L**
12 pcs		6070	**3 842 538 330**

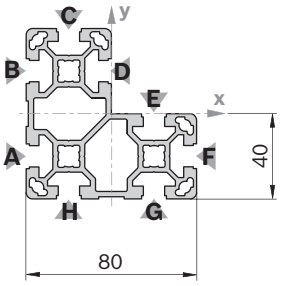
Quick & Easy (p. 2-8; see fold-out section)

40x80L 3NVS	3 842 993 753/...
Length L (mm)	50 ... 6000
Standard profile finishes (note minimum length, p. 2-24)	M12/D9.8/D17/DB17
Individual profile finishes (L_{max} = 5400 mm)	DI/DIS/MT/MTS/ MI/MIS/DG[1]

[1] DG_{max} = 45°; L_{min1}/L_{min2} = 439/578 mm

40x80x80L

A = 15,4 cm²
I_x = 96,6 cm⁴
I_y = 96,6 cm⁴
W_x = 24,2 cm³
W_y = 24,2 cm³
m = 4,2 kg/m





19213

Cap	Color	ESD		No.
40x80x80 (1x)	Black		20	**3 842 529 752**

40x80x80L		L (mm)	No.
1 pc		50 ... 6000	**3 842 993 193/L**
8 pcs		6070	**3 842 537 827**

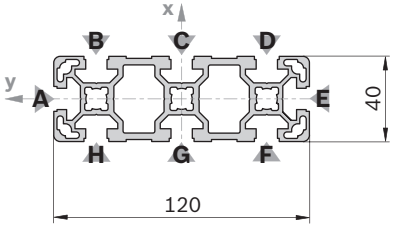
Quick & Easy (p. 2-8; see fold-out section)

40x80x80L	3 842 993 730/...
Length L (mm)	50 ... 6000
Standard profile finishes (note minimum length, p. 2-24)	M12/D9.8/D17/DB17
Individual profile finishes (L_{max} = 5400 mm)	DI/DIS/MT/MTS/ MI/MIS/DG[1]

[1] DG_{max} = 45°; L_{min1}/L_{min2} = 439/578 mm

40x120L

A = 15,5 cm²
I_x = 203,2 cm⁴
I_y = 27,8 cm⁴
W_x = 33,9 cm³
W_y = 13,9 cm³
m = 4,2 kg/m





19214

Cap	Color	ESD		No.
40x40 (1x)	Light gray		20	**3 842 536 437**
40x80 (1x)	Light gray		20	**3 842 536 436**
40x40 (1x)	Black		20	**3 842 528 968**
40x80 (1x)	Black		20	**3 842 529 036**

40x120L		L (mm)	No.
1 pc		50 ... 6000	**3 842 993 139/L**
1 pc	M12	60 ... 6000	**3 842 993 140/L**
1 pc	M12 M12	110 ... 6000	**3 842 993 141/L**
1 pc	D17 D17	80 ... 6000	**3 842 993 142/L**
1 pc	D17V D17V	90 ... 6000	**3 842 993 225/L**
8 pcs		6070	**3 842 537 824**

Profile finishes:
M12: in all core holes
D17: in slots B/H, C/G, D/F
D17V: in slots A/E

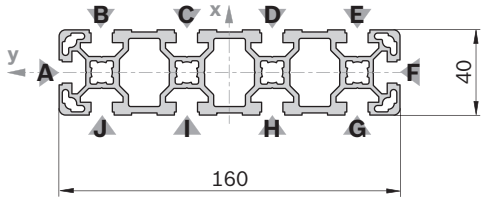
Quick & Easy (p. 2-8; see fold-out section)

40x120L	3 842 993 716/...
Length L (mm)	50 ... 6000
Standard profile finishes (note minimum length, p. 2-24)	M12/D9,8 (B,C,D,F, G,H)[1]/D17 (B,C,D,F, G,H)[1]/DB17/F1 (A,E)[1]
Individual profile finishes (L_{max} = 5400 mm)	DI/DIS/MT/MTS/ MI/MIS/DG[2]

[1] For the specified slots
[2] DG_{max} = 45°; L_{min1}/L_{min2} = 439/578 mm

40x160L

A = 20,5 cm²
I_x = 466,7 cm⁴
I_y = 37,2 cm⁴
W_x = 58,3 cm³
W_y = 18,6 cm³
m = 5,5 kg/m





19215

Cap	Color	ESD		No.
40x80 (2x)	Light gray		20	**3 842 536 436**
40x80 (2x)	Black		20	**3 842 529 036**

40x160L		L (mm)	No.
	1 pc	50 ... 6000	**3 842 993 143/L**
	1 pc M12	60 ... 6000	**3 842 993 144/L**
	1 pc M12 M12	110 ... 6000	**3 842 993 145/L**
	1 pc D17 D17	80 ... 6000	**3 842 993 146/L**
	6 pcs	6070	**3 842 529 345**

Profile finishes: M12: in all core holes
D17: in slots B/J, C/I, D/H, E/G

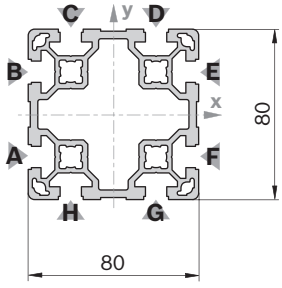
Quick & Easy (p. 2-8; see fold-out section)

40x160L	3 842 993 717/...
Length L (mm)	80 ... 6000
Standard profile finishes (note minimum length, p. 2-24)	M12/D9.8 (B,C,D,E,G,H, I,J)[1]/D17 (B,C,D,E,G,H, I,J)[1]/DB17/F1 (A,F)[1]
Individual profile finishes (L_{max} = 5400 mm)	DI/DIS/MT/MTS/ MI/MIS/DG[2]

[1] For the specified slots
[2] DG_{max} = 45°; L_{min1}/L_{min2} = 439/578 mm

80x80L

A = 18,2 cm²
I_x = 132,1 cm⁴
I_y = 132,1 cm⁴
W_x = 33,0 cm³
W_y = 33,0 cm³
m = 4,9 kg/m





19216

Cap	Color	ESD		No.
80x80 (1x)	Black		20	**3 842 529 039**

80x80L		L (mm)	No.
	1 pc	50 ... 6000	**3 842 993 133/L**
	1 pc M12	60 ... 6000	**3 842 993 134/L**
	1 pc M12 M12	110 ... 6000	**3 842 993 147/L**
	1 pc M12 D17	90 ... 6000	**3 842 993 148/L**
	1 pc D17	60 ... 6000	**3 842 993 149/L**
	1 pc D17 D17	80 ... 6000	**3 842 993 150/L**
	1 pc D17 D17V	80 ... 6000	**3 842 993 151/L**
	6 pcs	6070	**3 842 529 347**

Profile finishes: M12: in all core holes
D17: in slots A/F, B/E
D17V: in slots C/H, D/G

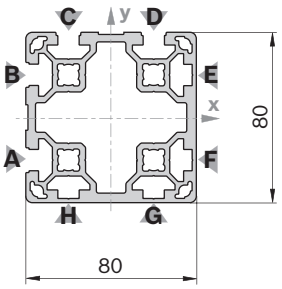
Quick & Easy (p. 2-8; see fold-out section)

80x80L	3 842 993 674/...
Length L (mm)	50 ... 6000
Standard profile finishes (note minimum length, p. 2-24)	M12/D9.8/D17/ DB17/F1
Individual profile finishes (L_{max} = 5400 mm)	DI/DIS/MT/MTS/ MI/MIS/DG[1]

[1] DG_{max} = 45°; L_{min1}/L_{min2} = 439/578 mm

80x80L 4NVS

A = 19,3 cm²
I_x = 142,5 cm⁴
I_y = 142,5 cm⁴
W_x = 35,6 cm³
W_y = 35,6 cm³
m = 5,2 kg/m



19416

Cap: see 80x80

80x80L 4NVS		L (mm)	No.
1 pc		50 ... 6000	**3 842 993 658/L**
6 pcs		6070	**3 842 538 334**

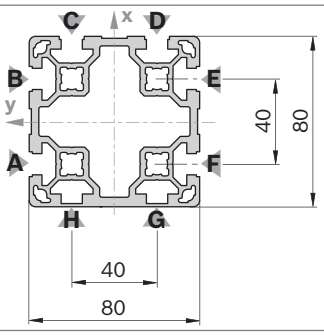
Quick & Easy (p. 2-8; see fold-out section)

80x80L 4NVS	3 842 993 758/...
Length L (mm)	50 ... 6000
Standard profile finishes (note minimum length, p. 2-24)	M12/D9.8/D17/DB17
Individual profile finishes (L_{max} = 5400 mm)	DI/DIS/MT/MTS/ MI/MIS/DG[1]

[1] DG_{max} = 45°; L_{min1}/L_{min2} = 439/578 mm

80x80L 6N

A = 18,8 cm²
I_x = 134,1 cm⁴
I_y = 140,9 cm⁴
W_x = 33,5 cm³
W_y = 36,2 cm³
m = 5,1 kg/m



19417

Cap: see 80x80

80x80L 6N		L (mm)	No.
1 pc		50 ... 6000	**3 842 993 423/L**
6 pcs		6070	**3 842 536 481**

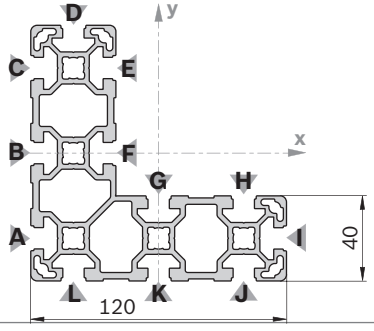
Quick & Easy (p. 2-8; see fold-out section)

80x80L 6N	3 842 993 675/...
Length L (mm)	50 ... 6000
Standard profile finishes (note minimum length, p. 2-24)	M12/D9.8/D17/ DB17/F1 (A,C,F)[1]
Individual profile finishes (L_{max} = 5400 mm)	DI/DIS/MT/MTS/ MI/MIS/DG[2]

[1] For the specified slots
[2] DG_{max} = 45°; L_{min1}/L_{min2} = 439/578 mm

40x120x120L

A = 24,6 cm²
I_x = 318,0 cm⁴
I_y = 318,0 cm⁴
W_x = 42,2 cm³
W_y = 42,2 cm³
m = 6,7 kg/m



19418

Cap	Color	ESD		No.
40x80x80 (1x)	Black		20	**3 842 529 752**
40x40 (2x)	Black		100	**3 842 528 968**

40x120x120L		L (mm)	No.
1 pc		50 ... 6000	**3 842 993 653/L**
4 pcs		6070	**3 842 538 287**

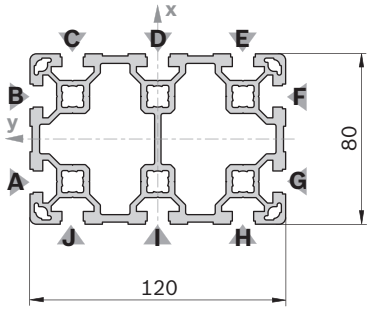
Quick & Easy (p. 2-8; see fold-out section)

40x120x120L	3 842 993 757/...
Length L (mm)	50 ... 6000
Standard profile finishes (note minimum length, p. 2-24)	M12/D9.8 (B,C,J,K)[1]/ D17/DB17 (A,B,C,D,I, J,K,L)[1]/F1 (D,I)[1]
Individual profile finishes (L_{max} = 5400 mm)	DI/DIS/MT/MTS/MI/MIS/ DG[2]

[1] For the specified slots
[2] DG_{max} = 45°; L_{min1}/L_{min2} = 420/540mm

80x120L

A = 25,6 cm²
I_x = 389,2 cm⁴
I_y = 192,8 cm⁴
W_x = 64,9 cm³
W_y = 48,2 cm³
m = 6,9 kg/m



19419

80x120L		L (mm)	No.
1 pc		50 ... 6000	**3 842 993 201/L**
1 pc	M12	60 ... 6000	**3 842 993 202/L**
1 pc	M12 M12	110 ... 6000	**3 842 993 203/L**
1 pc	D17 D17	80 ... 6000	**3 842 993 204/L**
1 pc	D17V D17V	90 ... 6000	**3 842 993 229/L**
4 pcs		6070	**3 842 537 828**

Profile finishes: M12: in all core holes
D17: in slots C/J, D/I, E/H
D17V: in slots A/G, B/F

Cap	Color	ESD		No.
80x120 (1x)	Black		20	**3 842 529 053**

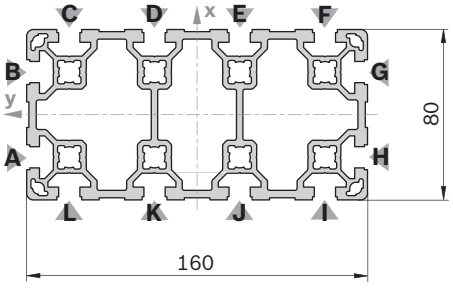
Quick & Easy (p. 2-8; see fold-out section)

80x120L	3 842 993 672/...
Length L (mm)	50 ... 6000
Standard profile finishes (note minimum length, p. 2-24)	M12/D9.8 (C,D,E,H,I, J)[1]/D17 (C,D,E,H,I,J)[1]/ DB17/F1 (A,F)[1]
Individual profile finishes (L_{max} = 5400 mm)	DI/DIS/MT/MTS/ MI/MIS/DG[2]

[1] For the specified slots
[2] DG_{max} = 45°; L_{min1}/L_{min2} = 439/578 mm

80x160L

A = 32,9 cm²
I_x = 850,7 cm⁴
I_y = 253,4 cm⁴
W_x = 106,3 cm³
W_y = 63,4 cm³
m = 8,9 kg/m



19420

80x160L		L (mm)	No.
1 pc		50 ... 6000	**3 842 993 127/L**
1 pc	M12	60 ... 6000	**3 842 993 128/L**
1 pc	M12 M12	110 ... 6000	**3 842 993 152/L**
1 pc	M12 D17	90 ... 6000	**3 842 993 153/L**
1 pc	D17	60 ... 6000	**3 842 993 154/L**
1 pc	D17 D17	80 ... 6000	**3 842 993 155/L**
1 pc	D17V D17V	90 ... 6000	**3 842 993 226/L**
3 pcs		6070	**3 842 529 349**

Profile finishes: M12: in all core holes
D17: in slots C/L, D/K, E/J, F/I
D17V: in slots A/H, B/G

Cap	Color	ESD		No.
80x80 (2x)	Black		20	**3 842 529 039**

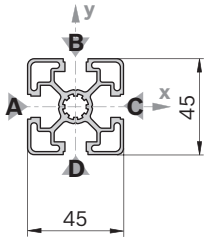
Quick & Easy (p. 2-8; see fold-out section)

80x160L	3 842 993 673/...
Length L (mm)	80 ... 6000
Standard profile finishes (note minimum length, p. 2-24)	M12/D9.8 (C,D,E,F,I, J,K,L)[1]/D17 (C,D,E,F,I,J, K,L)[1]/DB17/F1 (A,G)[1]
Individual profile finishes (L_{max} = 5400 mm)	DI/DIS/MT/MTS/ MI/MIS/DG[2]

[1] For the specified slots
[2] DG_{max} = 45°; L_{min1}/L_{min2} = 460/620 mm

45x45L

A = 6,0 cm²
I_x = 11,7 cm⁴
I_y = 11,7 cm⁴
W_x = 5,2 cm³
W_y = 5,2 cm³
m = 1,6 kg/m





19421

45x45L		L (mm)	No.
	1 pc	50 ... 5600	**3 842 992 425/L**
	1 pc M12	60 ... 5600	**3 842 992 426/L**
	1 pc M12 M12	110 ... 5600	**3 842 992 427/L**
	1 pc M12 D17	90 ... 5600	**3 842 992 960/L**
	1 pc D9,8 D9,8	80 ... 5600	**3 842 992 967/L**
	1 pc D17	60 ... 5600	**3 842 992 953/L**
	1 pc D17 D17	80 ... 5600	**3 842 992 954/L**
	1 pc D17 D17V	80 ... 5600	**3 842 992 956/L**
	20 pcs	5600	**3 842 511 702**

Cap	Color	ESD		No.
45x45 (1x)	Light gray		20	**3 842 517 059**
45x45 (1x)	Black		100	**3 842 502 674**
45x45 (1x)	Black		20	**3 842 517 058**

Cap with hole	Color	ESD		No.
45x45 (1x)	Black		20	**3 842 523 442**

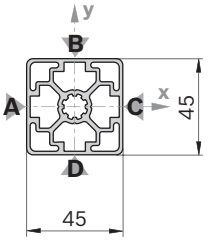
Quick & Easy (p. 2-8; see fold-out section)

45x45L	3 842 993 737/...
Length L (mm)	50 ... 5600
Standard profile finishes (note minimum length, p. 2-24)	M12/D9.8/D17/DB17/ F1 (A)[1]
Individual profile finishes (L_{max} = 4900 mm)	DI/DIS/MT/MTS/ MI/MIS/DG[2]

[1] For the specified slots
[2] DG_{max} = 45°; L_{min1}/L_{min2} = 378/456 mm

45x45L 0N

A = 6,7 cm²
I_x = 13,5 cm⁴
I_y = 13,5 cm⁴
W_x = 6,0 cm³
W_y = 6,0 cm³
m = 1,8 kg/m





19422

Cap: see 45x45

45x45L 0N		L (mm)	No.
	20 pcs	6070	**3 842 540 955**

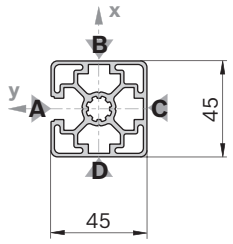
Quick & Easy (p. 2-8; see fold-out section)

45x45L 0N	3 842 993 761/...
Length L (mm)	50 ... 6000
Standard profile finishes (note minimum length, p. 2-24)	M12/D9.8/D17/DB17
Individual profile finishes (L_{max} = 5400 mm)	DI/DIS/MT/MTS/ MI/MIS/DG[1]

[1] DG_{max} = 45°; L_{min1}/L_{min2} = 378/456 mm

45x45L 1N

A = 6,5 cm²
I_x = 12,6 cm⁴
I_y = 13,5 cm⁴
W_x = 5,5 cm³
W_y = 6,0 cm³
m = 1,8 kg/m



19423

Cap: see 45x45

45x45L 1N		**L** (mm)	**No.**
1 pc		50 ... 5600	**3 842 992 401/L**
20 pcs		5600	**3 842 506 956**

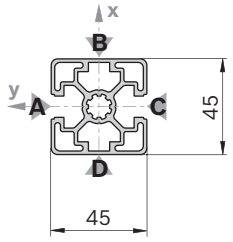
Quick & Easy (p. 2-8; see fold-out section)

45x45L 1N	**3 842 993 738/...**
Length L (mm)	50 ... 5600
Standard profile finishes (note minimum length, p. 2-24)	M12/D9.8/D17/DB17
Individual profile finishes (L_{max} = 4900 mm)	DI/DIS/MT/MTS/ MI/MIS/DG[1)]

[1)] DG_{max} = 45°; L_{min1}/L_{min2} = 378/456 mm

45x45L 2N

A = 6,4 cm²
I_x = 11,6 cm⁴
I_y = 13,5 cm⁴
W_x = 5,2 cm³
W_y = 6,0 cm³
m = 1,7 kg/m



19424

Cap: see 45x45

45x45L 2N		**L** (mm)	**No.**
1 pc		50 ... 5600	**3 842 992 403/L**
20 pcs		5600	**3 842 506 958**

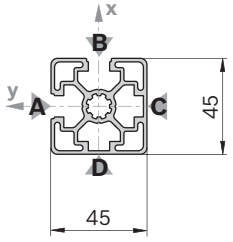
Quick & Easy (p. 2-8; see fold-out section)

45x45L 2N	**3 842 993 739/...**
Length L (mm)	50 ... 5600
Standard profile finishes (note minimum length, p. 2-24)	M12/D9.8/D17/DB17
Individual profile finishes (L_{max} = 4900 mm)	DI/DIS/MT/MTS/ MI/MIS/DG[1)]

[1)] DG_{max} = 45°; L_{min1}/L_{min2} = 378/456 mm

45x45L 2NVS

A = 6,4 cm²
I_x = 12,6 cm⁴
I_y = 12,6 cm⁴
W_x = 5,6 cm³
W_y = 5,6 cm³
m = 1,7 kg/m



19425

Cap: see 45x45

45x45L 2NVS		**L** (mm)	**No.**
1 pc		50 ... 5600	**3 842 992 402/L**
20 pcs		5600	**3 842 506 957**

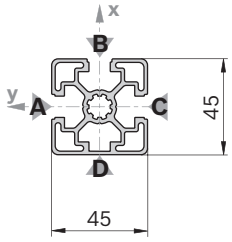
Quick & Easy (p. 2-8; see fold-out section)

45x45L 2NVS	**3 842 993 740/...**
Length L (mm)	50 ... 5600
Standard profile finishes (note minimum length, p. 2-24)	M12/D9.8/D17/DB17
Individual profile finishes (L_{max} = 4900 mm)	DI/DIS/MT/MTS/ MI/MIS/DG[1)]

[1)] DG_{max} = 45°; L_{min1}/L_{min2} = 378/456 mm

45x45L 3N

A = 6,2 cm²
I_x = 12,6 cm⁴
I_y = 11,7 cm⁴
W_x = 5,4 cm³
W_y = 5,2 cm³
m = 1,7 kg/m



19426

Cap: see 45x45

45x45L 3N		L (mm)	No.
1 pc		50 ... 5600	**3 842 992 404/L**
20 pcs		5600	**3 842 506 959**

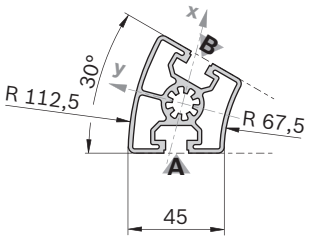
Quick & Easy (p. 2-8; see fold-out section)

45x45L 3N	3 842 993 741/...
Length L (mm)	50 ... 5600
Standard profile finishes (note minimum length, p. 2-24)	M12/D9.8/D17/DB17
Individual profile finishes (L_{max} = 4900 mm)	DI/DIS/MT/MTS/ MI/MIS/DG[1)]

[1)] DG_{max} = 45°; L_{min1}/L_{min2} = 378/456 mm

45x30°

A = 6,9 cm²
I_x = 12,7 cm⁴
I_y = 15,2 cm⁴
W_x = 5,0 cm³
W_y = 5,3 cm³
m = 1,9 kg/m



19427

45x30°		L (mm)	No.
1 pc		50 ... 5600	**3 842 993 013/L**
20 pcs		5600	**3 842 524 040**

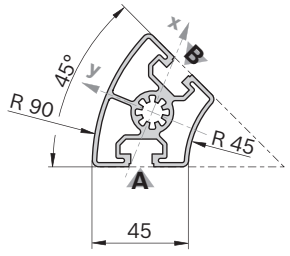
Quick & Easy (p. 2-8; see fold-out section)

45x30°	3 842 993 733/...
Length L (mm)	50 ... 5600
Standard profile finishes (note minimum length, p. 2-24)	M12
Individual profile finishes	–

Cap	Color	ESD		No.
45x30° (1x)	Black		20	**3 842 524 053**

45x45°

A = 7,6 cm²
I_x = 13,4 cm⁴
I_y = 21,4 cm⁴
W_x = 5,2 cm³
W_y = 6,4 cm³
m = 2,0 kg/m



19428

45x45°		L (mm)	No.
1 pc		50 ... 5600	**3 842 993 014/L**
20 pcs		5600	**3 842 524 043**

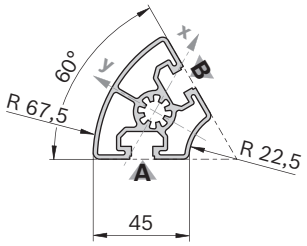
Quick & Easy (p. 2-8; see fold-out section)

45x45°	3 842 993 735/...
Length L (mm)	50 ... 5600
Standard profile finishes (note minimum length, p. 2-24)	M12
Individual profile finishes	–

Cap	Color	ESD		No.
45x45° (1x)	Black		20	**3 842 524 054**

45x60°

A = 6,8 cm²
I_x = 11,4 cm⁴
I_y = 16,9 cm⁴
W_x = 4,4 cm³
W_y = 5,2 cm³
m = 1,8 kg/m



19429

Cap	Color	ESD		No.
45x60° (1x)	Black		20	**3 842 524 055**

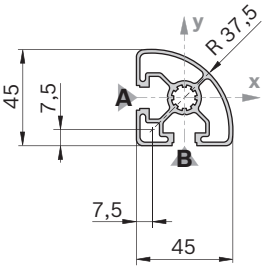
45x60°		L (mm)	No.
1 pc		50 ... 5600	**3 842 993 015/L**
20 pcs		5600	**3 842 524 046**

Quick & Easy (p. 2-8; see fold-out section)

45x60°	3 842 993 744/...
Length L (mm)	50 ... 5600
Standard profile finishes (note minimum length, p. 2-24)	M12
Individual profile finishes	–

45x45L R

A = 4,9 cm²
I_x = 8,6 cm⁴
I_y = 8,6 cm⁴
W_x = 5,0 cm³
W_y = 5,0 cm³
m = 1,3 kg/m



19430

Cap	Color	ESD		No.
45x45 R (1x)	Black		20	**3 842 517 250**

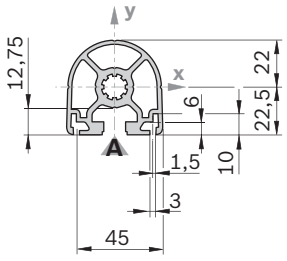
45x45L R		L (mm)	No.
1 pc		50 ... 5600	**3 842 992 897/L**
20 pcs		5600	**3 842 517 200**

Quick & Easy (p. 2-8; see fold-out section)

45x45L R	3 842 993 742/...
Length L (mm)	50 ... 5600
Standard profile finishes (note minimum length, p. 2-24)	M12/DB17
Individual profile finishes	–

45x45 HR

A = 6,6 cm²
I_x = 11,0 cm⁴
I_y = 10,7 cm⁴
W_x = 4,4 cm³
W_y = 4,8 cm³
m = 1,8 kg/m



19431

Cap	Color	ESD		No.
45x45 HR (1x)	Black		20	**3 842 521 265**

45x45 HR		L (mm)	No.
1 pc		50 ... 5600	**3 842 992 945/L**
1 pc	M12	60 ... 5600	**3 842 993 001/L**
1 pc	M12 M12	110 ... 5600	**3 842 992 999/L**
20 pcs		5600	**3 842 525 505**

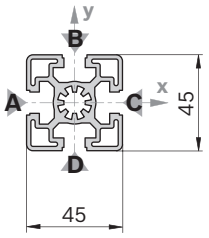
Quick & Easy (p. 2-8; see fold-out section)

45x45 HR	3 842 993 736/...
Length L (mm)	50 ... 5600
Standard profile finishes (note minimum length, p. 2-24)	M12/DB17
Individual profile finishes (L_{max} = 4900 mm)	DI/DIS/MT/MTS/ MI/MIS/DG[1)]

[1)] DG_{max} = 45°; L_{min1}/L_{min2} = 378/456 mm

45x45

A = 7,5 cm²
I_x = 13,8 cm⁴
I_y = 13,8 cm⁴
W_x = 6,1 cm³
W_y = 6,1 cm³
m = 2,0 kg/m





19432

Cap	Color	ESD		No.
45x45 (1x)	Light gray		20	**3 842 517 059**
45x45 (1x)	Black		100	**3 842 502 674**
45x45 (1x)	Black		20	**3 842 517 058**

Cap with hole	Color	ESD		No.
45x45 (1x)	Black		20	**3 842 523 442**

45x45		L (mm)	No.
1 pc		50 ... 5600	**3 842 990 520/L**
1 pc	M12	60 ... 5600	**3 842 990 517/L**
1 pc	M12 M12	110 ... 5600	**3 842 990 518/L**
1 pc	M12 M16	180 ... 5600	**3 842 990 519/L**
1 pc	M12 D17	90 ... 5600	**3 842 990 640/L**
1 pc	M16	120 ... 5600	**3 842 990 521/L**
1 pc	M16 D17	170 ... 5600	**3 842 990 642/L**
1 pc	D9,8 D9,8	70 ... 5600	**3 842 992 969/L**
1 pc	D17	60 ... 5600	**3 842 990 648/L**
1 pc	D17 D17	80 ... 5600	**3 842 990 644/L**
1 pc	D17 D17V	80 ... 5600	**3 842 990 646/L**
20 pcs		5600	**3 842 509 175**

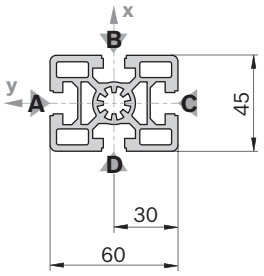
Quick & Easy (p. 2-8; see fold-out section)

45x45	3 842 993 734/...
Length L (mm)	50 ... 5600
Standard profile finishes (note minimum length, p. 2-24)	M12/M16/D9.8/D17/ DB17
Individual profile finishes (L_{max} = 4900 mm)	DI/DIS/MT/MTS/ MI/MIS/DG[1)]

[1)] DG_{max} = 45°; L_{min1}/L_{min2} = 378/456 mm

45x60

A = 11,0 cm²
I_x = 37,2 cm⁴
I_y = 22,7 cm⁴
W_x = 12,4 cm³
W_y = 10,1 cm³
m = 3,0 kg/m



19433

Cap	Color	ESD		No.
45x60 (1x)	Light gray		20	**3 842 517 854**
45x60 (1x)	Black		20	**3 842 515 122**
45x60 (1x)	Black	⚠	20	**3 842 517 855**

Cap with hole	Color	ESD		No.
45x60 (1x)	Black		20	**3 842 191 094**

45x60		L (mm)	No.
1 pc		50 ... 5600	**3 842 990 570/L**
1 pc	M12	60 ... 5600	**3 842 990 571/L**
1 pc	M12 M12	110 ... 5600	**3 842 990 572/L**
1 pc	M12 M16	180 ... 5600	**3 842 990 575/L**
1 pc	M16	120 ... 5600	**3 842 990 573/L**
1 pc	D9,8	50 ... 5600	**3 842 992 376/L**
1 pc	D17	60 ... 5600	**3 842 990 688/L**
1 pc	D17 D17	80 ... 5600	**3 842 990 672/L**
1 pc	D17 D17V	80 ... 5600	**3 842 990 674/L**
1 pc	D9,8V	50 ... 5600	**3 842 992 375/L**
1 pc	D17V	60 ... 5600	**3 842 990 690/L**
1 pc	D17V D17V	90 ... 5600	**3 842 990 670/L**
1 pc	LF LF	80 ... 5600	**3 842 993 085/L**
1 pc	F1 F1	80 ... 5600	**3 842 990 584/L**
20 pcs		5600	**3 842 509 184**

Profile finishing
D9.8, D17: in slots B/D
D9.8, D17V: in slots A/C
LF: in slots A/C
F1: in slot A

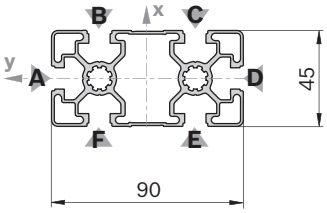
Quick & Easy (p. 2-8; see fold-out section)

45x60	3 842 993 743/...
Length L (mm)	50 ... 5600
Standard profile finishes (note minimum length, p. 2-24)	M12/M16/D9.8/D17/ DB17/F1 (A,C)[1]
Individual profile finishes (L_{max} = 4900 mm)	DI/DIS/MT/MTS/ MI/MIS/DG[2]

[1] For the specified slots
[2] DG_{max} = 45°; L_{min1}/L_{min2} = 404/508 mm

45x90SL

A = 9,0 cm²
I_x = 73,4 cm⁴
I_y = 18,1 cm⁴
W_x = 16,3 cm³
W_y = 8,0 cm³
m = 2,4 kg/m



19434

Cap	Color	ESD		No.
45x90 (1x)	Light gray		20	**3 842 536 438**
45x90 (1x)	Black		20	**3 842 511 783**

Cap with hole	Color	ESD		No.
45x90 (1x)	Black		20	**3 842 511 855**

45x90SL		L (mm)	No.
1 pc		50 ... 6000	**3 842 993 450/L**
12 pcs		6070	**3 842 537 102**

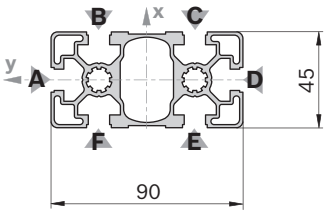
Quick & Easy (p. 2-8; see fold-out section)

45x90SL	3 842 993 759/...
Length L (mm)	50 ... 6000
Standard profile finishes (note minimum length, p. 2-24)	M12/D9.8/D17/DB17
Individual profile finishes (L_{max} = 5400 mm)	DI/DIS/DG[1]

[1] DG_{max} = 45°; L_{min1}/L_{min2} = 456/612 mm

45x90L

A = 11,3 cm²
I_x = 82,0 cm⁴
I_y = 23,6 cm⁴
W_x = 18,2 cm³
W_y = 10,5 cm³
m = 3,0 kg/m





19435

45x90L		L (mm)	No.
1 pc		50 ... 5600	**3 842 992 432/L**
1 pc	M12	60 ... 5600	**3 842 992 453/L**
1 pc	M12 M12	110 ... 5600	**3 842 992 433/L**
1 pc	D17 D17	80 ... 5600	**3 842 992 437/L**
1 pc	D17 D17V	80 ... 5600	**3 842 992 436/L**
1 pc	D17V	60 ... 5600	**3 842 992 452/L**
1 pc	D17V D17V	90 ... 5600	**3 842 992 435/L**
1 pc	LF LF	80 ... 5600	**3 842 993 084/L**
12 pcs		5600	**3 842 511 782**

Profile finishes:
M12: in all core holes
D17: in slots B/F, C/E
D17V: in slots A/D
LF: in slots A/D

Cap	Color	ESD		No.
45x90 (1x)	Light gray		20	**3 842 536 438**
45x90 (1x)	Black		20	**3 842 511 783**

Cap with hole	Color	ESD		No.
45x90 (1x)	Black		20	**3 842 511 855**

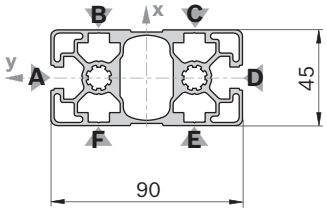
Quick & Easy (p. 2-8; see fold-out section)

45x90L	3 842 993 662/...
Length L (mm)	50 ... 5600
Standard profile finishes (note minimum length, p. 2-24)	M12/D9.8/D17/ DB17/F1 (A,D)[1]
Individual profile finishes (L_{max} = 4900 mm)	DI/DIS/MT/MTS/ MI/MIS/DG[2]

[1] For the specified slots
[2] DG_{max} = 45°; L_{min1}/L_{min2} = 456/612 mm

45x90L 2N

A = 12,0 cm²
I_x = 85,6 cm⁴
I_y = 26,9 cm⁴
W_x = 38,1 cm³
W_y = 6,0 cm³
m = 3,2 kg/m





19436

Cap: see 45x90

45x90L 2N		L (mm)	No.
1 pc		50 ... 6000	**3 842 993 644/L**
12 pcs		6070	**3 842 538 299**

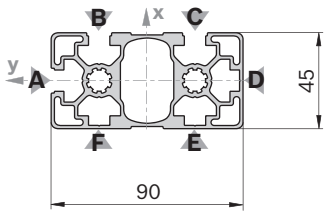
Quick & Easy (p. 2-8; see fold-out section)

45x90L 2N	3 842 993 751/...
Length L (mm)	50 ... 6000
Standard profile finishes (note minimum length, p. 2-24)	M12/D9.8/D17/DB17
Individual profile finishes (L_{max} = 5400 mm)	DI/DIS/MT/MTS/ MI/MIS/DG[1]

[1] DG_{max} = 45°; L_{min1}/L_{min2} = 456/612 mm

45x90L 3NVS

A = 11,8 cm²
I_x = 87,2 cm⁴
I_y = 25,2 cm⁴
W_x = 38,8 cm³
W_y = 5,6 cm³
m = 3,2 kg/m





19437

Cap: see 45x90

45x90L 3NVS		L (mm)	No.
1 pc		50 ... 6000	**3 842 993 635/L**
12 pcs		6070	**3 842 538 298**

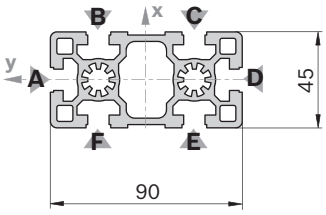
Quick & Easy (p. 2-8; see fold-out section)

45x90L 3NVS	3 842 993 752/...
Length L (mm)	50 ... 6000
Standard profile finishes (note minimum length, p. 2-24)	M12/D9.8/D17/DB17
Individual profile finishes (L_{max} = 5400 mm)	DI/DIS/MT/MTS/ MI/MIS/DG[1]

[1] DG_{max} = 45°; L_{min1}/L_{min2} = 456/612 mm

45x90

A = 15,4 cm²
I_x = 124,6 cm⁴
I_y = 32,8 cm⁴
W_x = 27,7 cm³
W_y = 14,6 cm³
m = 4,2 kg/m



10 10 45

19438

Cap	Color	ESD		No.
45x90 (1x)	Light gray		20	**3 842 536 438**
45x90 (1x)	Black		20	**3 842 511 783**

Cap with hole	Color	ESD		No.
45x90 (1x)	Black		20	**3 842 511 855**

45x90		L (mm)	No.
1 pc		50 ... 5600	**3 842 990 300/L**
1 pc	M12	60 ... 5600	**3 842 990 301/L**
1 pc	M12 M12	110 ... 5600	**3 842 990 302/L**
1 pc	M12 D17	90 ... 5600	**3 842 990 323/L**
1 pc	M12 D17V	90 ... 5600	**3 842 990 305/L**
1 pc	M16	120 ... 5600	**3 842 990 303/L**
1 pc	M16 M16	240 ... 5600	**3 842 990 304/L**
1 pc	M16 D17	170 ... 5600	**3 842 990 325/L**
1 pc	M16 D17V	170 ... 5600	**3 842 990 307/L**
1 pc	D17	60 ... 5600	**3 842 990 329/L**
1 pc	D17 D17	80 ... 5600	**3 842 990 313/L**
1 pc	D17 D17V	90 ... 5600	**3 842 990 311/L**
1 pc	D17V	60 ... 5600	**3 842 990 331/L**
1 pc	D17V D17V	90 ... 5600	**3 842 990 309/L**
12 pcs		5600	**3 842 509 186**

Profile finishes: M12, M16: in all core holes
D17: in slots B/F, C/E
D17V: in slots A/D

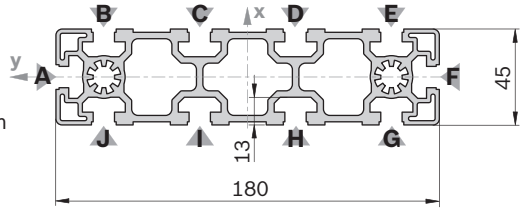
Quick & Easy (p. 2-8; see fold-out section)

45x90	3 842 993 661/...
Length L (mm)	50 ... 5600
Standard profile finishes (note minimum length, p. 2-24)	M12/M16/D9.8/D17/ DB17/F1 (A,D)[1]
Individual profile finishes (L_{max} = 4900 mm)	DI/DIS/MT/MTS/MI/MIS/ DG[2]

[1] For the specified slots
[2] DG_{max} = 45°; L_{min1}/L_{min2} = 456/612 mm

45x180

A = 25,5 cm²
I_x = 766,7 cm⁴
I_y = 57,3 cm⁴
W_x = 85,2 cm³
W_y = 25,5 cm³
m = 6,9 kg/m



10 10 45

19439

Cap	Color	ESD		No.
45x180 (1x)	Black		20	**3 842 503 845**

45x180		L (mm)	No.
1 pc		50 ... 5600	**3 842 990 335/L**
1 pc	M12	60 ... 5600	**3 842 990 336/L**
1 pc	M12 M12	110 ... 5600	**3 842 990 339/L**
1 pc	D17 D17	80 ... 5600	**3 842 990 342/L**
1 pc	D17V D17V	90 ... 5600	**3 842 990 344/L**
6 pcs		5600	**3 842 509 187**

Profile finishes: M12: in all core holes
D17: in slots B/J, E/G
D17V: in slots A/F

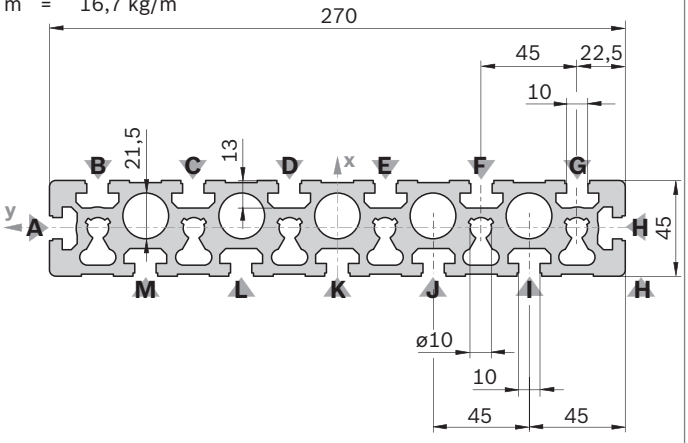
Quick & Easy (p. 2-8; see fold-out section)

45x180	3 842 993 731/...
Length L (mm)	80 ... 5600
Standard profile finishes (note minimum length, p. 2-24)	M12/M16/ D9.8 (B,C,D,E,G,H,I,J)[1]/ D17 (B,C,D,E,G,H,I,J)[1]/ DB17/F1 (A,F)[1]
Individual profile finishes (L_{max} = 4900 mm)	DI/DIS/MT/MTS/ MI/MIS/DG[2]

[1] For the specified slots
[2] DG_{max} = 30°; L_{min1}/L_{min2} = 404/508 mm

45x270

A = 61,9 cm²
I_x = 3962,0 cm⁴
I_y = 118,0 cm⁴
W_x = 300,2 cm³
W_y = 61,6 cm³
m = 16,7 kg/m





19440

45x270		L (mm)	No.
	1 pc	50 ... 5600	**3 842 992 927/L**
	1 pc M12 M12	110 ... 5600	**3 842 992 928/L**
	2 pcs	5600	**3 842 520 025**

Profile finishes: M12: in core holes with C, F slots

Quick & Easy (p. 2-8; see fold-out section)

45x270	3 842 993 732/...
Length L (mm)	80 ... 5600
Standard profile finishes (note minimum length, p. 2-24)	M12/D9.8 (B,C,D,E,F,G, I,J,K,L,M)[1]/D17 (B,C,D,E,F,G,I,J,K,L,M)[1]/ DB17/F1 (A,H)[1]
Individual profile finishes (L_{max} = 4900 mm)	DI/DIS/MT/MTS/MI/MIS

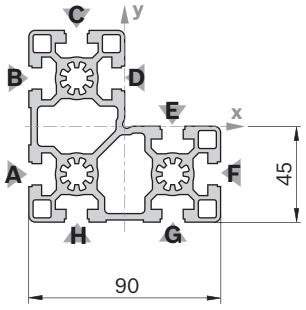
[1] For the specified slots

Cap	Color	ESD		No.
45x90 (3x)	Light gray		20	**3 842 536 438**
45x90 (3x)	Black		20	**3 842 511 783**

45x90x90L

A = 21,2 cm²
I_x = 152,1 cm⁴
I_y = 152,1 cm⁴
W_x = 19,1 cm³
W_y = 32,6 cm³
m = 5,7 kg/m





19441

45x90x90L		L (mm)	No.
	1 pc	50 ... 6000	**3 842 992 387/L**
	1 pc M12	60 ... 6000	**3 842 992 388/L**
	8 pcs	6070	**3 842 537 823**

Profile finishes: M12: in the central bore at the intersection of slots A and H

Quick & Easy (p. 2-8; see fold-out section)

45x90x90L	3 842 993 682/...
Length L (mm)	50 ... 6000
Standard profile finishes (note minimum length, p. 2-24)	M12/D9.8/D17/ DB17 (A,B,C,F,G,H)[1]
Individual profile finishes (L_{max} = 5400 mm)	DI/DIS/MT/MTS/ MI/MIS/DG[2]

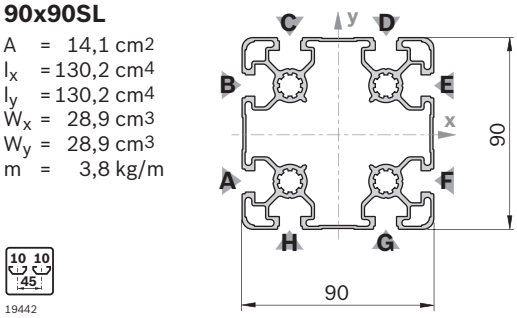
[1] For the specified slots
[2] DG_{max} = 45°; L_{min1}/L_{min2} = 456/612 mm

Cap[1]	Color	ESD		No.
45x90x90 (1x)	Black		20	**3 842 527 988**

[1] The cap is also suitable for use with a hole, which can be broken out.

90x90SL

A = 14,1 cm²
I_x = 130,2 cm⁴
I_y = 130,2 cm⁴
W_x = 28,9 cm³
W_y = 28,9 cm³
m = 3,8 kg/m



19442

Cap	Color	ESD		No.
90x90 (1x)	Black		20	**3 842 516 214**

90x90SL		L (mm)	No.
1 pc		50 ... 6000	**3 842 993 449/L**
6 pcs		6070	**3 842 537 100**

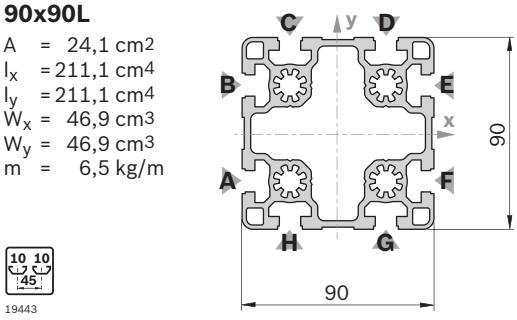
Quick & Easy (p. 2-8; see fold-out section)

90x90SL	3 842 993 681/...
Length L (mm)	50 ... 6000
Standard profile finishes (note minimum length, p. 2-24)	M12/D9.8/D17/DB17
Individual profile finishes (L_{max} = 5400 mm)	DI/DIS/DG[1)]

[1)] DG_{max} = 45°; L_{min1}/L_{min2} = 456/612 mm

90x90L

A = 24,1 cm²
I_x = 211,1 cm⁴
I_y = 211,1 cm⁴
W_x = 46,9 cm³
W_y = 46,9 cm³
m = 6,5 kg/m



19443

Cap	Color	ESD		No.
90x90 (1x)	Black		20	**3 842 516 214**

90x90L			L (mm)	No.
1 pc			50 ... 5600	**3 842 992 415/L**
1 pc	M12		60 ... 5600	**3 842 992 416/L**
1 pc	M12	M12	110 ... 5600	**3 842 992 422/L**
1 pc	M12	D17	90 ... 5600	**3 842 992 423/L**
1 pc	D17		60 ... 5600	**3 842 992 417/L**
1 pc	D17	D17	80 ... 5600	**3 842 992 420/L**
1 pc	D17	D17V	80 ... 5600	**3 842 992 421/L**
1 pc	LF	LF	80 ... 5600	**3 842 992 418/L**
1 pc	LF	M12	90 ... 5600	**3 842 992 419/L**
6 pcs			5600	**3 842 509 658**

Profile finishes:
M12: in all core holes
D17: in slots C/H, D/G
D17V: in slots A/F, B/E
LF: in slots C/H, D/G

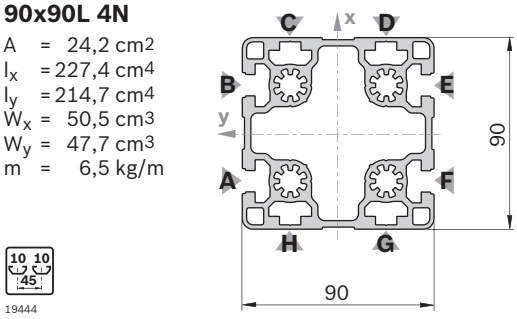
Quick & Easy (p. 2-8; see fold-out section)

90x90L	3 842 993 680/...
Length L (mm)	50 ... 5600
Standard profile finishes (note minimum length, p. 2-24)	M12/D9.8/D17/DB17
Individual profile finishes (L_{max} = 4900 mm)	DI/DIS/MT/MTS/ MI/MIS/DG[1)]

[1)] DG_{max} = 45°; L_{min1}/L_{min2} = 456/612 mm

90x90L 4N

A = 24,2 cm²
I_x = 227,4 cm⁴
I_y = 214,7 cm⁴
W_x = 50,5 cm³
W_y = 47,7 cm³
m = 6,5 kg/m



19444

Cap: see 90x90

90x90L 4N		L (mm)	No.
1 pc		50 ... 6000	**3 842 993 628/L**
6 pcs		6070	**3 842 538 297**

Quick & Easy (p. 2-8; see fold-out section)

90x90L 4N	3 842 993 755/...
Length L (mm)	50 ... 5600
Standard profile finishes (note minimum length, p. 2-24)	M12/D9.8/D17/DB17
Individual profile finishes (L_{max} = 4900 mm)	DI/DIS/MT/MTS/ MI/MIS/DG[1)]

[1)] DG_{max} = 45°; L_{min1}/L_{min2} = 456/612 mm

90x90L 4NVS

A = 24,2 cm²
I_x = 220,9 cm⁴
I_y = 220,9 cm⁴
W_x = 49,2 cm³
W_y = 49,2 cm³
m = 6,5 kg/m



19445

Cap: see 90x90

90x90L 4NVS		L (mm)	No.
1 pc		50 ... 6000	**3 842 993 621/L**
6 pcs		6070	**3 842 538 296**

Quick & Easy (p. 2-8; see fold-out section)

90x90L 4NVS	3 842 993 756/...
Length L (mm)	50 ... 5600
Standard profile finishes (note minimum length, p. 2-24)	M12/D9.8/D17/DB17
Individual profile finishes (L_{max} = 4900 mm)	DI/DIS/MT/MTS/ MI/MIS/DG[1)]

[1)] DG_{max} = 45°; L_{min1}/L_{min2} = 456/612 mm

90x90

A = 38,4 cm²
I_x = 299,8 cm⁴
I_y = 299,8 cm⁴
W_x = 66,7 cm³
W_y = 66,7 cm³
m = 10,4 kg/m



19446

Cap	Color	ESD		No.
90x90 (1x)	Black		20	**3 842 242 400**

Cap with hole	Color	ESD		No.
90x90 (1x)	Black		20	**3 842 514 664**

Note: A quick connector cannot be used.

90x90		L (mm)	No.
1 pc		50 ... 5600	**3 842 990 500/L**
1 pc	M16	120 ... 5600	**3 842 990 501/L**
1 pc	M16 M16	240 ... 5600	**3 842 990 502/L**
1 pc	M16 D17	170 ... 5600	**3 842 992 961/L**
1 pc	M16/D22	60 ... 5600	**3 842 992 373/L**
1 pc	M16/D22 M16/D22	120 ... 5600	**3 842 993 083/L**
1 pc	D17	60 ... 5600	**3 842 990 092/L**
1 pc	D17 D17	80 ... 5600	**3 842 990 093/L**
1 pc	D17 D17V	80 ... 5600	**3 842 990 094/L**
1 pc	LF LF	80 ... 5600	**3 842 993 082/L**
1 pc	F2	60 ... 5600	**3 842 990 505/L**
1 pc	F2 F2	110 ... 5600	**3 842 990 507/L**
6 pcs		5600	**3 842 509 189**

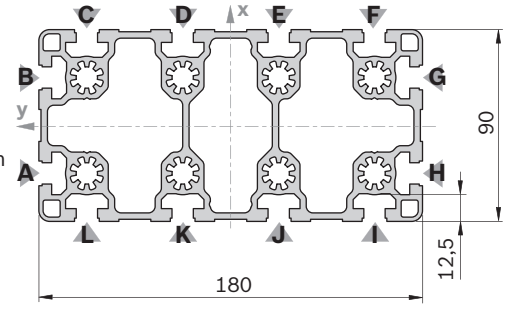
Quick & Easy (p. 2-8; see fold-out section)

90x90	3 842 993 679/...
Length L (mm)	50 ... 5600
Standard profile finishes (note minimum length, p. 2-24)	M16/D9.8/D17/ DB17/F1
Individual profile finishes (L_{max} = 4900 mm)	DI/DIS/MT/MTS/ MI/MIS/DG[1)]

[1)] DG_{max} = 45°; L_{min1}/L_{min2} = 456/612 mm

90x180L

A = 42,8 cm²
I_x = 1380,0 cm⁴
I_y = 401,0 cm⁴
W_x = 153,3 cm³
W_y = 89,1 cm³
m = 11,6 kg/m



19447

Cap	Color	ESD		No.
90x90 (2x)	Black		20	**3 842 516 214**

90x180L		L (mm)	No.
1 pc		50 ... 5600	**3 842 992 857/L**
1 pc	M12	60 ... 5600	**3 842 992 858/L**
1 pc	M12 M12	110 ... 5600	**3 842 992 859/L**
1 pc	M1 LF	90 ... 5600	**3 842 992 860/L**
1 pc	D17V D17V	90 ... 5600	**3 842 992 864/L**
1 pc	LF LF	80 ... 5600	**3 842 992 861/L**
3 pcs		5600	**3 842 516 015**

Profile finishes:
M12: in all core holes
D17V: in slots A/H, B/G
LF: in slots A/H, B/G

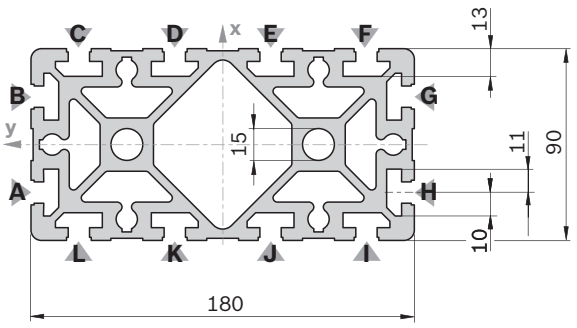
Quick & Easy (p. 2-8; see fold-out section)

90x180L	3 842 993 677/...
Length L (mm)	80 ... 5600
Standard profile finishes (note minimum length, p. 2-24)	M12/D9.8 (C,D,E,F,I, J,K,L)[1]/D17 (C,D,E,F,I,J, K,L)[1]/DB17/F1 (A,G)[1]
Individual profile finishes (L_{max} = 4900 mm)	DI/DIS/MT/MTS/ MI/MIS/DG[2]

[1] For the specified slots
[2] DG_{max} = 30°; L_{min1}/L_{min2} = 404/508 mm

90x180

A = 63,6 cm²
I_x = 2138,3 cm⁴
I_y = 544,3 cm⁴
W_x = 237,6 cm³
W_y = 121,0 cm³
m = 17,2 kg/m



19448

Cap	Color	ESD		No.
90x90 (2x)	Black		20	**3 842 242 400**

90x180		L (mm)	No.
1 pc		50 ... 5600	**3 842 990 416/L**
1 pc	M16	120 ... 5600	**3 842 990 417/L**
1 pc	M16 M16	240 ... 5600	**3 842 990 418/L**
1 pc	M16 F2	170 ... 5600	**3 842 990 419/L**
1 pc	D17V D17V	90 ... 5600	**3 842 992 378/L**
1 pc	LF LF	80 ... 5600	**3 842 992 898/L**
1 pc	LF-S LF-S	80 ... 5600	**3 842 993 081/L**
1 pc	F2 F2	110 ... 5600	**3 842 990 421/L**
3 pcs		5600	**3 842 509 188**

Profile finishes:
M16: in all core holes
D17V: in slots A/H, B/G
LF: in slots A/H, B/G
LF-S: in slots D/K, E/J

Quick & Easy (p. 2-8; see fold-out section)

90x180	3 842 993 676/...
Length L (mm)	80 ... 5600
Standard profile finishes (note minimum length, p. 2-24)	M16/D9.8 (C,D,E,F,I,J, K,L)[1]/D17 (C,D,E,F,I,J, K,L)[1]/DB17/F1 (A,G)[1]
Individual profile finishes (L_{max} = 4900 mm)	DI/DIS/MT/MTS/ MI/MIS/DG[2]

[1] For the specified slots
[2] DG_{max} = 30°; L_{min1}/L_{min2} = 404/508 mm

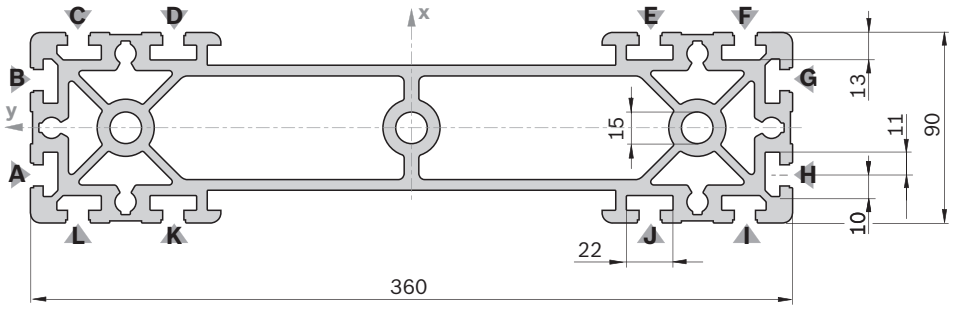
Note: A quick connector cannot be used with profile 90x180.

90x360

A = 90,2 cm²
I_x = 14065,0 cm⁴
I_y = 710,0 cm⁴
W_x = 781,4 cm³
W_y = 157,7 cm³
m = 24,4 kg/m



19449



Cap	Color	ESD		No.
90x180 (2x)	Black		20	**3 842 242 400**

Note: A quick connector cannot be used.

90x360		L (mm)	No.
		50 ... 6000	**3 842 993 434**
	M16 M16	240 ... 6000	**3 842 993 435/L**
	F2 F2	110 ... 6000	**3 842 993 436/L**

Profile finishes: M16: in all core holes

Quick & Easy (p. 2-8; see fold-out section)

90x360	3 842 993 678/...
Length L (mm)	80 ... 6000
Standard profile finishes (note minimum length, p. 2-24)	M16/D9.8 (C,D,E,F,I,J, K,L)[1)]/D17 (C,D,E,F,I,J, K,L)[1)]/DB17/F1 (A,G)[1)]
Individual profile finishes (L_{max} = 5400 mm)	DI/DIS/MT/MTS/MI/MIS

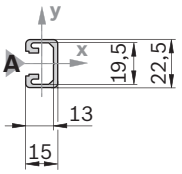
[1)] For the specified slots

15x22,5

A = 1,3 cm²
I_x = 0,8 cm⁴
I_y = 0,3 cm⁴
W_x = 0,9 cm³
W_y = 0,6 cm³
m = 0,3 kg/m



19450



Cap	Color	ESD		No.
15x22.5 (1x)	Black		20	**3 842 537 594**

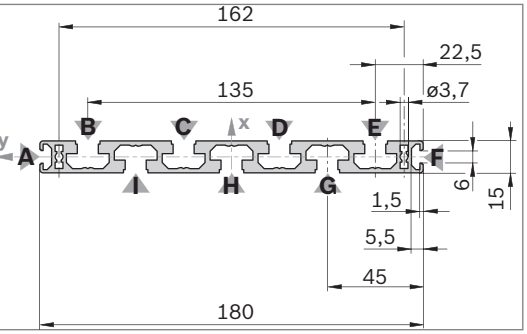
15x22.5		L (mm)	No.
1 pc		50 ... 3000	**3 842 992 473/L**
1 pc	D17	60 ... 3000	**3 842 992 474/L**
1 pc	D17 D17	80 ... 3000	**3 842 992 475/L**
10 pcs		2000	**3 842 513 576**

Quick & Easy (p. 2-8; see fold-out section)

15x22.5	3 842 993 689/...
Length L (mm)	50 ... 2000
Standard profile finishes (note minimum length, p. 2-24)	D9.8/D17
Individual profile finishes	–

15x180

A = 11,6 cm²
I_x = 321,7 cm⁴
I_y = 3,2 cm⁴
W_x = 35,7 cm³
W_y = 4,2 cm³
m = 3,1 kg/m



Cap	Color	ESD		No.
15x180 (1x)	Black		20	**3 842 526 824**

15x180		L (mm)	No.
1 pc		50 ... 5600	**3 842 993 079/L**
6 pcs		5600	**3 842 526 821**

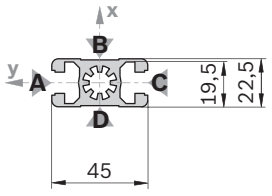
Quick & Easy (p. 2-8; see fold-out section)

15x180	3 842 993 686/...
Length L (mm)	80 ... 5600
Standard profile finishes (note minimum length, p. 2-24)	D9.8 (B,C,D,E,G,H,I)[1]/ D17 (B,C,D,E,G,H,I)[1]
Individual profile finishes (L_{max} = 4900 mm)	DI/DIS/MT/MTS/ MI/MIS

[1] For the specified slots

22,5x45

A = 4,7 cm²
I_x = 7,1 cm⁴
I_y = 2,9 cm⁴
W_x = 3,2 cm³
W_y = 2,6 cm³
m = 1,3 kg/m



Cap	Color	ESD		No.
22.5x45 (1x)	Black		20	**3 842 501 577**

22.5x45		L (mm)	No.
1 pc		50 ... 6000	**3 842 990 292/L**
1 pc	M12	60 ... 6000	**3 842 990 087/L**
1 pc	M12 M12	110 ... 6000	**3 842 990 090/L**
1 pc	D17V D17V	80 ... 6000	**3 842 990 091/L**
24 pcs		6070	**3 842 537 812**

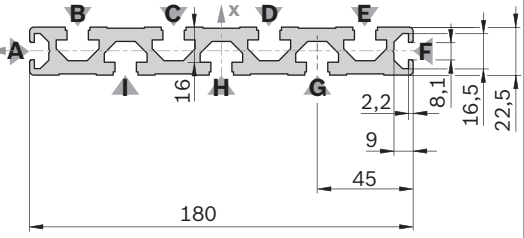
Quick & Easy (p. 2-8; see fold-out section)

22.5x45	3 842 993 700/...
Length L (mm)	50 ... 6000
Standard profile finishes (note minimum length, p. 2-24)	M12/D9.8 (A,C)[1]/ D17/DB17 (A,C)[1]
Individual profile finishes (L_{max} = 5400 mm)	DI/DIS/MT/MTS/MI/MIS/ DG[2]

[1] For the specified slots
[2] DG_{max} = 45°; L_{min1}/L_{min2} = 378/456 mm

22,5x180

A = 21,6 cm²
I_x = 581,0 cm⁴
I_y = 11,8 cm⁴
W_x = 66,8 cm³
W_y = 14,7 cm³
m = 5,8 kg/m



Cap	Color	ESD		No.
22.5x180 (1x)	Black		20	**3 842 503 844**

22.5x180		L (mm)	No.
1 pc		50 ... 5600	**3 842 990 345/L**
1 pc	D28	60 ... 5600	**3 842 990 346/L**
1 pc	D28 D28	110 ... 5600	**3 842 990 347/L**
6 pcs		5600	**3 842 509 179**

Profile finishes: D28: in slots G, I

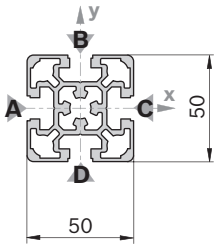
Quick & Easy (p. 2-8; see fold-out section)

22.5x180	3 842 993 699/...
Length L (mm)	80 ... 5600
Standard profile finishes (note minimum length, p. 2-24)	D9.8 (B,C,D,E,G,H,I)[1]/ D17 (B,C,D,E,G,H,I)[1]
Individual profile finishes (L_{max} = 4900 mm)	DI/DIS/MT/MTS/ MI/MIS

[1] For the specified slots

50x50L

A = 9,3 cm²
I_x = 21,2 cm⁴
I_y = 21,2 cm⁴
W_x = 8,5 cm³
W_y = 8,5 cm³
m = 2,5 kg/m





19454

Cap	Color	ESD		No.
50x50 (1x)	Black		20	**3 842 528 969**

Cap with hole	Color	ESD		No.
50x50 (1x)	Black		20	**3 842 529 047**

50x50L		L (mm)	No.
1 pc		50 ... 6000	**3 842 993 156/L**
1 pc	M12	60 ... 6000	**3 842 993 157/L**
1 pc	M12 M12	110 ... 6000	**3 842 993 158/L**
1 pc	M12 D17	90 ... 6000	**3 842 993 159/L**
1 pc	D9,8 D9,8	80 ... 6000	**3 842 993 164/L**
1 pc	D17	60 ... 6000	**3 842 993 160/L**
1 pc	D17 D17	80 ... 6000	**3 842 993 161/L**
1 pc	D17 D17V	80 ... 6000	**3 842 993 162/L**
20 pcs		6070	**3 842 529 351**

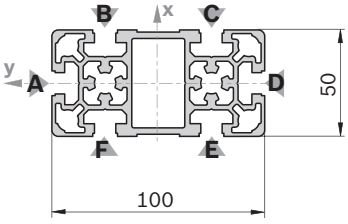
Quick & Easy (p. 2-8; see fold-out section)

50x50L	3 842 993 665/...
Length L (mm)	50 ... 6000
Standard profile finishes (note minimum length, p. 2-24)	M12/M16/D9.8/D17/ DB17
Individual profile finishes (L_{max} = 5400 mm)	DI/DIS/MT/MTS/ MI/MIS/DG[1]

[1] DG_{max} = 45°; L_{min1}/L_{min2} = 387/474 mm

50x100L

A = 17,2 cm²
I_x = 162,8 cm⁴
I_y = 42,6 cm⁴
W_x = 32,6 cm³
W_y = 17,0 cm³
m = 4,6 kg/m





19455

Cap	Color	ESD		No.
50x50 (2x)	Black		20	**3 842 528 969**

Cap with hole	Color	ESD		No.
50x50 (2x)	Black		20	**3 842 529 047**

50x100L		L (mm)	No.
1 pc		50 ... 6000	**3 842 993 163/L**
1 pc	M12	60 ... 6000	**3 842 993 165/L**
1 pc	M12 M12	110 ... 6000	**3 842 993 166/L**
1 pc	D17 D17	90 ... 6000	**3 842 993 167/L**
1 pc	D17 D17V	80 ... 6000	**3 842 993 168/L**
1 pc	D17V	60 ... 6000	**3 842 993 169/L**
1 pc	D17V D17V	90 ... 6000	**3 842 993 170/L**
10 pcs		6070	**3 842 537 825**

Profile finishes: M12: in all core holes
D17: in slots B/F, C/E
D17V: in slot A/D

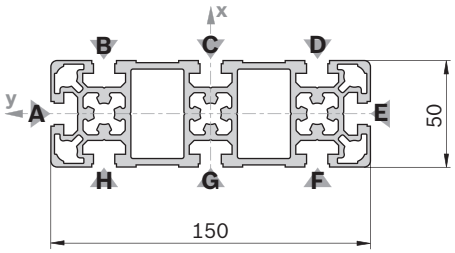
Quick & Easy (p. 2-8; see fold-out section)

50x100L	3 842 993 663/...
Length L (mm)	50 ... 6000
Standard profile finishes (note minimum length, p. 2-24)	M12/M16/D9.8/ D17/DB17/F1(A, D)[1]
Individual profile finishes (L_{max} = 5400 mm)	DI/DIS/MT/MTS/ MI/MIS/DG[2]

[1] For the specified slots
[2] DG_{max} = 45°; L_{min1}/L_{min2} = 474/648 mm

50x150L

A = 25,8 cm²
I_x = 540,0 cm⁴
I_y = 64,2 cm⁴
W_x = 72,0 cm³
W_y = 25,7 cm³
m = 6,9 kg/m



19456

Cap	Color	ESD		No.
50x150 (1x)	Black		20	**3 842 529 052**

50x150L		L (mm)	No.
1 pc		50 ... 6000	**3 842 993 196/L**
1 pc	M12	60 ... 6000	**3 842 993 194/L**
1 pc	M12 M12	110 ... 6000	**3 842 993 199/L**
1 pc	D17 D17	80 ... 6000	**3 842 993 200/L**
1 pc	D17V D17V	90 ... 6000	**3 842 993 228/L**
4 pcs		6070	**3 842 537 826**

Profile finishes:
M12: in all core holes
D17: in slots B/H, C/G, D/F
D17V: in slots A/E

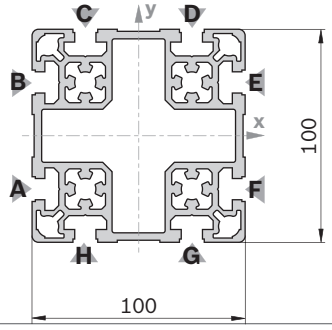
Quick & Easy (p. 2-8; see fold-out section)

50x150L	3 842 993 664/...
Length L (mm)	80 ... 6000
Standard profile finishes (note minimum length, p. 2-24)	M12/M16/ D9.8 (B,C,D,F,G,H)[1]/ D17 (B,C,D,F,G,H)[1]/ DB17/F1 (A,E)[1]
Individual profile finishes (L_{max} = 5400 mm)	DI/DIS/MT/MTS/ MI/MIS/DG[2]

[1] For the specified slots
[2] DG_{max} = 45°; L_{min1}/L_{min2} = 450/600 mm

100x100L

A = 29,9 cm²
I_x = 318,3 cm⁴
I_y = 318,3 cm⁴
W_x = 63,7 cm³
W_y = 63,7 cm³
m = 8,1 kg/m



19457

Cap	Color	ESD		No.
100x100 (1x)	Black		20	**3 842 529 042**

100x100L		L (mm)	No.
1 pc		50 ... 6000	**3 842 993 171/L**
1 pc	M12	60 ... 6000	**3 842 993 172/L**
1 pc	M12 M12	110 ... 6000	**3 842 993 173/L**
1 pc	M12 D17	90 ... 6000	**3 842 993 174/L**
1 pc	D17	60 ... 6000	**3 842 993 175/L**
1 pc	D17 D17	80 ... 6000	**3 842 993 176/L**
1 pc	D17 D17V	80 ... 6000	**3 842 993 177/L**
6 pcs		6070	**3 842 529 355**

Profile finishes:
M12: in all core holes
D17: in slots C/H, D/G
D17V: in slots A/F, B/E

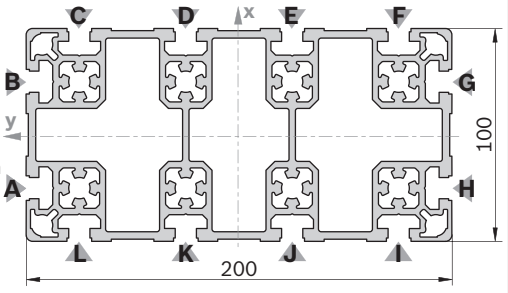
Quick & Easy (p. 2-8; see fold-out section)

100x100L	3 842 993 685/...
Length L (mm)	50 ... 6000
Standard profile finishes (note minimum length, p. 2-24)	M12/M16/D9.8/ D17/DB17/F1
Individual profile finishes (L_{max} = 5400 mm)	DI/DIS/MT/MTS/ MI/MIS/DG[1]

[1] DG_{max} = 45°; L_{min1}/L_{min2} = 474/648 mm

100x200L

A = 54,0 cm²
I_x = 2133,1 cm⁴
I_y = 602,1 cm⁴
W_x = 213,3 cm³
W_y = 120,4 cm³
m = 14,6 kg/m



10 10 50

19458

Cap	Color	ESD		No.
100x100 (2x)	Black		20	**3 842 529 042**

100x200L		L (mm)	No.
	1 pc	50 ... 6000	**3 842 993 178/L**
	1 pc M12	60 ... 6000	**3 842 993 179/L**
	1 pc M12 M12	110 ... 6000	**3 842 993 180/L**
	1 pc M12 D17	90 ... 6000	**3 842 993 181/L**
	1 pc D17	60 ... 6000	**3 842 993 182/L**
	1 pc D17 D17	80 ... 6000	**3 842 993 183/L**
	1 pc D17V D17V	90 ... 6000	**3 842 993 227/L**
	3 pcs	6070	**3 842 529 357**

Profile finishes: M12: in all core holes
D17: in slots C/L, D/K, E/J, F/I
D17V: in slots A/H, B/G

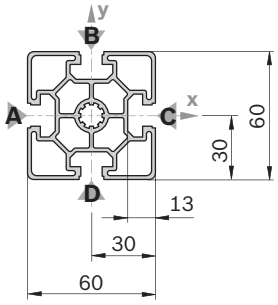
Quick & Easy (p. 2-8; see fold-out section)

100x200L	3 842 993 687/...
Length L (mm)	50 ... 6000
Standard profile finishes (note minimum length, p. 2-24)	M12/M16/ D9.8 (C,D,E,F,I,J,K,L)[1]/ D17 (C,D,E,F,I,J,K,L)[1]/ DB17/F1 (A,G)[1]
Individual profile finishes (L_{max} = 5400 mm)	DI/DIS/MT/MTS/ MI/MIS/DG[2]

[1] For the specified slots
[2] DG_{max} = 30°; L_{min} = 416/532 mm

60x60L

A = 9,6 cm²
I_x = 32,4 cm⁴
I_y = 32,4 cm⁴
W_x = 10,8 cm³
W_y = 10,8 cm³
m = 2,6 kg/m



10 10 60

19459

Cap	Color	ESD		No.
60x60 (1x)	Black		100	**3 842 511 874**

Cap with hole	Color	ESD		No.
60x60 (1x)	Black		20	**3 842 511 876**

60x60L		L (mm)	No.
	1 pc	50 ... 5600	**3 842 992 443/L**
	1 pc M12	60 ... 5600	**3 842 992 444/L**
	1 pc M12 M12	110 ... 5600	**3 842 992 445/L**
	1 pc M12 D17	90 ... 5600	**3 842 992 446/L**
	1 pc D17	60 ... 5600	**3 842 992 449/L**
	1 pc D17 D17	80 ... 5600	**3 842 992 447/L**
	1 pc D17 D17V	80 ... 5600	**3 842 992 448/L**
	20 pcs	5600	**3 842 511 872**

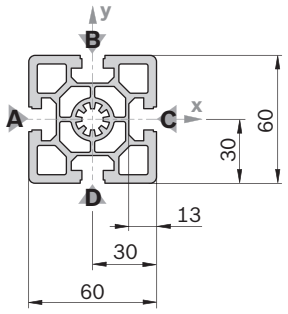
Quick & Easy (p. 2-8; see fold-out section)

60x60L	3 842 993 670/...
Length L (mm)	50 ... 5600
Standard profile finishes (note minimum length, p. 2-24)	M12/D9.8/D17/DB17
Individual profile finishes (L_{max} = 4900 mm)	DI/DIS/MT/MTS/ MI/MIS/DG[1]

[1] DG_{max} = 45°; L_{min} = 404/508 mm

60x60

A = 14,4 cm²
I_x = 52,2 cm⁴
I_y = 52,2 cm⁴
W_x = 17,4 cm³
W_y = 17,4 cm³
m = 3,9 kg/m



19460

Cap	Color	ESD		No.
60x60 (1x)	Black		100	**3 842 511 874**

Cap with hole	Color	ESD		No.
60x60 (1x)	Black		20	**3 842 511 876**

60x60		L (mm)	No.
1 pc		50 ... 5600	**3 842 990 350/L**
1 pc	M12	60 ... 5600	**3 842 990 351/L**
1 pc	M12 M12	110 ... 5600	**3 842 990 353/L**
1 pc	M12 M16	180 ... 5600	**3 842 990 354/L**
1 pc	M12 D17	90 ... 5600	**3 842 990 355/L**
1 pc	M16	120 ... 5600	**3 842 990 352/L**
1 pc	M16 D17	170 ... 5600	**3 842 990 373/L**
1 pc	D17	50 ... 5600	**3 842 990 370/L**
1 pc	D17 D17	80 ... 5600	**3 842 990 357/L**
1 pc	D17 D17V	80 ... 5600	**3 842 990 359/L**
20 pcs		5600	**3 842 509 185**

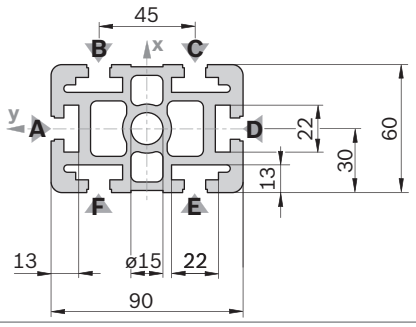
Quick & Easy (p. 2-8; see fold-out section)

60x60	3 842 993 668/...
Length L (mm)	50 ... 5600
Standard profile finishes (note minimum length, p. 2-24)	M12/M16/D9.8/ D17/DB17
Individual profile finishes (L_{max} = 4900 mm)	DI/DIS/MT/MTS/ MI/MIS/DG[1]

[1] DG_{max} = 45°; L_{min} = 404/508 mm

60x90

A = 25,8 cm²
I_x = 214,2 cm⁴
I_y = 90,5 cm⁴
W_x = 47,6 cm³
W_y = 30,2 cm³
m = 7,0 kg/m



19461

Cap	Color	ESD		No.
60x90 (1x)	Black		20	**3 842 510 293**

Cap with hole	Color	ESD		No.
60x90 (1x)	Black		20	**3 842 514 663**

Note: A quick connector cannot be used.

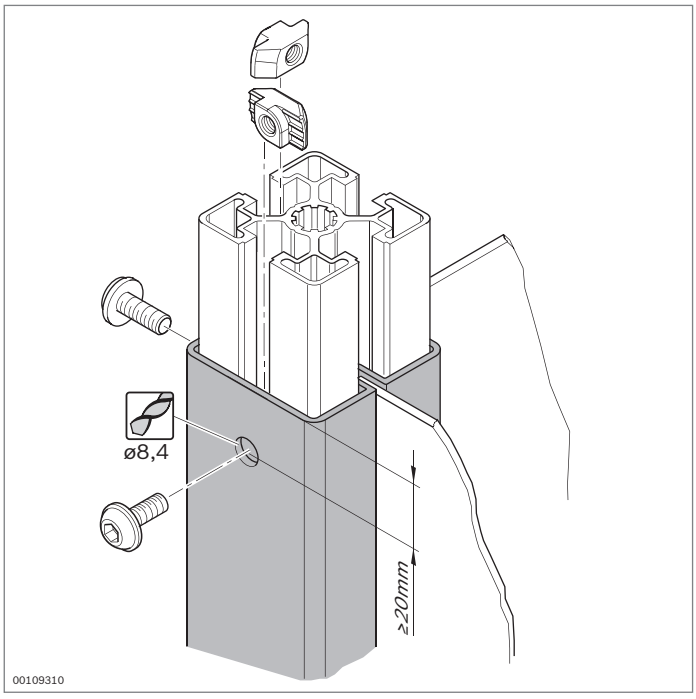
60x90		L (mm)	No.
1 pc		50 ... 5600	**3 842 990 450/...**
1 pc	M16	120 ... 5600	**3 842 990 453/...**
1 pc	M16 M16	240 ... 5600	**3 842 990 454/...**
1 pc	M16 D17	170 ... 5600	**3 842 992 962/...**
1 pc	M16 D17V	170 ... 5600	**3 842 992 963/...**
1 pc	M16 F2	170 ... 5600	**3 842 990 472/...**
1 pc	D17 D17	80 ... 5600	**3 842 990 097/...**
1 pc	D17 D17V	80 ... 5600	**3 842 990 099/...**
1 pc	D17V D17V	90 ... 5600	**3 842 990 098/...**
1 pc	F1 F1	110 ... 5600	**3 842 990 464/...**
1 pc	F1 F1V	110 ... 5600	**3 842 990 481/...**
1 pc	F2 F2	110 ... 5600	**3 842 990 478/...**
10 pcs		5600	**3 842 509 183**

Profile finishes: D17: in slots B/F, C/E
D17V: in slots A/D

Quick & Easy (p. 2-8; see fold-out section)

60x90	3 842 993 671/...
Length L (mm)	50 ... 5600
Standard profile finishes (note minimum length, p. 2-24)	M16/D9.8/ D17/DB17/F1 (A, D)[1]
Individual profile finishes (L_{max} = 4900 mm)	DI/DIS/MT/MTS/ MI/MIS/DG[1]

[1] For the specified slots
[1] DG_{max} = 45°; L_{min} = 456/612 mm

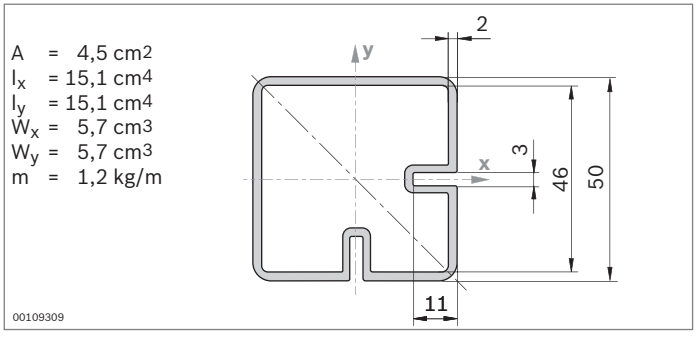


Rectangular tube

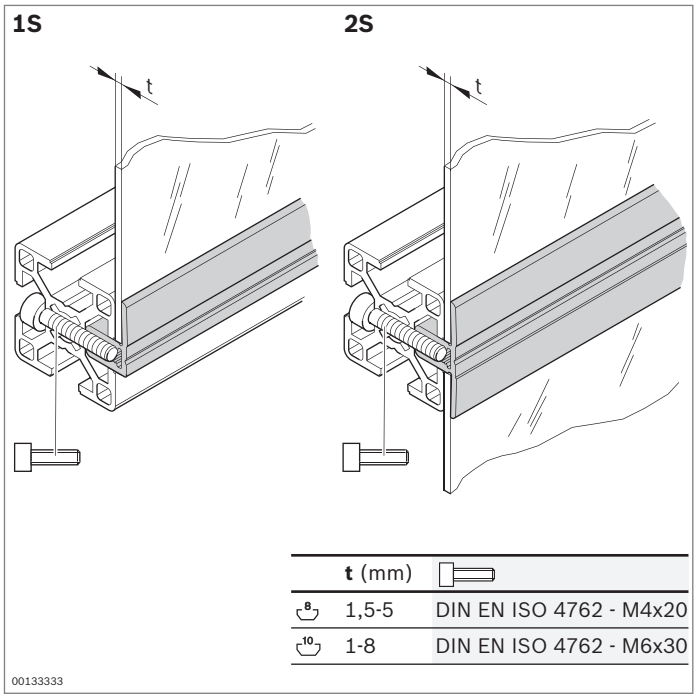


- For constructing manually height-adjustable frames
- Cutouts for holding surface elements
- Profile finishing: hole for screw

Required accessories:
Fastening material



Rectangular tube		L (mm)	No.
1 pc		50 ... 5600	**3 842 992 913/L**
6 pcs		5600	**3 842 537 817**



	t (mm)	
8	1,5-5	DIN EN ISO 4762 - M4x20
10	1-8	DIN EN ISO 4762 - M6x30

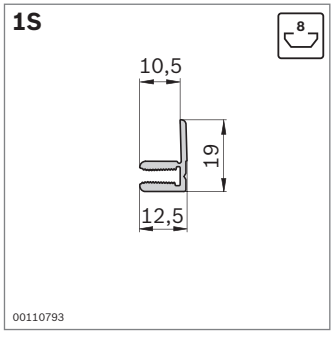
Clamping profile

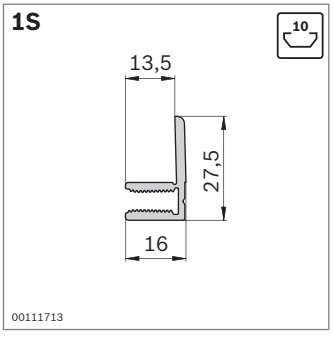


- For simple fastening of panes, surface elements, or grilles on strut profiles
- For subsequent installation in closed frame constructions
- For surface elements with varying thicknesses
- Profile finishing: through hole for mounting screw

Required accessories:

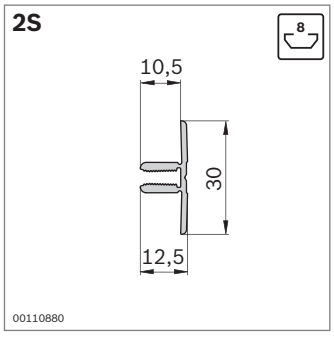
- Cylinder head screw DIN EN ISO 4762 – M4x20 (8 mm slot)
- Cylinder head screw DIN EN ISO 4762 – M6x30 (10 mm slot)

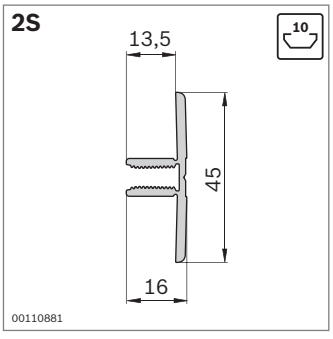




Clamping profile 1S		**Slot**	**L** (mm)	**No.**
1 pc		8	50 ... 3000	**3 842 993 017/L**
10 pcs		8	3000	**3 842 524 058**
1 pc		10	50 ... 3000	**3 842 993 019/L**
10 pcs		10	3000	**3 842 524 064**

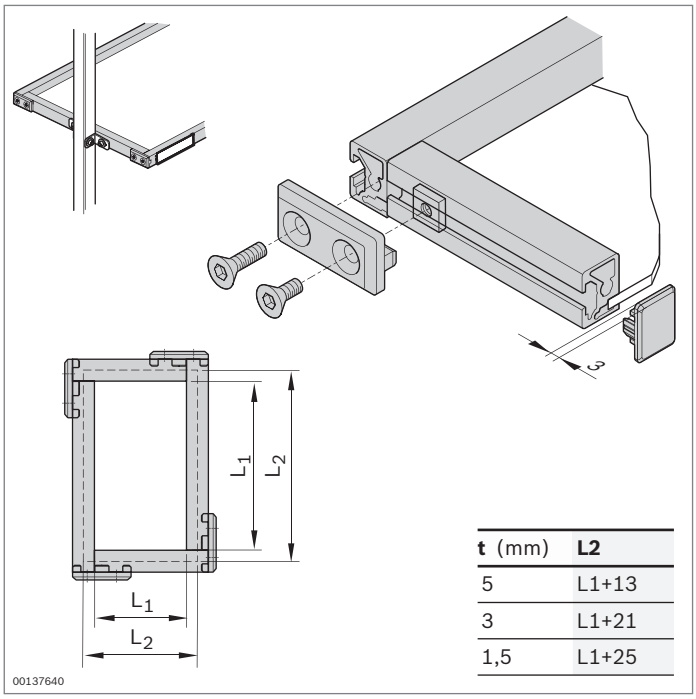
Material: Aluminum, anodized





Clamping profile 2S		**Slot**	**L** (mm)	**No.**
1 pc		8	50 ... 3000	**3 842 993 018/L**
10 pcs		8	3000	**3 842 524 061**
1 pc		10	50 ... 3000	**3 842 993 020/L**
10 pcs		10	3000	**3 842 524 067**

Material: Aluminum, anodized

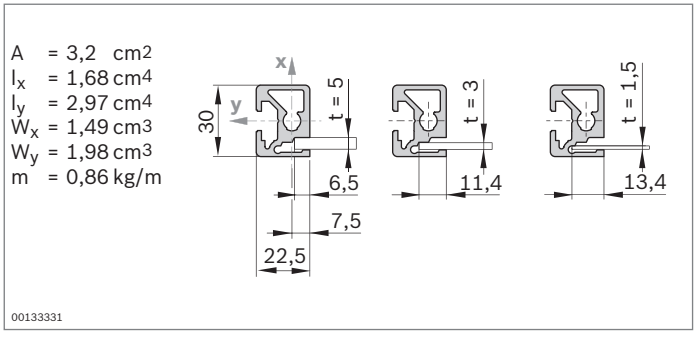


t (mm)	L2
5	L1+13
3	L1+21
1,5	L1+25

Frame profile 22.5x30

- For inexpensive construction of tablets and material shelves
- Surface elements are mounted under tension so that they do not rattle

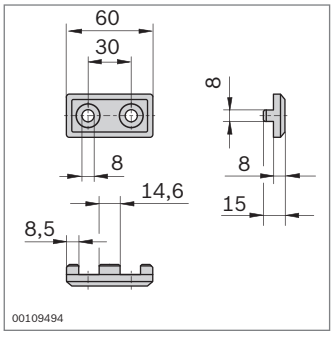
Optional accessories:
- Bracket set M6 (p. 3-28)
- Swivel fastening (p. 4-9)
- Lettering clip for 8 mm slot (p. 2-79)
- Plate (p. 2-59)



Frame profile 22.5x30		Slot	L (mm)	No.
1 pc		8	50 ... 5600	**3 842 992 493/L**
20 pcs		8	5600	**3 842 515 229**

Material: Aluminum, anodized

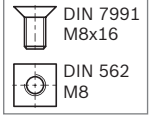
Cap	Color	ESD		No.
22.5x30	Black		20	**3 842 516 720**



FS1



FS2

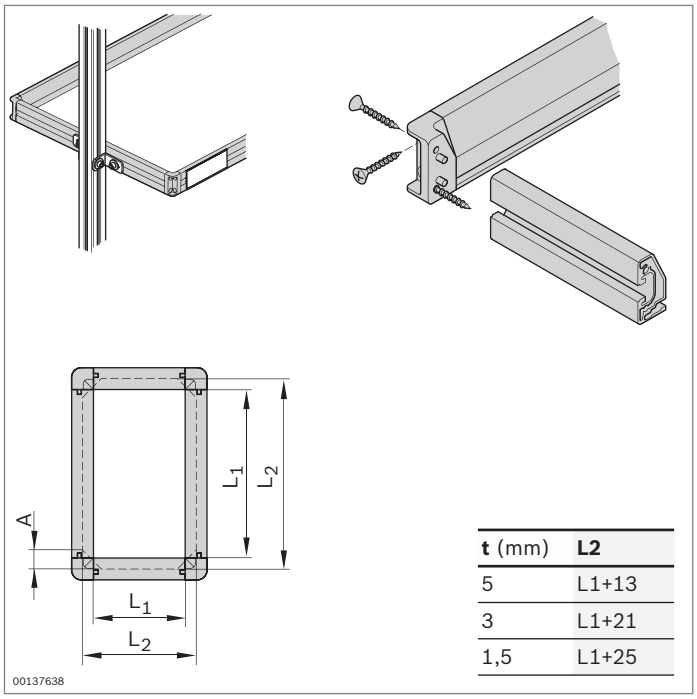


Corner piece for frame profile 22.5x30

- For perpendicular connections between two frame profiles 22.5x30
- Profile finishing: not required

Corner piece	ESD		No.	FS
		20	**3 842 535 661**	FS1, FS2

Material: PA, black
Scope of delivery: Incl. fastening material (FS)



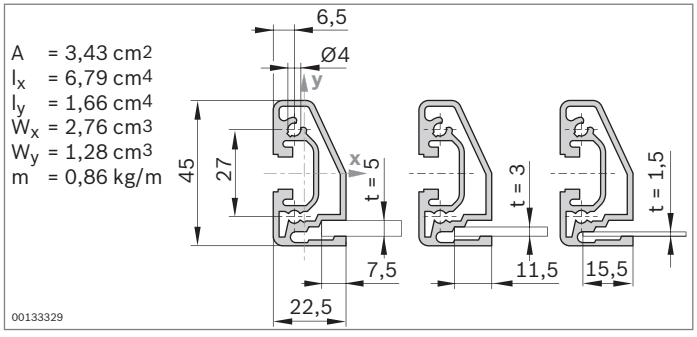
t (mm)	**L2**
5	L1+13
3	L1+21
1,5	L1+25

Frame profile 22.5x45



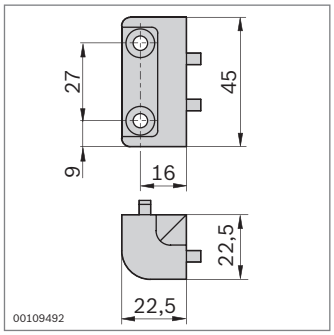
- For inexpensive construction of tablets and material shelves
- Surface elements are mounted under tension so that they do not rattle

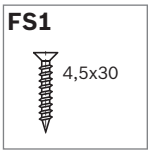
Optional accessories:
- Bracket set (p. 3-30)
- Swivel fastening (p. 4-9)
- Lettering clip for 10 mm slot (p. 2-79)
- Plate (p. 2-59)



Frame profile 22.5x45	**Slot**	**L** (mm)	**No.**
1 pc	10	50 ... 5600	**3 842 992 411/L**
20 pcs	10	5600	**3 842 508 102**

Material: Aluminum, anodized



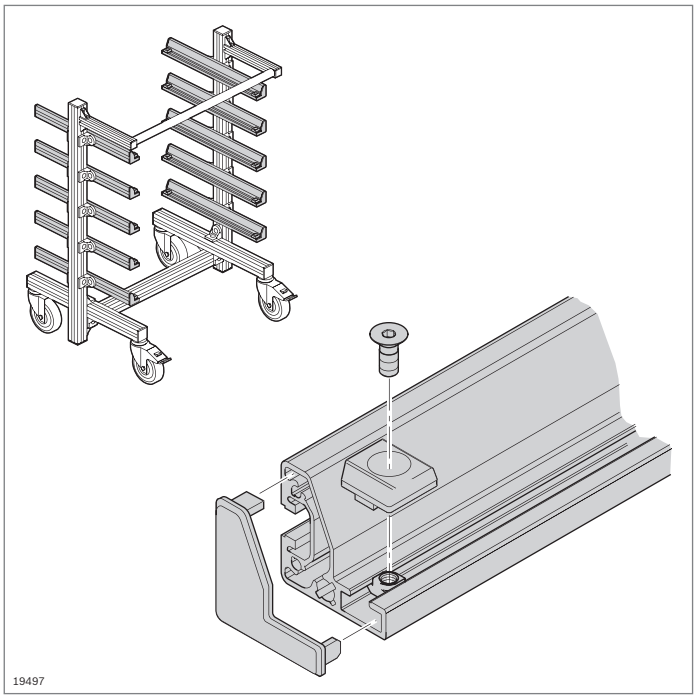


Corner piece for frame profile 22.5x45

- For perpendicular connections of two frame profiles 22.5x45
- Profile finishing: not required

Corner bracket	**ESD**		**No.**	**FS**
		20	**3 842 535 637**	4xFS1

Material: Diecast zinc
Scope of delivery: Incl. fastening material (FS)

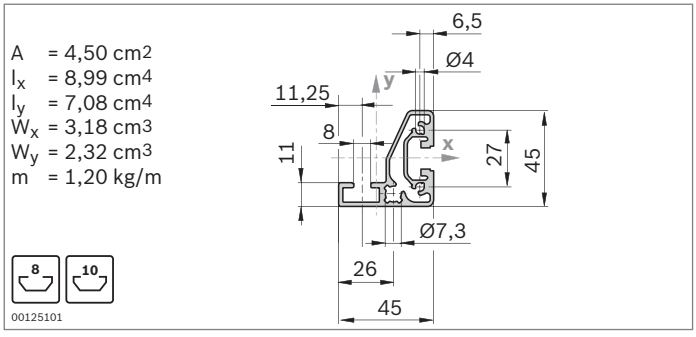


Angle profile



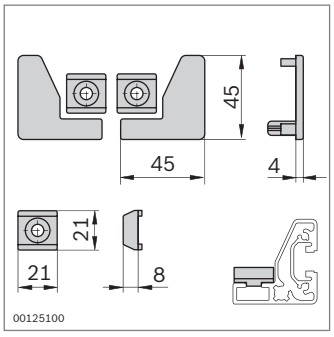
- For supporting containers, plates, or workpiece pallets in flow racks, material shuttles, or hopper stackers

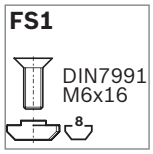
Accessories:
Bracket R40x43 (p. 3-29)



Angle profile		L (mm)	No.
1 pc		50 ... 5600	**3 842 992 412/L**
20 pcs		5600	**3 842 508 104**

Material: Aluminum, anodized





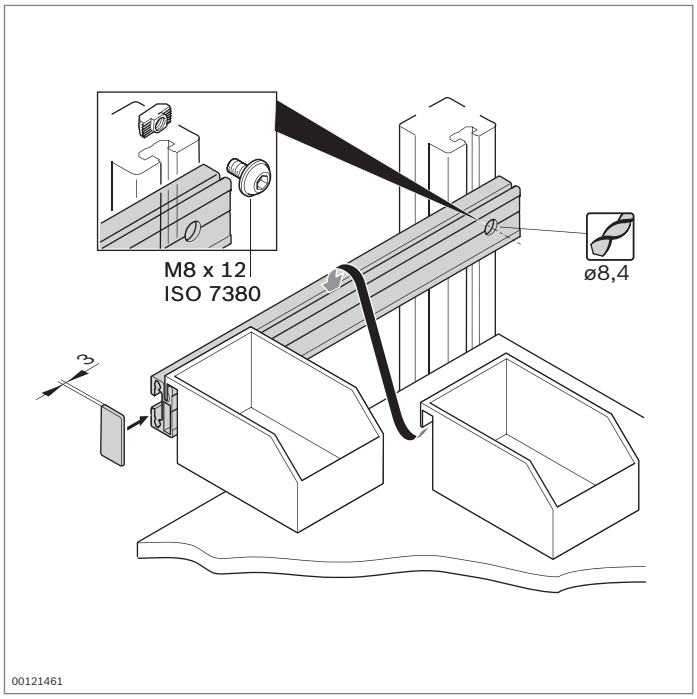
Stopper and cap

- Stoppers prevent containers from sliding on the angle profile
- Cap to prevent injuries at open profile ends
- Attractive design

Stopper, cap		No.	FS
	20	**3 842 508 116**	2xFS1

Material: PA, black
Fastening material: steel, galvanized

Scope of delivery: Incl. fastening material (FS)

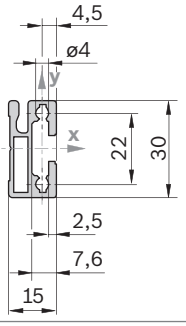


Suspension profile

- For the fast, secure suspension of grab containers, grab ledges, grab trays, and tool holders
- Profile finishing:
  Through hole for screwdriver
- Matching grab containers in the Manual Production Systems catalog (**3 842 538 280**)

Required accessories:
- Screw
- T-nut (p. 3-4)

A = 2,03 cm²
I_x = 2,06 cm⁴
I_y = 0,48 cm⁴
W_x = 2,68 cm³
W_y = 0,32 cm³
m = 0,55 kg/m

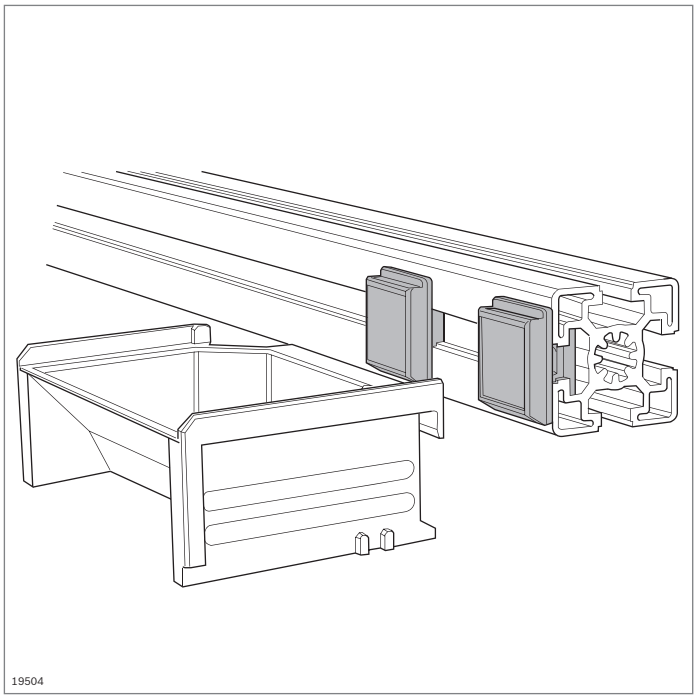


00109298

Cap	Color	ESD		No.
15x30	Black		20	**3 842 338 990**

Suspension profile	L (mm)	ESD	No.
1 pc	50 ... 3000		**3 842 993 411/L**
10 pcs	3000		**3 842 537 679**
1 pc	50 ... 3000		**3 842 993 359/L**
10 pcs	3000		**3 842 537 681**

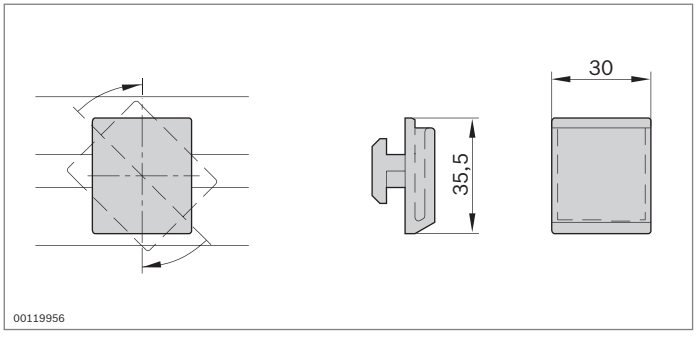
Material: Suspension profile: aluminum, anodized
Suspension profile ESD: aluminum, transparent chromatized



Container mount

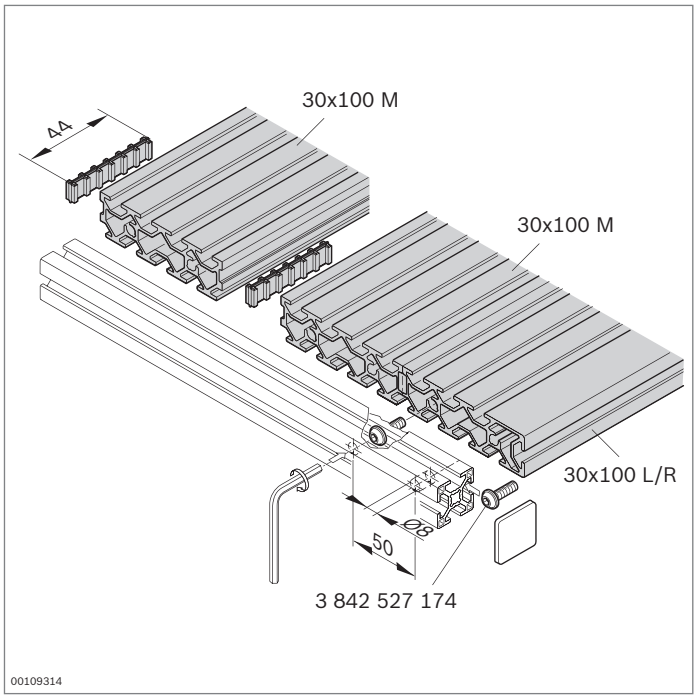


- For the suspension of grab trays, grab containers and grab ledges
- Integrated sliding block for installation in a 10 mm slot
- Matching grab containers in the Manual Production Systems catalog (**3 842 538 280**)



Container mount		No.
	10	**3 842 530 304**

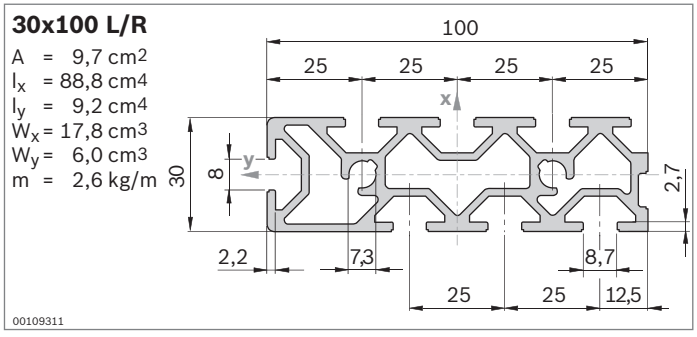
Material: PA6



Slotted plate 30x100

- Modular plate profiles with multiple slots for experimental constructions of any size
- Slot spacing 25 mm
- Slot size 8.9 mm
- 8 mm slot connectors may be used

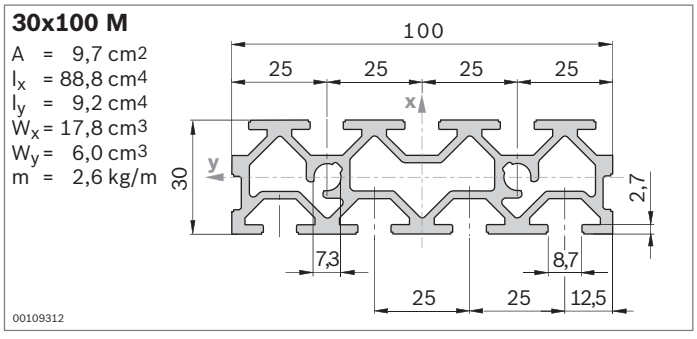
Optional accessories:
- Profile 30x30 (p. 2-16)
- Sliding block



- Slotted plate **30x100 L/R** with lateral 8 mm slot as outer stop

Slotted plate 30x100 L/R	Slot	L (mm)	No.
1 pc	8	100 ... 5600	**3 842 993 337/L**
18 pcs	8	5600	**3 842 542 696**

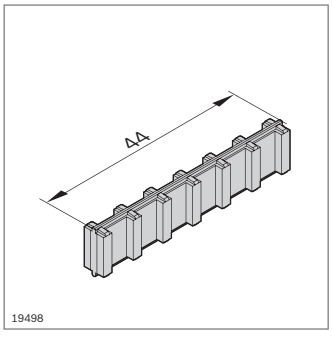
Material: Aluminum, anodized



- Slotted plate **30x100 M** for constructing slotted plates of any width

Slotted plate 30x100 M	Slot	L (mm)	No.
1 pc	8	100 ... 5600	**3 842 993 336/L**
18 pcs	8	5600	**3 842 542 698**

Material: Aluminum, anodized

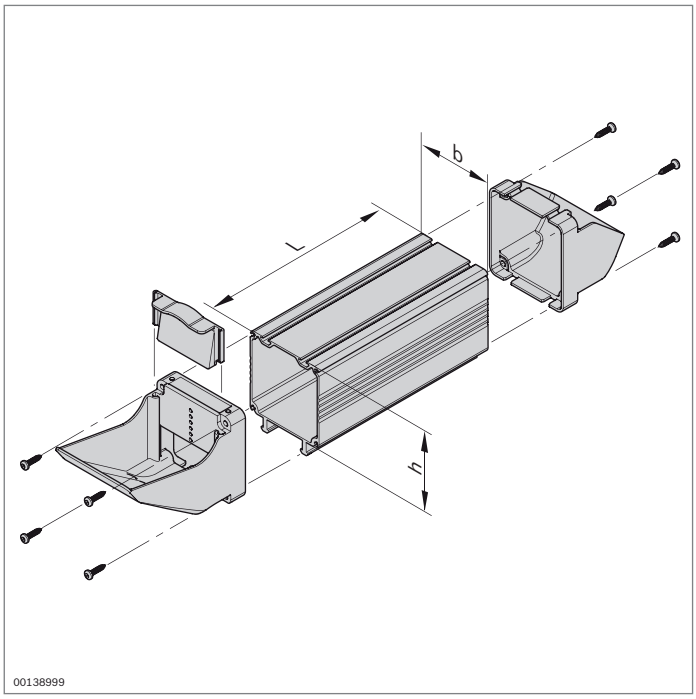


Sliding block

- For connecting slotted plates 30x100
- Recommendation: use 3 sliding blocks per meter of profile length

Sliding block		No.
	100	**3 842 520 922**

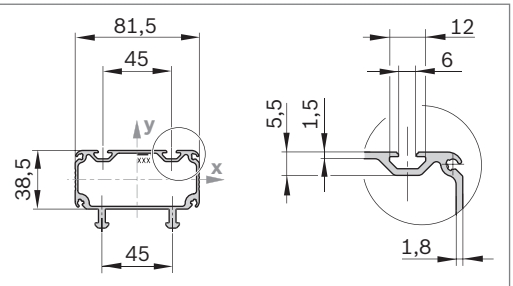
Material: PA



Material chute
Refill end-piece, grab ledge, grab container base

- Small parts within easy reach on the workstation
- Components for the individual construction of stable Vario grab containers
- Customizable holding capacity

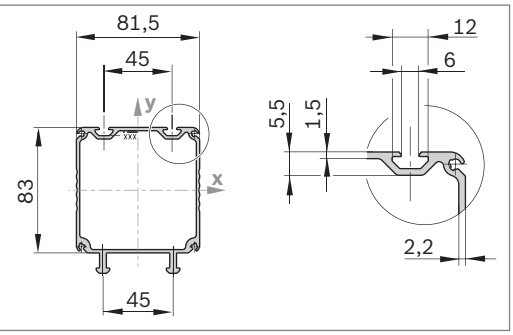
90x45
A = 6,97 cm2
I_x = 20,7 cm4
I_y = 54,3 cm4
m = 1,83 kg/m



Material chute 90x45		L (mm)	No.
1 pc		50 ... 3000	**3 842 993 071/L**
3 pcs		3000	**3 842 526 671**

Material: Aluminum, anodized

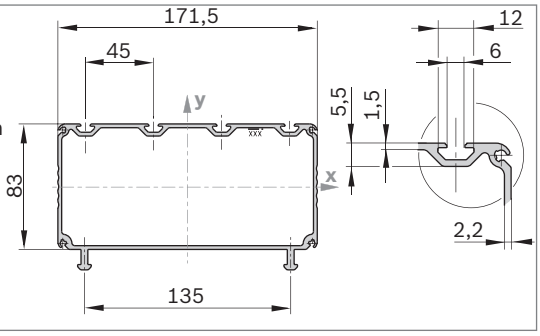
90x90
A = 9,63 cm2
I_x = 118,8 cm4
I_y = 88,1 cm4
m = 2,51 kg/m



Material chute 90x90		L (mm)	No.
1 pc		50 ... 3000	**3 842 993 072/L**
3 pcs		3000	**3 842 526 672**

Material: Aluminum, anodized

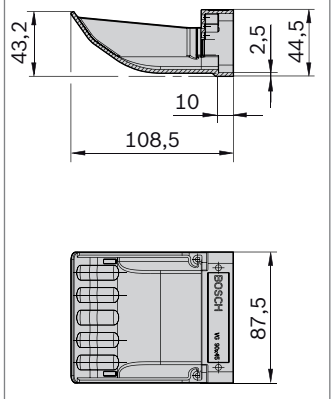
180x90
A = 15,52 cm2
I_x = 208,2 cm4
I_y = 597,5 cm4
m = 4,15 kg/m



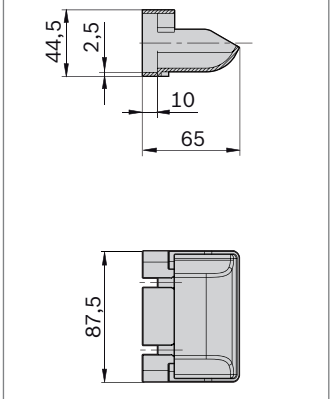
Material chute 180x90		L (mm)	No.
1 pc		50 ... 3000	**3 842 993 073/L**
3 pcs		3000	**3 842 526 673**

Material: Aluminum, anodized

90x45



90x45



- Refill end-piece with large opening for easy filling
- Ergonomically designed grab ledge for easy, safe grabbing
- Grab container pusher for closing

Grab ledge and refill end-piece	No.	FS
90 x 45	**3 842 526 626**	8xFS1, FS2

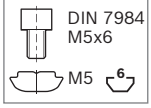
Material: Plastic ABS, light gray RAL 7035
Fastening material: steel, galvanized

Scope of delivery: Incl. fastening material (FS)

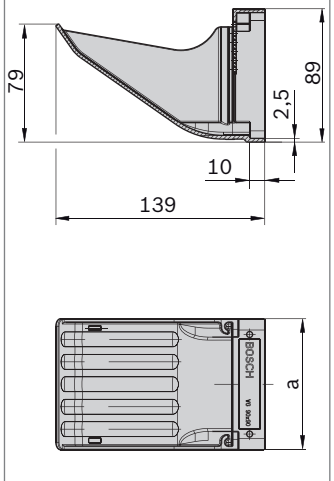
FS1



FS2

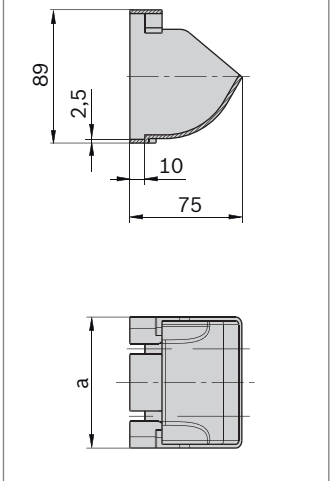


90x90
180x90



	90x90	180x90
a	87,5	172,5

90x90
180x90



	90x90	180x90
a	87,5	172,5

Grab ledge and refill end-piece	No.	FS
90 x 90	**3 842 526 627**	8xFS1, FS2
180 x 90	**3 842 526 628**	8xFS1, FS2

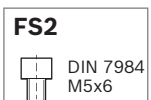
Material: Plastic ABS, light gray RAL 7035
Fastening material: steel, galvanized

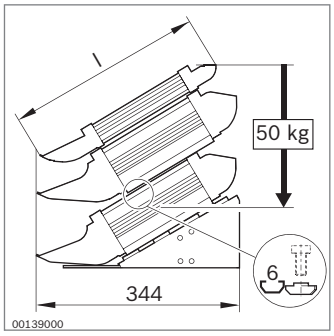
Scope of delivery: Incl. fastening material (FS)

FS1



FS2

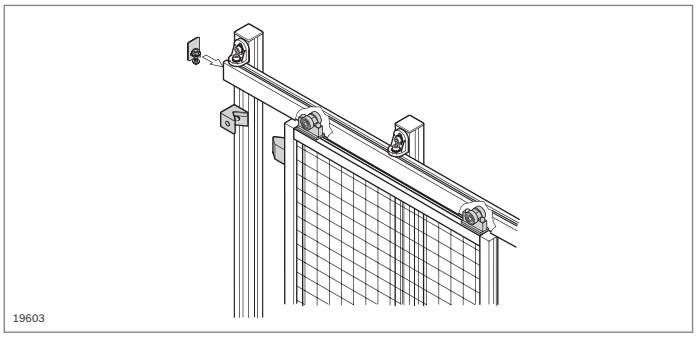




- Grab container base for an ergonomically optimized arrangement of grab containers

Grab container base	w x h x l (mm)	No.
SG 90	90 x 149 x 315	**3 842 526 660**
SG 180	180 x 149 x 315	**3 842 526 665**

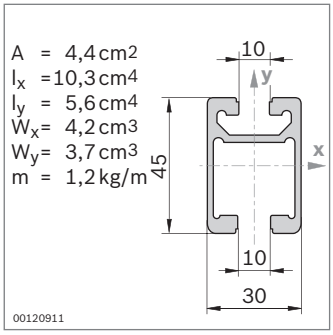
Material: Sheet steel, light gray powder coating (RAL 7035)



Profile rail, trolley

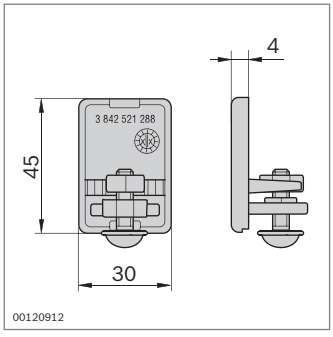
- Profile rail and trolley for movable parts suspension; for use, e.g. as a tool hange at work tables or for EcoSafe sliding doors (p. 10-12)

Accessories:
See page 12-4



Profile rail 30x45C	L (mm)	No.
1 pc	50 ... 5600	**3 842 992 946/L**
20 pcs	5600	**3 842 523 598**

Material: Aluminum, anodized



FS1

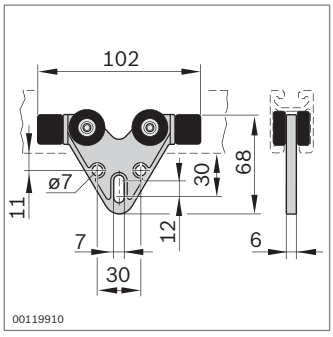
M8

End piece

- With screw protection
- As stop for trolley

End piece 30x45C		No.	FS
	20	**3 842 521 513**	FS1

Material: Aluminum, anodized
Scope of delivery: Incl. fastening material (FS)

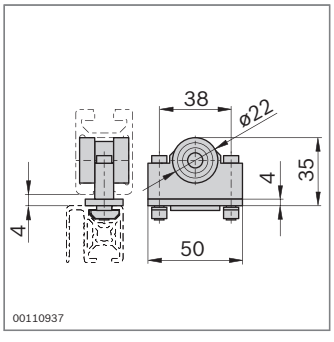


Trolley

- Trolley with ring, e.g. for hanging a spring hook

Trolley for profile rail 30x45C	No.
	3 842 521 510

Material: Injection molded plastic



FS2

DIN 4762
M5x30

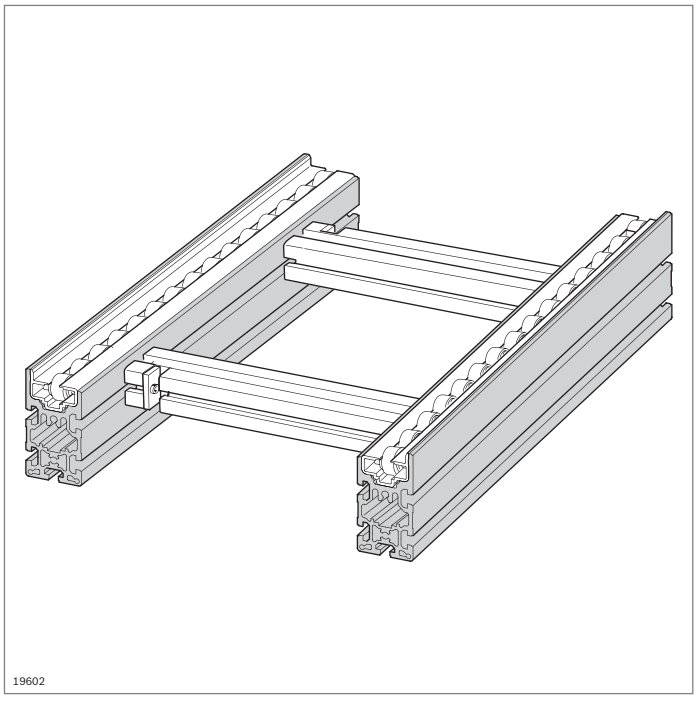
A 6,4

Trolley

- Trolley with dust-proof ball bearings for smooth movement
- For fastening profiles with a 8 mm slot

Trolley	No.	FS
	3 842 524 153	FS2

Material: PA, black
Scope of delivery: Incl. fastening material (FS)



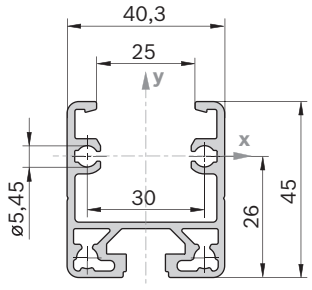
Profiles for installing conveyor media



- Profiles that are normally used to construct the transfer systems TS 2*plus* and TS 4, as well as Lean conveyor tracks, are also suitable for the construction of manual conveyor sections. Detailed information is available in chapter 12 “Elements for manual movement” and in the respective special catalogs

U-profile

A = 4,4 cm²
I_x = 10,3 cm⁴
I_y = 8,3 cm⁴
W_x = 4,6 cm³
W_y = 4,1 cm³
m = 1,2 kg/m

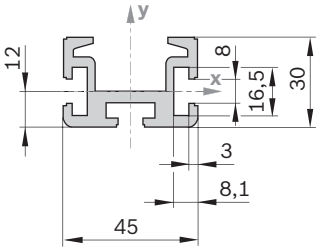


U-profile		Slot	L (mm)	ESD	No.
1 pc		10	50 ... 6000		**3 842 993 316/L**
20 pcs		10	6070		**3 842 535 115**
1 pc		10	50 ... 6000	ESD	**3 842 995 027/L**
20 pcs		10	6070	ESD	**3 842 541 814**

Material: Aluminum, anodized

SP 2/R

A = 5,23 cm²
I_x = 4,39 cm⁴
I_y = 11,77 cm⁴
W_x = 2,47 cm³
W_y = 5,23 cm³
m = 1,41 kg/m

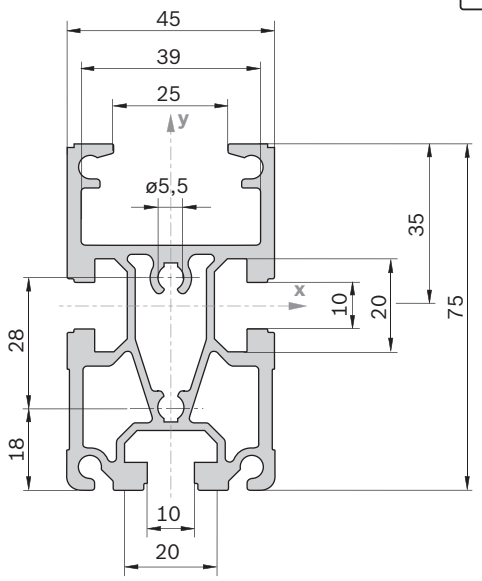


Section profile SP 2/R	L (mm)	No.
	50 ... 6000	**3 842 992 676**

Material: Aluminum, natural-colored, anodized

SP 2/B

A = 10,4 cm²
I_x = 49,6 cm⁴
I_y = 25,8 cm⁴
W_x = 12,1 cm³
W_y = 11,5 cm³
m = 2,8 kg/m



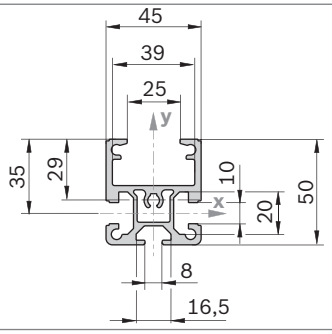
19903

Section profile SP 2/B		Slot	L (mm)	No.
1 pc		10	200 ... 6000	**3 842 992 884/L**
16 pcs		10	6070	**3 842 532 695**

Material: Aluminum, natural-colored, anodized

SP 2/B-50

A = 6,9 cm²
I_x = 16,1 cm⁴
I_y = 16,9 cm⁴
W_x = 5,3 cm³
W_y = 7,5 cm³
m = 1,9 kg/m



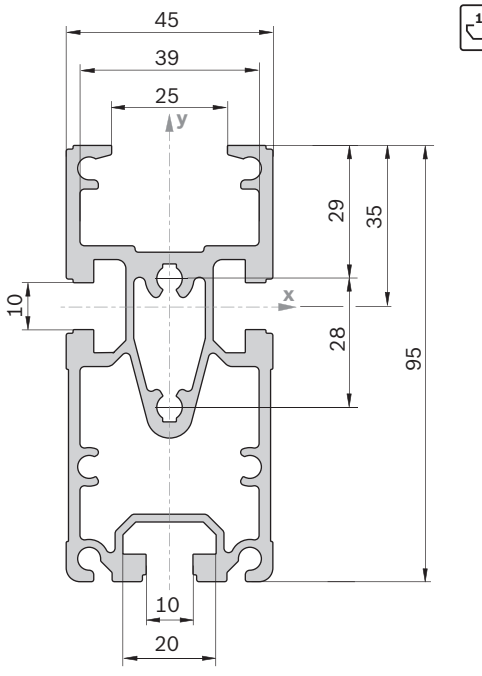
19904

Section profile SP 2/B-50		Slot	L (mm)	No.
1 pc		8 / 10	200...6000	**3 842 992 903/L**
20 pcs		8 / 10	6070	**3 842 532 697**

Material: Aluminum, natural-colored, anodized

SP 2/B-100

A = 11,9 cm²
I_x = 95,1 cm⁴
I_y = 30,4 cm⁴
W_x = 20,0 cm³
W_y = 13,5 cm³
m = 3,2 kg/m



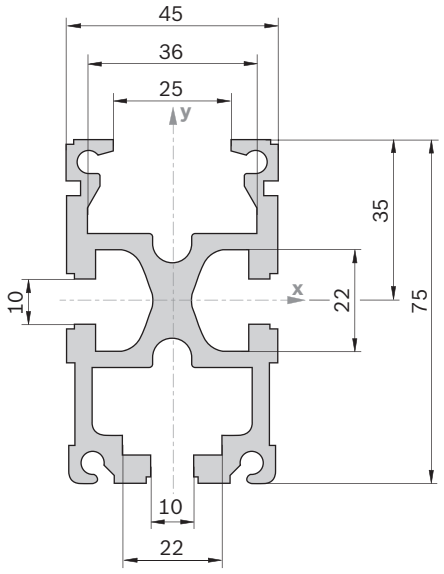
19905

Section profile SP 2/B-100		Slot	L (mm)	No.
1 pc		10	200...6000	**3 842 993 259/L**
16 pcs		10	6070	**3 842 532 608**

Material: Aluminum, natural-colored, anodized

SP 2/BH

A = 12,4 cm²
I_x = 53,7 cm⁴
I_y = 28,6 cm⁴
W_x = 14,0 cm³
W_y = 13,8 cm³
m = 3,3 kg/m



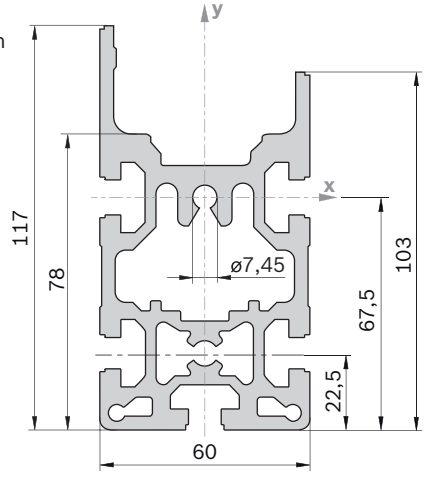
19906

Section profile SP 2/BH	Slot	L (mm)	No.
1 pc	10	200 ... 6000	**3 842 990 409/L**
16 pcs	10	6070	**3 842 532 696**

Material: Aluminum, natural-colored, anodized

SP 4/R

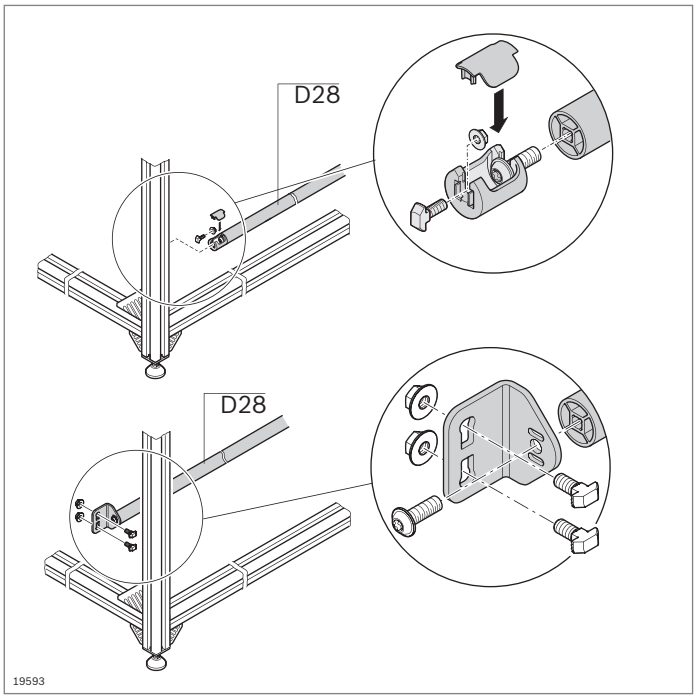
A = 26,13 cm²
I_x = 222,0 cm⁴
I_y = 95,5 cm⁴
W_x = 84,86 cm³
W_y = 16,41 cm³
m = 3,5 kg/m



19907

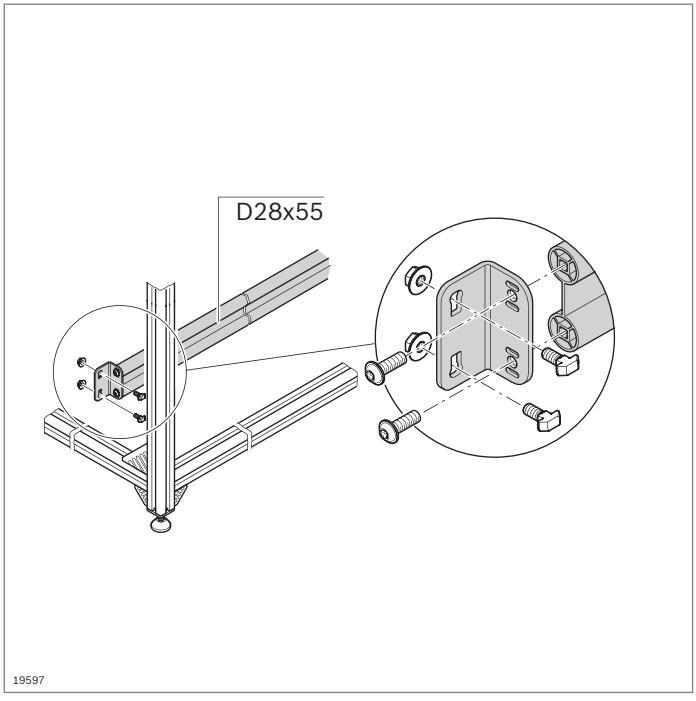
Section profile SP 4/R	Slot	L (mm)	No.
10 pcs	10	6000	**3 842 532 505**

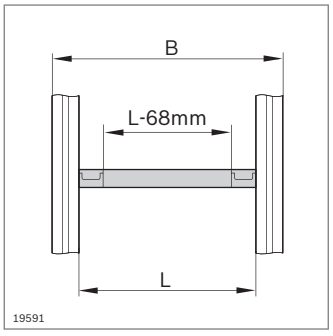
Material: Aluminum, natural-colored, anodized

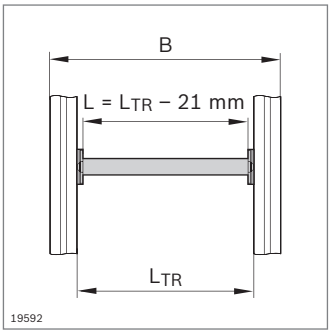


Round tube D28, strut profile D28x55
Bracket, T-connector

- For constructing cross ties in flow racks or workstations
- Designed for heavy loads
- Use of brackets makes for easy assembly
- Elongated hole in the mounting bracket for longitudinal compensation
- Central holes suitable for self-tapping screws S8x25 (p. 3-36)
- For matching components to construct conveyor tracks, see chapter 12 “Elements for manual movement”

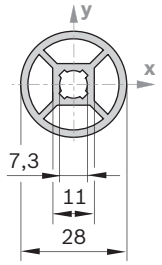






D28

A = 2,35 cm²
I_x = 1,53 cm⁴
I_y = 1,53 cm⁴
W_x = 1,1 cm³
W_y = 1,1 cm³
m = 0,68 kg/m

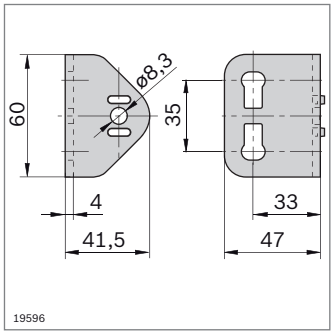


19505

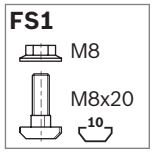
D28 round tube	L (mm)	No.
1 pc	50 ... 6000	**3 842 993 317/L**
20 pcs	6070	**3 842 535 118**

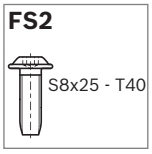
Material: Aluminum, anodized
Optional accessories: Lettering clip (p. 2-79)

Cap D28	Color	ESD		No.
	Gray		20	**3 842 537 718**
	Black		20	**3 842 535 835**



19596



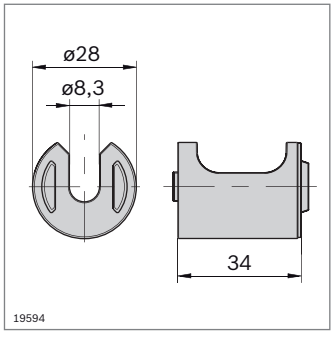


Holding bracket for round tube D28

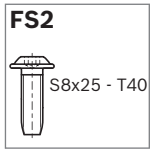
- For mounting a round tube D28 to a strut profile with a 10 mm slot
- Extremely simple mounting thanks to easy adjustment of the installation height

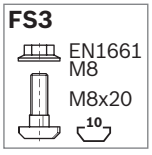
Bracket 60x47x4		No.	FS
	20	**3 842 536 002**	2xFS1, FS2

Material: Steel, galvanized, chromated transparent
Scope of delivery: Incl. fastening material (FS)



19594



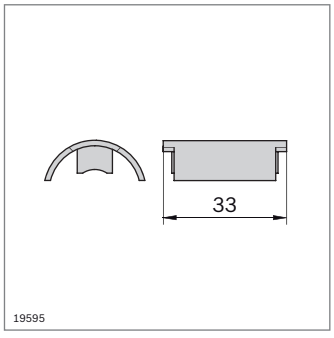


T-connector for round tube D28

- For mounting a round tube D28 to a strut profile with 10 mm slot
- Without interfering contours

T-connector D28		No.	FS
	20	**3 842 532 879**	FS2, FS3

Material: T-connector: diecast aluminum
Cap: ABS, black
Scope of delivery: Incl. cap, fastening material (FS)



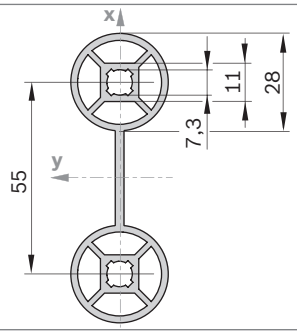
19595

Cap D28		No.
	20	**3 842 532 878**

Material: ABS, black

D28x55

A = 5,9 cm²
I_x = 3,2 cm⁴
I_y = 88,3 cm⁴
W_x = 2,3 cm³
W_y = 23,1 cm³
m = 1,6 kg/m

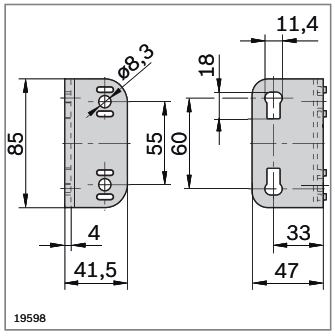


19468

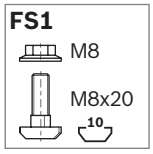
Strut profile D28x55	L (mm)	No.
1 pc	100...6000	**3 842 993 489/L**
20 pcs	6070	**3 842 537 477**

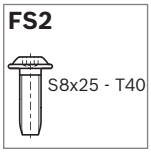
Material: Aluminum, anodized
Optional accessories: Lettering clip (p. 2-79)

Cap D28	Color	ESD		No.
(2x)	Gray		20	**3 842 537 718**
(2x)	Black		20	**3 842 535 835**



19598





Bracket 85x47x4

- For mounting a strut profile D28x55 to a strut profile with a 10 mm slot
- Extremely simple mounting thanks to easy adjustment of the installation height

Bracket 85x47x4		No.	FS
	20	**3 842 536 730**	2xFS1, 2xFS2

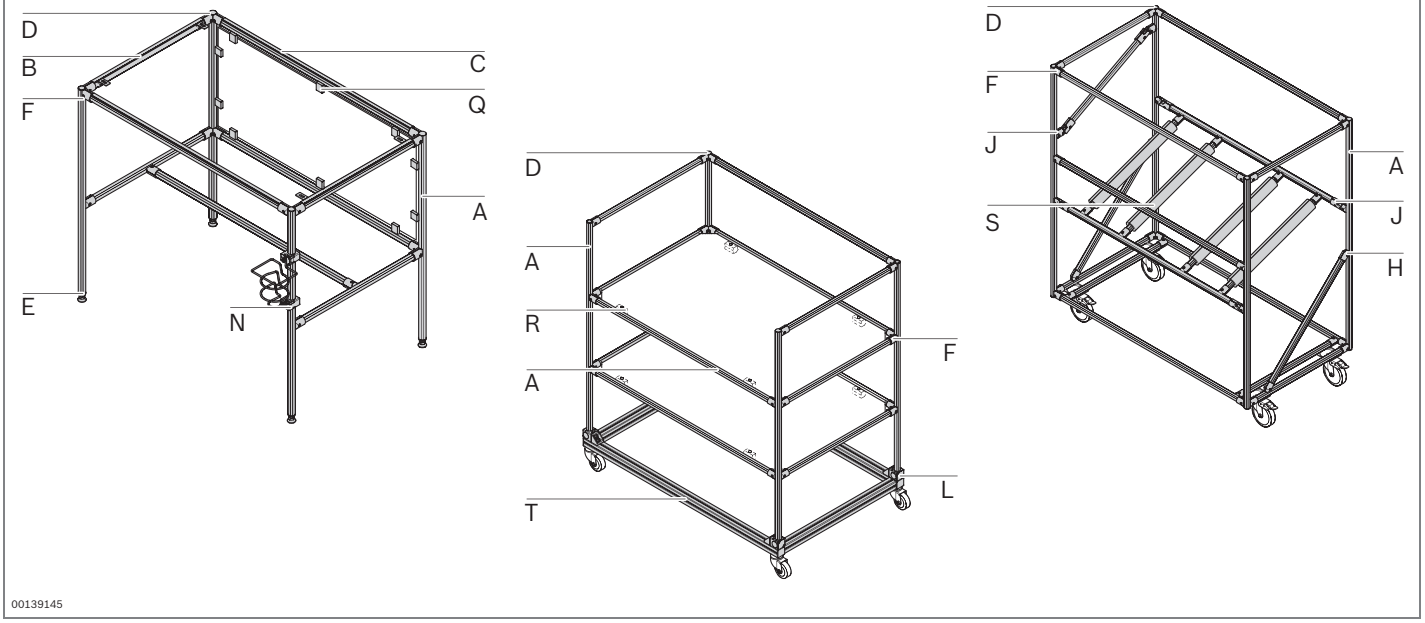
Material: Steel, galvanized, chromated transparent
Scope of delivery: Incl. fastening material (FS)



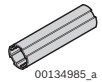
EcoShape tubular framing system

EcoShape is the universal round tube system for the professional, needs-based construction of workstations, material shuttles, shelves, and many other applications.

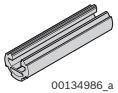
- With just six connectors you create any imaginable connection between two EcoShape profiles – parallel, perpendicular, or at any desired angle. The connectors also fit the round tube D28 (p. 2-66)
- Integrated poka yoke system for easy and secure connector installation: twist locks and interlocking connections for secure joints
- For even greater stability you can combine EcoShape profiles with the modular aluminum framing system
- All connectors are suitable for use in building ESD-conductive systems



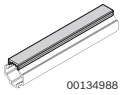
A D28L round tube



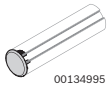
B D28L, N10 round tube



C Slide rail



D Cap



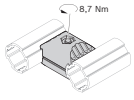
E Threaded sleeve D28L



F 90° connector



G Parallel connector



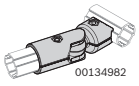
H 45° connector



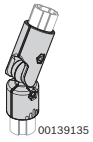
I Cross connector



J 0°-90° connector



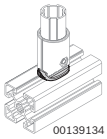
K 0°-90° D28 connector



L Adapter N10, 45



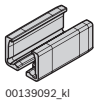
M Adapter N8, N10



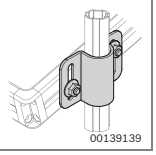
N Adapter N10, 30



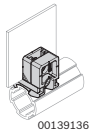
O XLean holder adapter



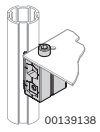
P D28/N10 tube clip



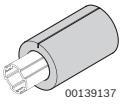
Q Plastic Variofix block



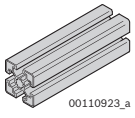
R Diecast zinc Vario-fix block



S Bumper for D28 round tube

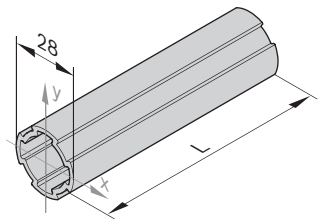


T 45x45L profile



A

A = 1,80 cm²
I_x = 1,33 cm⁴
I_y = 1,33 cm⁴
W_x = 0,95 cm³
W_y = 0,95 cm³
m = 0,48 kg/m



00134985

- Round tube D28L with 4 interfaces for attaching EcoShape connectors

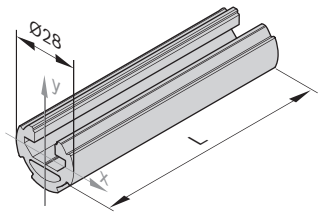
D28L round tube	**L** (mm)	**No.**
1 pc	50 ... 5600	**3 842 996 191/L**
50 pcs	5600	**3 842 541 211**

Material: Aluminum, anodized

B

A = 2,63 cm²
I_x = 1,17 cm⁴
I_y = 1,97 cm⁴
W_x = 0,84 cm³
W_y = 1,41 cm³
m = 0,71 kg/m

10



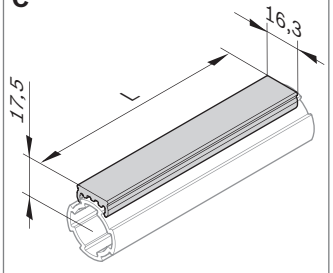
00134986

- Round tube D28L, N10 with 10 mm slot for mounting accessories from the modular aluminum framing system
- 3 interfaces for attaching EcoShape connectors

D28L, N10 round tube	**L** (mm)	**No.**
1 pc	50 ... 5600	**3 842 996 192/L**
20 pcs	5600	**3 842 541 213**

Material: Aluminum, anodized

C



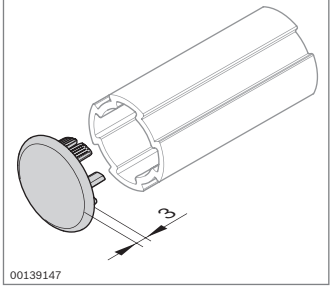
00134987

- Slide rail for creating a simple conveyor track or manual slide section by clipping slide rail onto a D28L round tube

Slide rail	**L** (mm)		**No.**
	2000	10	**3 842 541 196**

Material: PVC, gray

D



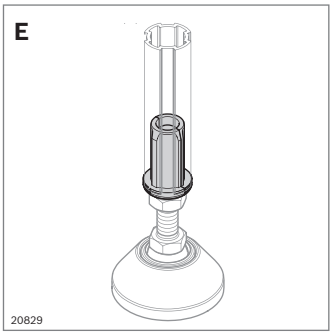
00139147

- Cap for round tube D28L and D28L, N10

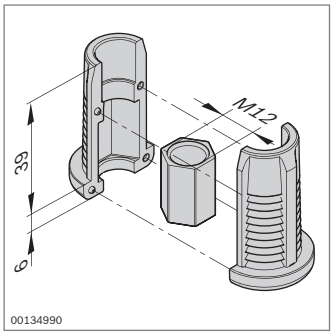
Cap	**ESD**		**No.**
		20	**3 842 541 195**

Material: PA66, black

E



20829

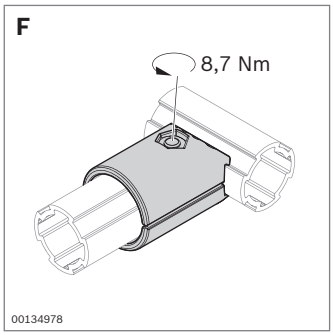


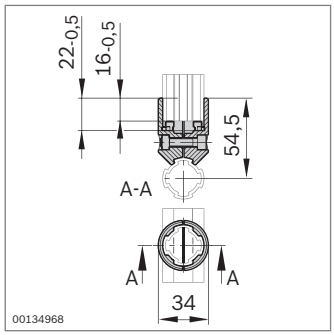
00134990

- Threaded sleeve for integrating a leveling foot or caster. Further information (p. 6-7)

D28L threaded sleeve	**ESD**		**No.**
		20	**3 842 541 185**

Material: PA66, black
Hexagon nut: aluminum

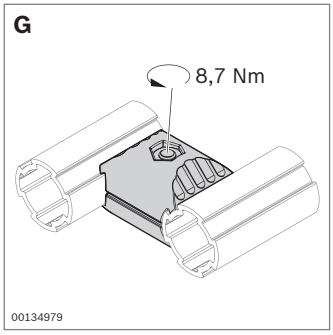


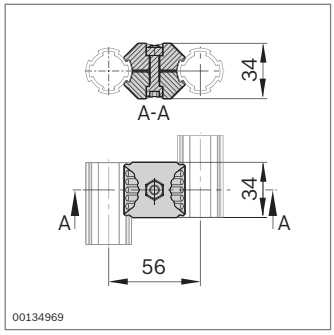


90° connector	ESD		No.	FS
		20	**3 842 541 173**	FS1

Material: Diecast zinc
Scope of delivery: Incl. fastening material (FS)

FS1
ISO 4762 M6x25
ISO 4032 M6

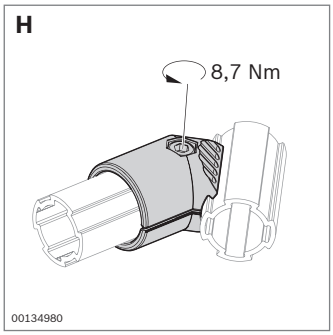


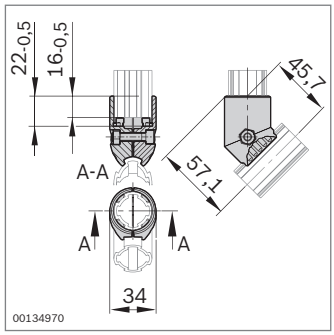


Parallel connector	ESD		No.	FS
		20	**3 842 541 183**	FS1

Material: Diecast zinc
Scope of delivery: Incl. fastening material (FS)

FS1
ISO 4762 M6x25
ISO 4032 M6

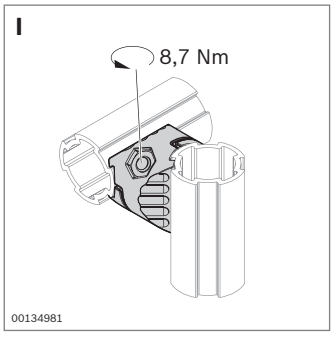


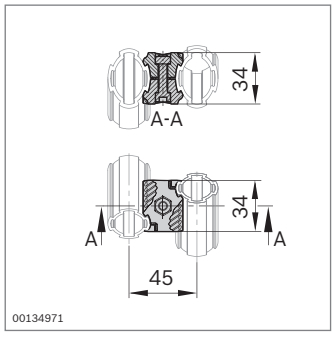


45° connector	ESD		No.	FS
		20	**3 842 541 175**	FS1

Material: Diecast zinc
Scope of delivery: Incl. fastening material (FS)

FS1
ISO 4762 M6x25
ISO 4032 M6

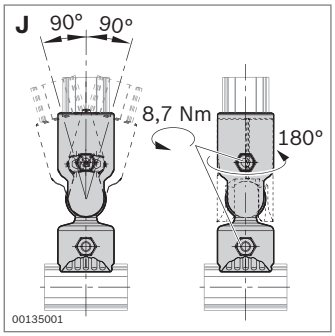


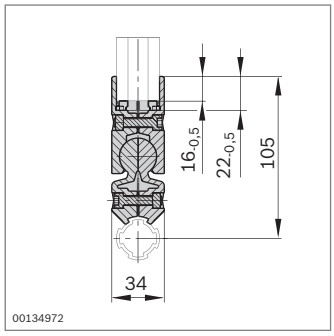


Cross connector	ESD		No.	FS
		20	**3 842 541 181**	FS1

Material: Diecast zinc
Scope of delivery: Incl. fastening material (FS)

FS1
ISO 4762 M6x25
ISO 4032 M6

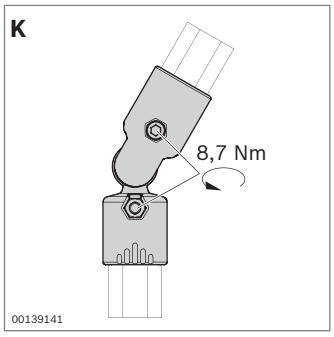


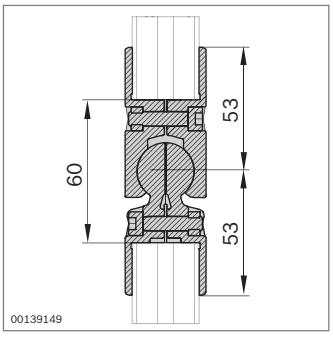


0°-90° connector	ESD		No.	FS
		20	**3 842 541 178**	2xFS1

Material: Diecast zinc
Scope of delivery: Incl. fastening material (FS)

FS1
ISO 4762 M6x25
ISO 4032 M6

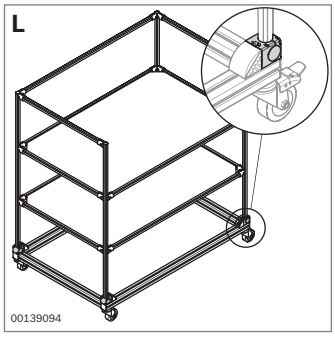


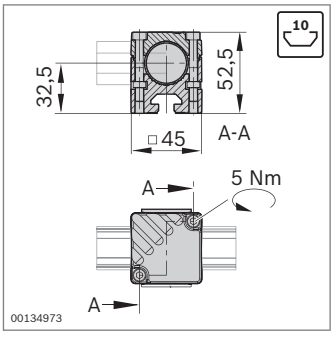


0°-90° D28 connector		No.	FS
	20	**3 842 543 480**	2xFS1

Material: Diecast aluminum
Scope of delivery: Incl. fastening material (FS) (tightening torque 8.7 Nm)

FS1
ISO 4762 M6x25
ISO 4032 M6



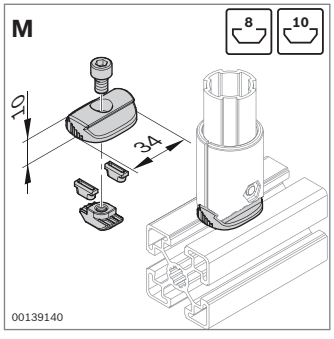


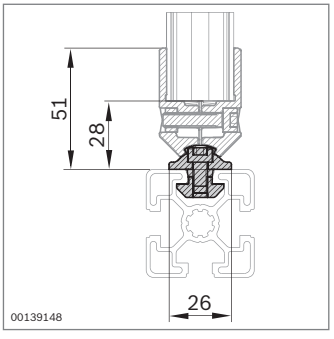
▶ N10/45 adapter for connecting D28L or D28L, N10 round tubes to profiles with a 10 mm slot

N10/45 adapter	ESD		No.	FS
		20	**3 842 541 187**	2xFS2

Material: Adapter: diecast aluminum
Cap: PE
Scope of delivery: Incl. cap, fastening material (FS)

FS2
ISO 4762 M5x40
DIN 934 M5





▶ N8, N10 adapter for connecting an MGE strut profile (8 mm, 10 mm slots)

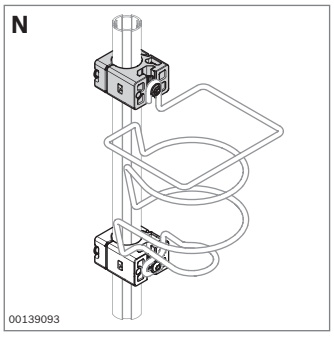
N8, N10 adapter		No.	FS
	20	**3 842 543 272**	FS3, FS4

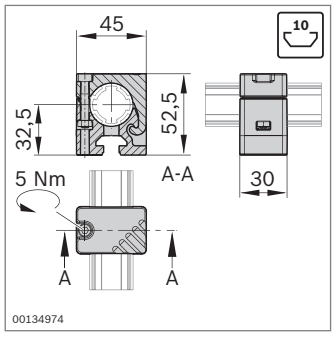
Material: Diecast zinc
Scope of delivery: Incl. fastening material (FS) (tightening torque 8.7 Nm)

FS3
ISO4762 M6x10
M6 8

FS4
ISO4762 M6x12
M6 10

N





▶ N10/30 adapter for mounting light accessories such as a bottle holder to a D28L round tube

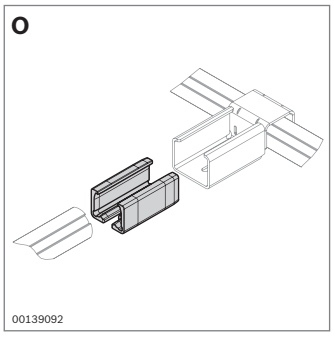
N10/30 adapter	ESD		No.	FS
		20	**3 842 541 190**	FS5

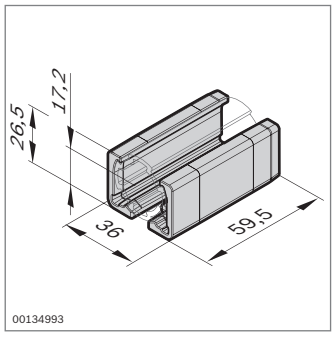
Material: Diecast zinc
Scope of delivery: Incl. fastening material (FS)

FS5



O



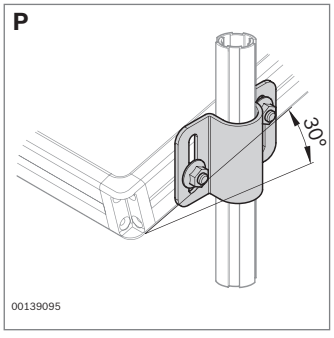


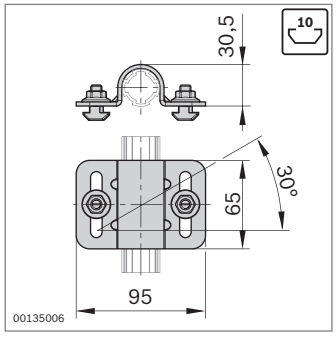
▶ XLean adapter for combination with XLean. The XLean adapter connects the D28L round tube with the XLean rail holder (see MPS 4.0, p. 76, 77)

XLean adapter	ESD		No.
		20	**3 842 541 296**

Material: PA66, black

P



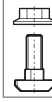


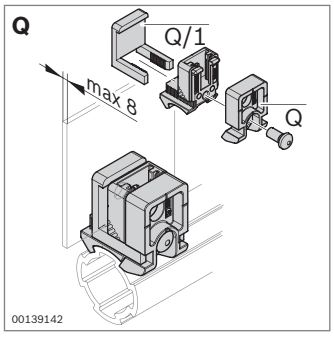
▶ D28L/N10 tube clip for fastening material shelves with a 10 mm slot to round tube D28L; inclinations up to 30 degrees possible

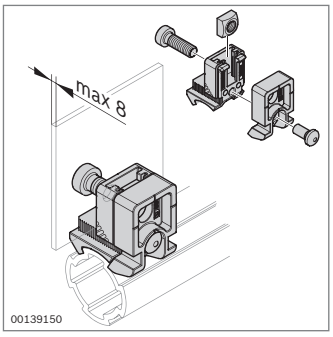
D28L/N10 tube clip	ESD		No.	FS
		20	**3 842 541 193**	FS6

Material: Steel, galvanized
Scope of delivery: Incl. fastening material (FS)

FS6







- Plastic Variofix block for fastening surface elements with a snap-in clip or screw
- Variofix remover for releasing the snap-in clip (p. 14-7)

Plastic Variofix block	ESD		No.	FS
Q		20	**3 842 543 311**	FS7, FS8

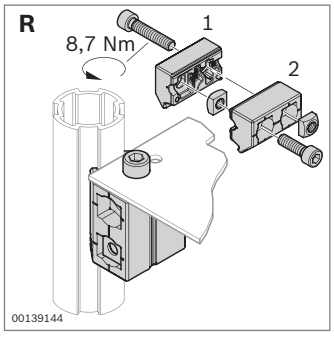
Material: PA66, black
Scope of delivery: Incl. fastening material (FS)

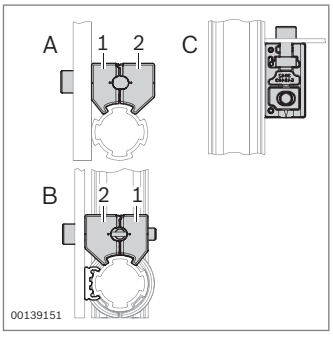
FS7
ISO 4762 M6x16
DIN 557 M6

FS8
M5x10

Snap-in clip	ESD		No.
Q/1		10	**3 842 184 738**

Material: PA6



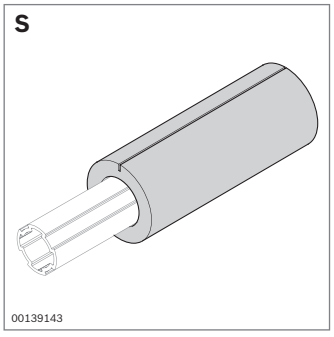


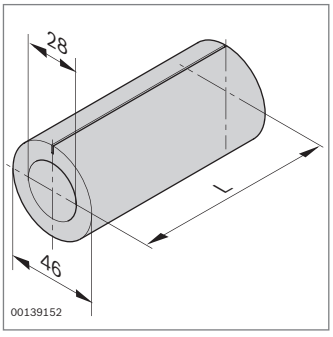
- Diecast zinc Variofix block for fastening surface elements
- Three arrangements possible (“A”, “B”, “C”)

Diecast zinc Variofix block	ESD		No.	FS
		20	**3 842 543 494**	FS9

Material: Diecast zinc
Scope of delivery: Incl. fastening material (FS)

FS9
ISO 4762 M6x22
ISO 4762 M6x30
2x DIN 557 M6

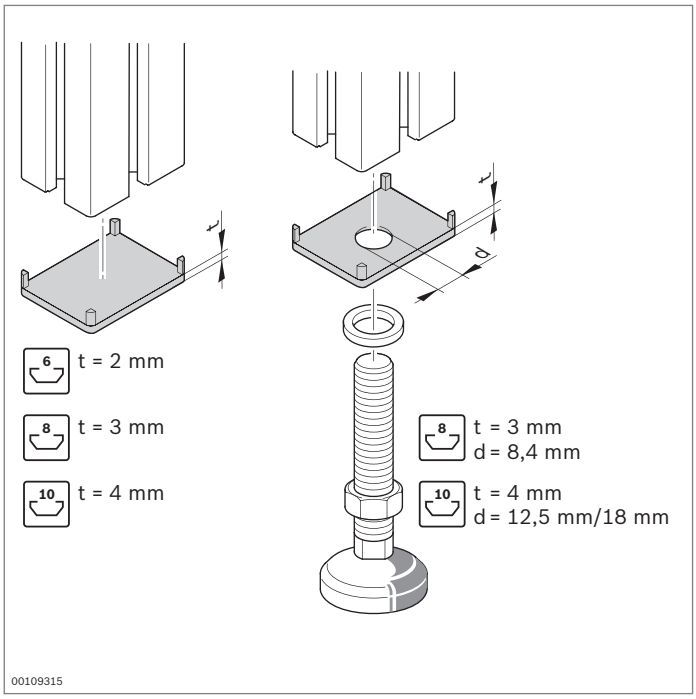




- Bumper for round tube D28 and D28L

Bumper	L (mm)		No.
	2000	10	**3 842 544 637**

Material: LDPE

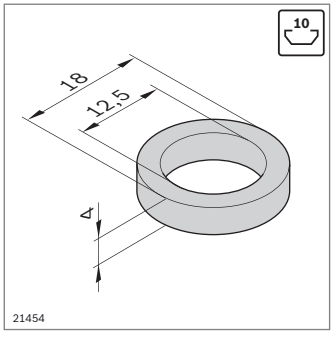


Cap
Cap with hole

6 8 10

- To prevent injuries at open profile ends
- Attractive design
- Cap with hole for use with leveling feet and rollers
- Cap material: PA

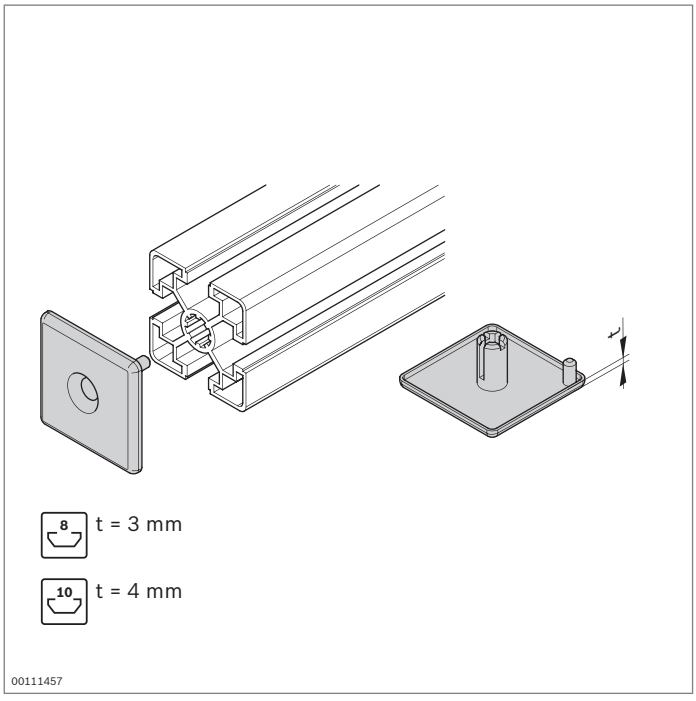
Order information for the caps can be found in the profile section.



Bearing ring

- For caps with hole
- For M12 threads
- To protect the caps when tightening accessories

Bearing ring		No.
	100	**3 842 536 321**
Material:	Stainless steel	



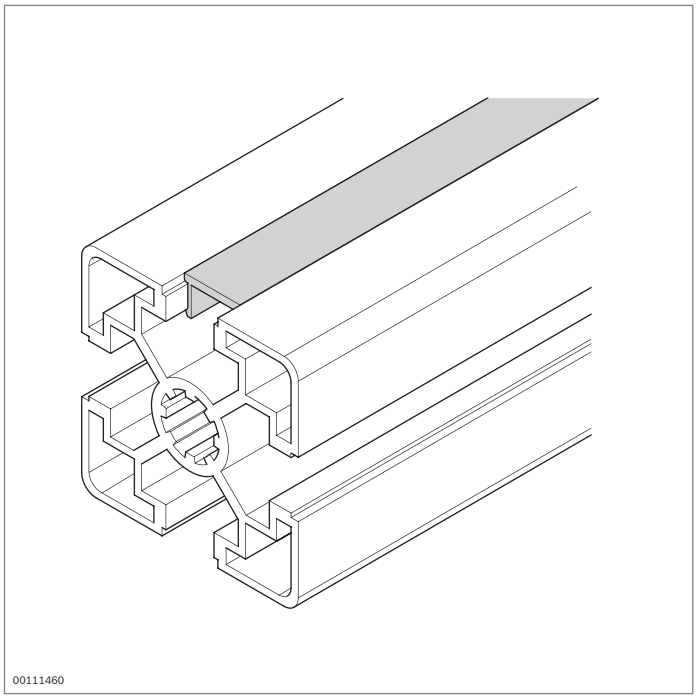
Diecast zinc cap

- Shock-proof
- Resistant to aggressive media
- Fastening with countersunk screw; profile finishing not required

Cap		L1xL2	No.	FS
30x30-ZN		30x30	**3 842 518 204**	FS1
40x40-ZN		40x40	**3 842 541 807**	FS2
45x45-ZN		45x45	**3 842 518 205**	FS2
Material:	Diecast zinc			

FS1
DIN 7991 M4x16

FS2
DIN 7991 M6x16

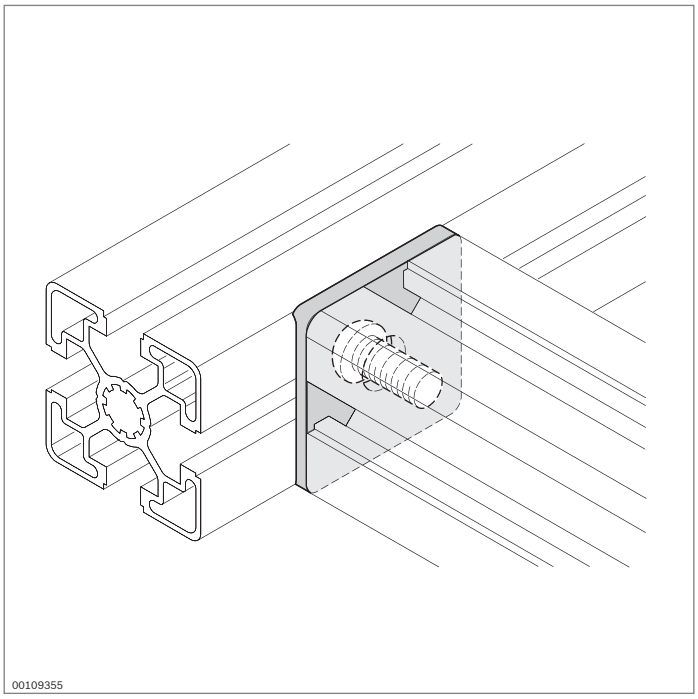


Cover profiles

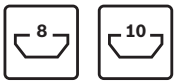


- For mounting cables
- To prevent dirt from entering the profile slot
- Attractive design
- Soft PVC cover profile for 6 mm slot is provided as a roller
- Flush with profile

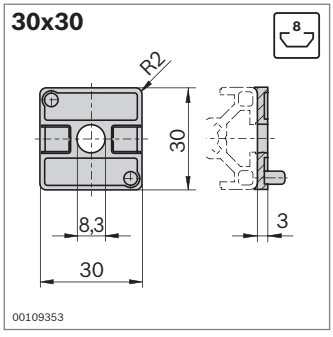
Cover profiles	Slot		Color	L (mm)		No.
Aluminum, anodized	6	 00109365	Colorless, natural	2000	10	**3 842 523 254**
	8	 00109366	Colorless, natural	2000	10	**3 842 523 256**
	10	 00109368	Colorless, natural	2000	10	**3 842 523 258**
Soft PVC	6	 00117777	Light gray (RAL 7035)	10,000	1	**3 842 542 435**
Hard PVC	8	 00109367	Black (RAL 9005)	2000	10	**3 842 501 962**
			Colorless, transparent	2000	10	**3 842 503 073**
			Light gray (RAL 7035)	2000	10	**3 842 518 375**
			Red (RAL 3020)	2000	10	**3 842 518 376**
			Yellow (RAL 1023)	2000	10	**3 842 518 377**
			Blue (RAL 5010)	2000	10	**3 842 538 956**
			Orange (RAL 2004)	2000	10	**3 842 538 958**
	10	 19502	Black (RAL 9005)	2000	10	**3 842 146 901**
			Colorless, transparent	2000	10	**3 842 191 182**
			Light gray (RAL 7035)	2000	10	**3 842 518 367**
			Red (RAL 3020)	2000	10	**3 842 518 368**
			Yellow (RAL 1023)	2000	10	**3 842 518 369**
			Blue (RAL 5010)	2000	10	**3 842 538 955**
			Orange (RAL 2004)	2000	10	**3 842 538 957**



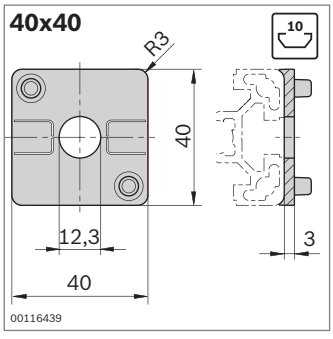
Radial compensation



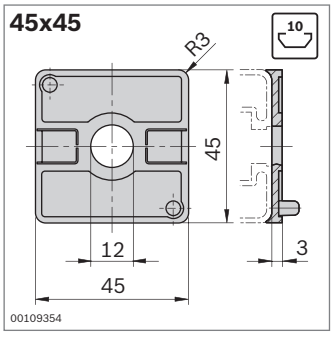
- For avoiding gaps and sharp edges on T-connections between two profiles using a central bolt or quick connector (note spacing of hole from the end of the profile)
- Slot segments can be broken out to support surface elements in the slot
- Important note: the load carrying capacity of the profile connection is reduced when using a radial compensation (see “Technical data”, page 19-10)!



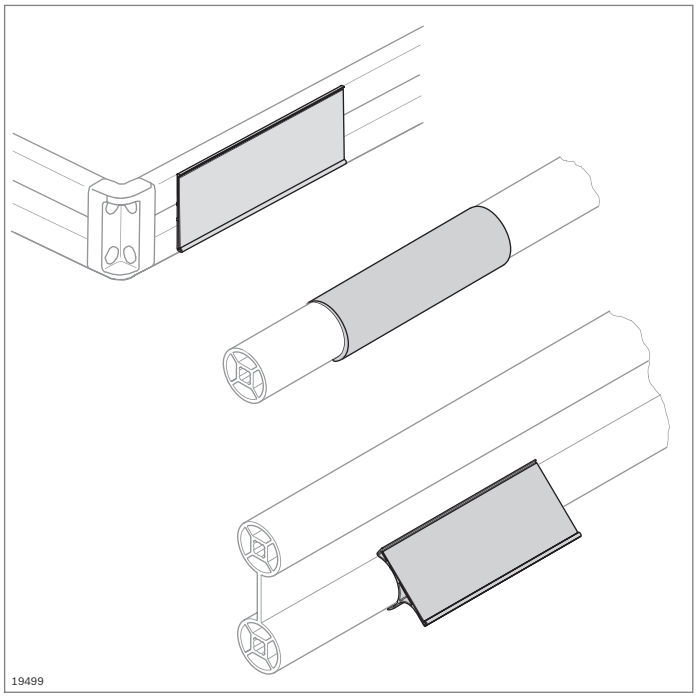
Radial compensation	Slot		No.
30x30	8	10	**3 842 524 415**
Material: PA, light gray RAL 7035			



Radial compensation	Slot		No.
40x40	10	10	**3 842 529 026**
Material: PA, light gray RAL 7035			

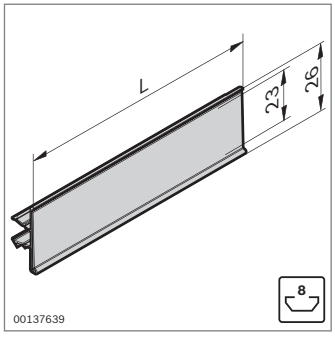


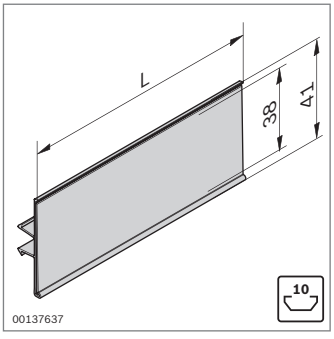
Radial compensation	Slot		No.
45x45	10	10	**3 842 524 414**
Material: PA, light gray RAL 7035			



Lettering clips

- For labeling profiles and tubular cross ties

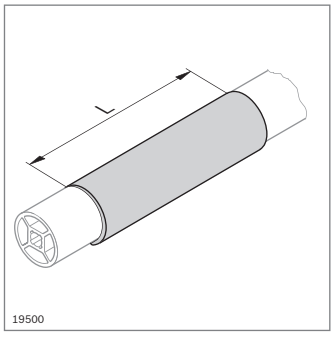




- Lettering clip for strut profiles with 8 mm and 10 mm slot

Lettering clip	Slot	L (mm)		No.
	8	2000	20	**3 842 537 113**
	8	102	20	**3 842 537 650**
	10	2000	20	**3 842 537 116**
	10	102	20	**3 842 537 651**

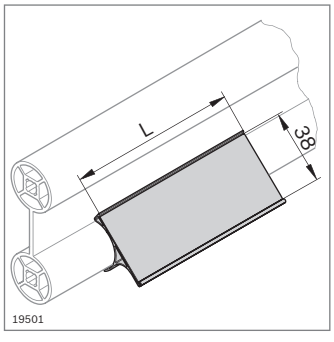
Material: Hard PVC, light gray (RAL 7035), transparent



- Self-adhesive
- Lettering clip with rounded text surface for strut profiles D28; D28L; D28L, N10, and D28x55
- Label height 38 mm

Lettering clip	L (mm)		No.
For tubular cross ties	2000	20	**3 842 535 136**
	120	20	**3 842 538 093**

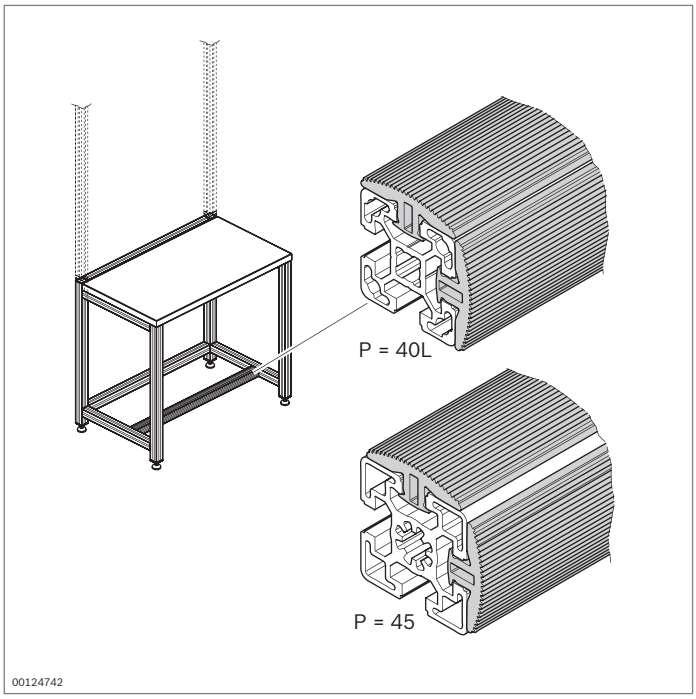
Material: Hard PVC, colorless, transparent



- Self-adhesive
- Lettering clip with flat text surface for strut profiles D28; D28L; D28L, N10, and D28x55

Lettering clip	L (mm)		No.
For tubular cross ties	2000	20	**3 842 537 119**
	120	20	**3 842 537 652**

Material: Hard PVC, light gray (RAL 7035), transparent



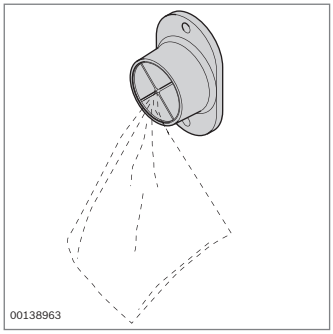
Rubber profile
Cloth holder

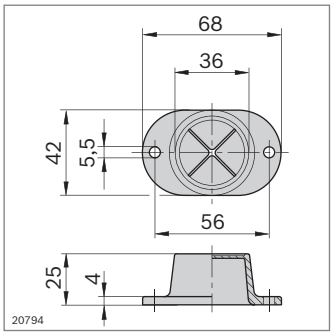
Rubber profile

- To avoid impact on hard edges, such as when setting down impact-sensitive products
- For use as footrest to clip in from top and front on the cross strut of the workstation
- Very simple and inexpensive
- Suitable for the construction of ESD workstations

Rubber profile	L (mm)	ESD		No.
	30 ... 2000		1	**3 842 994 979/L**
	2000		10	**3 842 537 135**

Material: EPDM; conduction resistance
RA = 1x10³ – 1x10⁹ Ω





Screwed-on cloth holder

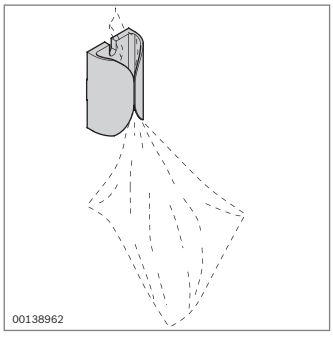
- For hanging cleaning cloths

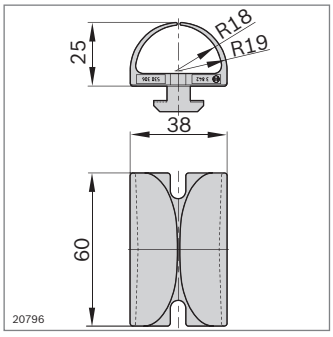
Required accessories:

- T-nut, 10 mm slot, M5 (**3 842 530 283**) (p. 3-4)
- Screw DIN 7984 M5x12

Screwed-on cloth holder	No.
	1 845 719 000

Material: PE, black





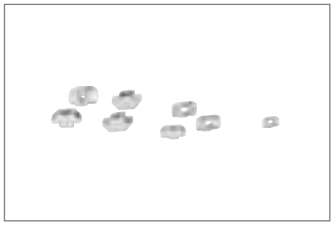
Cloth holder with clamp base

- With injection molded clamp base for direct assembly on strut profile with 10 mm slot
- Can also be used as a cable guide

Cloth holder with clamp base	No.
	3 842 530 306

Material: PA6, black

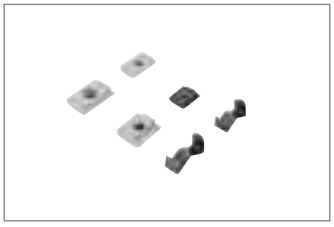
Connection elements



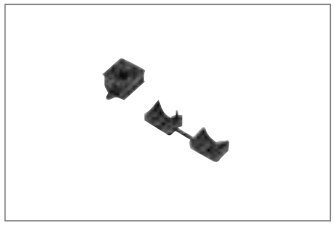
T-nut (p. 3-4)
Collar screw (p. 3-5)



Flange nut, T-bolt (p. 3-6)



Sliding block (p. 3-7)



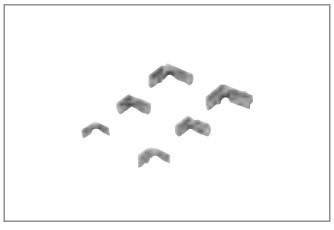
Straddling nut (p. 3-10)



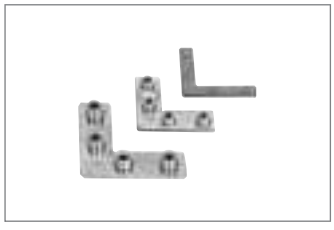
Parallel connector (p. 3-11)



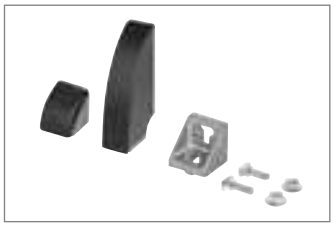
Tensioning connector (p. 3-12)



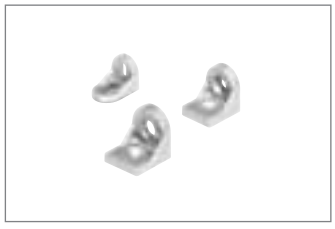
Inner bracket (p. 3-13)
Inner bracket R (p. 3-14)



Miter bracket (p. 3-16)



Bracket (p. 3-17)



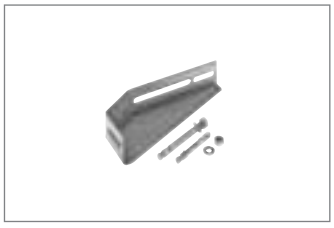
Bracket R (p. 3-28)



Steel bracket (p. 3-30)



Metal bracket for supporting bracket (p. 3-31)



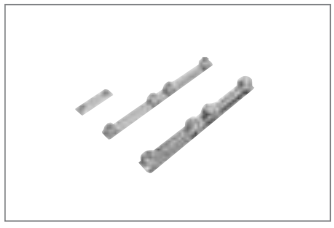
Foundation bracket (p. 3-32)



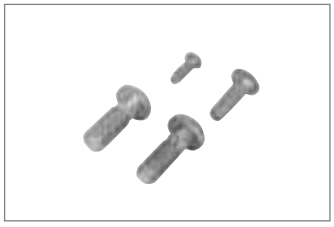
Holder (p. 3-33)



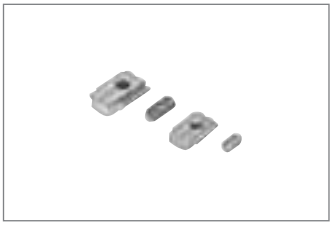
Supporting bracket (p. 3-34)



Profile connector (p. 3-35)



Central bolt (p. 3-36)



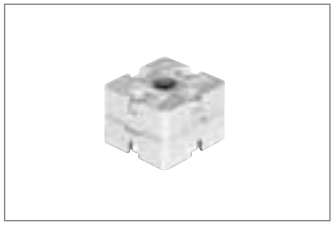
Anti-torsion element (p. 3-37)



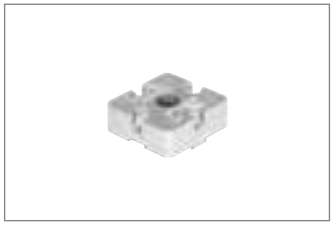
Cubic connector (p. 3-38)



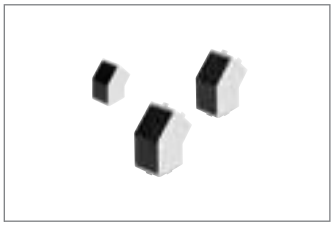
Corner bracket (p. 3-41)



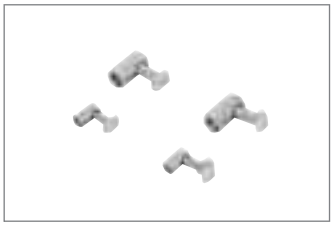
End connector (p. 3-43)



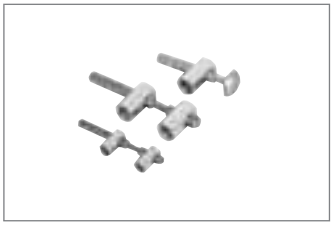
T-connector (p. 3-45)



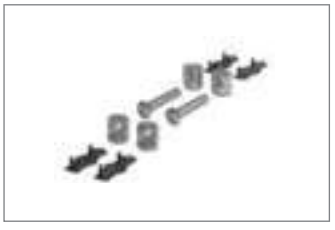
45° connector (p. 3-47)



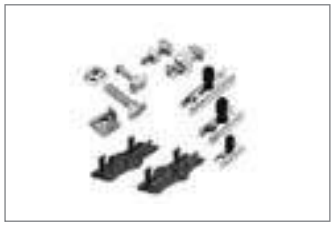
Quick connector (p. 3-48)



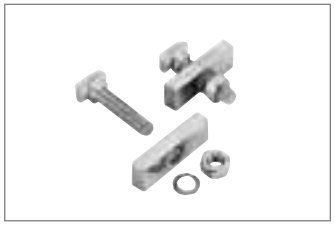
Quick connector, bendable (p. 3-51)



Longitudinal end connector (p. 3-53)



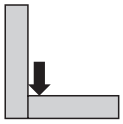
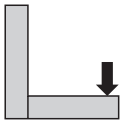
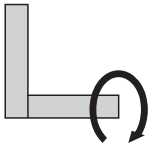
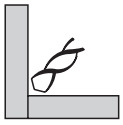
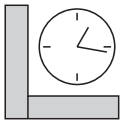
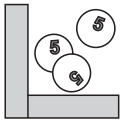
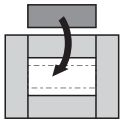
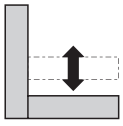
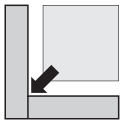
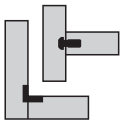
Bolt connector (p. 3-54)

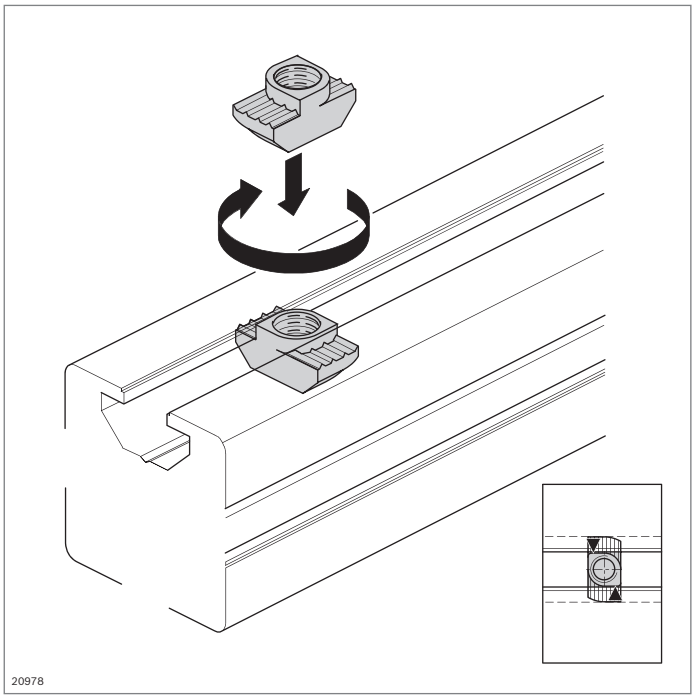


Cross connector (p. 3-56)

Connection elements, selection criteria

● Recommended ◑ Suitable ○ Unsuitable

	Bracket	Inner bracket	Bolt connector	Central bolt	Quick connector	T-connector	Tensioning connector
 High feed force	●	○	●	●	●	●	●
 High moment	●	○	●	◑	○	◑	◑
 High torsional moment	◑	○	●	○	○	●	●
 Minimal finishing work	●	●	◑ D17	◑ M12 9,8	◑ D17	●	●
 Minimal assembly	●	●	○	●	●	○	●
 Low parts costs	◑	◑	○	●	◑	○	◑
 Subsequent mounting in closed frame	●	○	●	○	○	◑	●
 Adjustment possible	●	◑	●	○	●	●	●
 Support of surface elements	◑	◑	○	●	●	○	◑
 Internal connection (concealable)	○	●	●	●	◑	◑	●



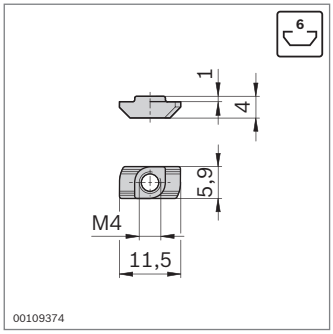
T-nut



- Standard element for secure, conductive connections
- Stop for correct positioning in the profile slot
- Stainless steel T-nuts, e.g. for outdoor or cleanroom applications
- Profile finishing: not required

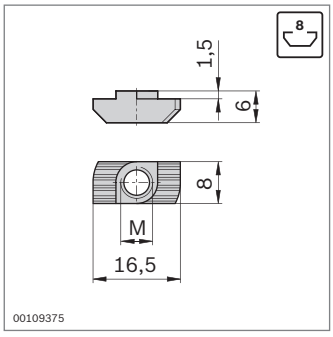
Technical data (p. 19-5)

Accessories:
Insulating cap (p. 3-5)



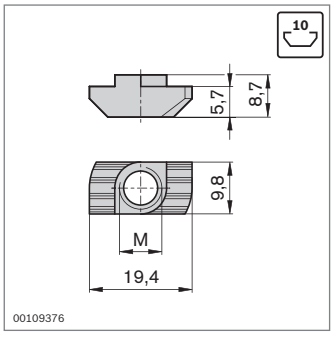
Slot	F_{max}
6	1700 N

T-nut, 6 mm slot	Slot	M	ESD		No.
Steel, galvanized	6	M4		100	**3 842 523 135**
Steel, stainless	6	M4		100	**3 842 536 599**



Slot	F_{max}
8 (M6)	4000 N

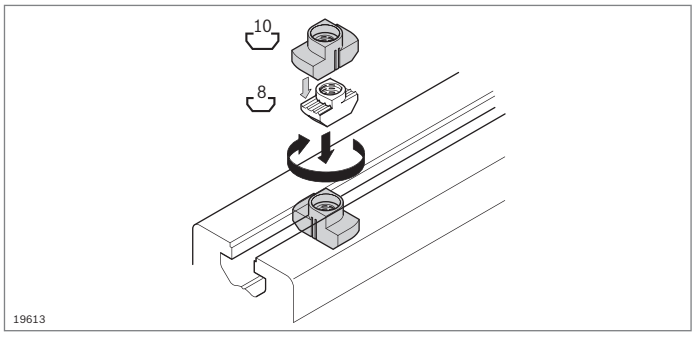
T-nut, 8 mm slot	Slot	M	ESD		No.
Steel, galvanized	8	M4		100	**3 842 501 751**
		M5		100	**3 842 501 752**
		M6		100	**3 842 501 753**
Steel, stainless	8	M4		100	**3 842 536 600**
		M5		100	**3 842 536 601**
		M6		100	**3 842 536 602**



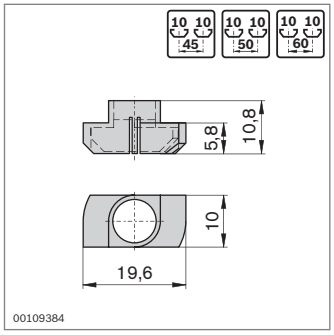
Slot	F_{max}
10 (M8)	6000 ... 18,000 N[1)]

[1)] Depending on profile (p. 19-5)

T-nut, 10 mm slot	Slot	M	ESD		No.
Steel, galvanized	10	M4		100	**3 842 530 281**
		M5		100	**3 842 530 283**
		M6		100	**3 842 530 285**
		M8		100	**3 842 530 287**
Steel, stainless	10	M4		100	**3 842 536 606**
		M5		100	**3 842 536 605**
		M6		100	**3 842 536 604**
		M8		100	**3 842 536 603**

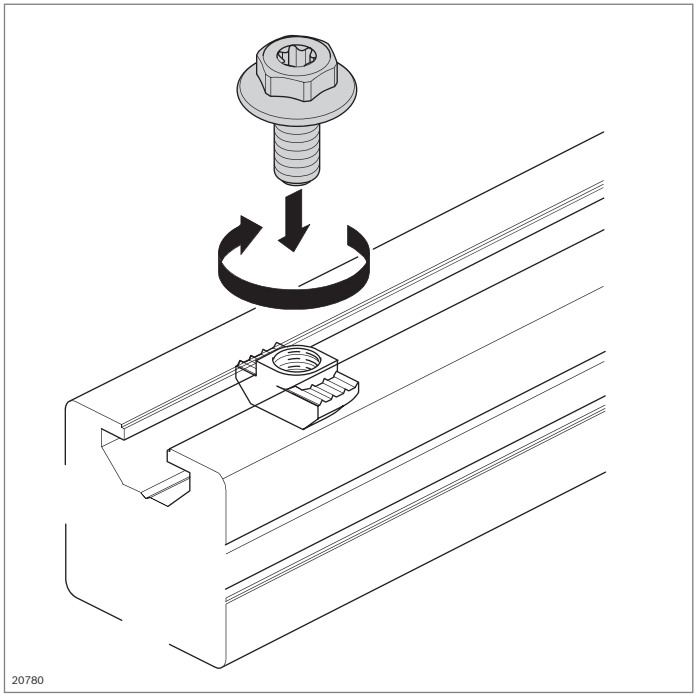


- Insulating cap for decoupling directly grounded components; for use with T-nuts for 8 mm slots in a 10 mm slot



Insulating cap for T-nut, 8 mm slot	Slot		No.
	10	10	**3 842 524 012**

Material: High-strength PA, black

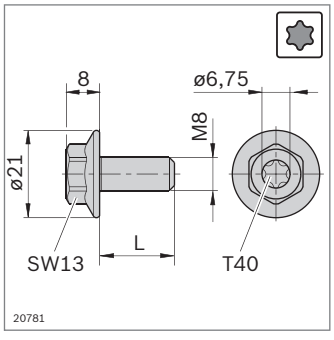


Collar screw

- Collar screws with multi-function head for tightening with ring/open-end wrench (WS 13) or Torx offset screwdriver (T40)
- Machine threading possible
- Preferably for bracket fastening
- Quick and simple assembly
- Excellent force transmission via broad flange
- ESD-capable
- Polymer spot for precise positioning of T-nut

Tool:
Offset screwdriver (p. 14-6)

Accessories:
T-nut (p. 3-4)

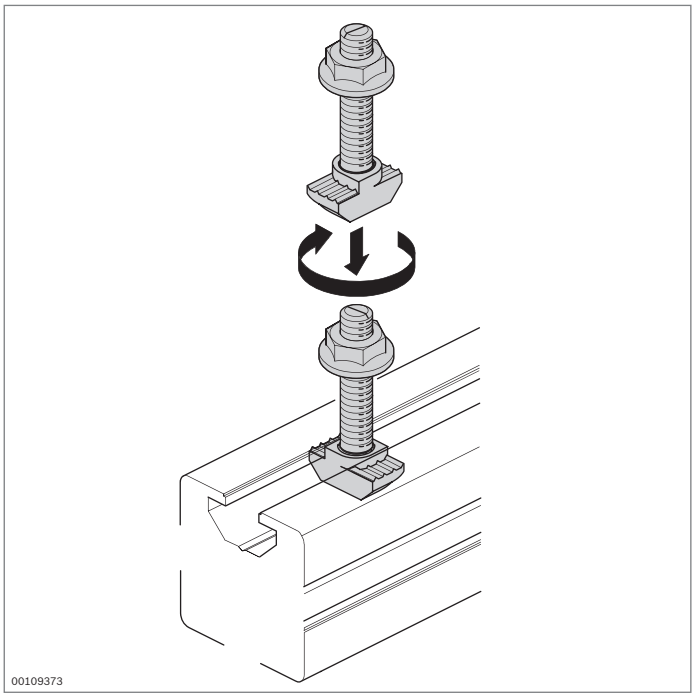


Collar screw	M	L (mm)	ESD		No.
M8x18-SW13-T40[1]	M8	18	ESD	100	**3 842 541 246**
M8x20-SW13-T40[2]	M8	20	ESD	100	**3 842 541 409**

[1] For 40/40 and 60/60 brackets

[2] For all other brackets for 10 mm slot

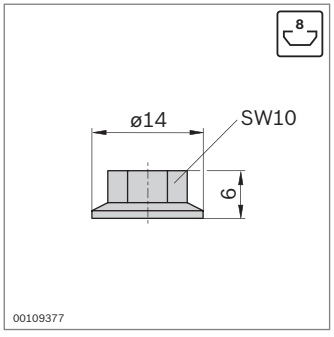
Material: Steel, galvanized

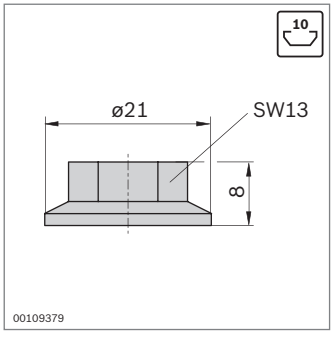


T-bolt
Flange nut

- Secure, conductive connection
- Notch at bolt end as marker for correct position identification
- Profile finishing: not required

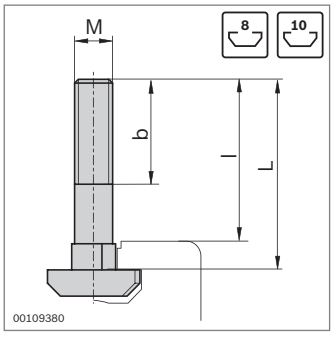
Technical data (p. 19-5)





Flange nut	Slot	M	ESD		No.
	8	M6		100	**3 842 523 925**
	10	M8		100	**3 842 345 081**

Material: Steel, galvanized

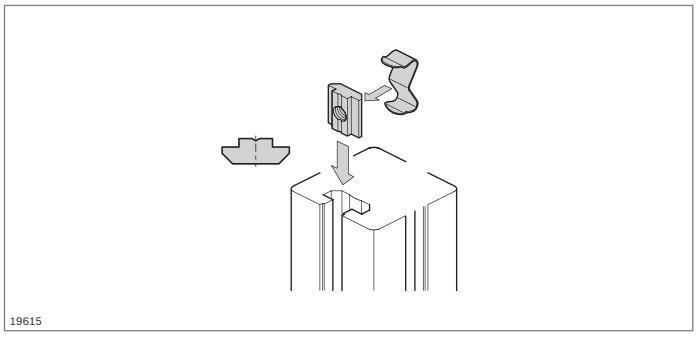


Slot	F_{max}
8	4000 N
10	6000 ... 18,000 N[1)]

[1)] Depending on profile (p. 19-5)

T-bolt	Slot	MxL	**b** (mm)	**l** (mm)	ESD		No.
	8	M6x16	10	14		100	**3 842 523 920**
		M6x20	14	18		100	**3 842 523 921**
		M6x25	18	23		100	**3 842 523 922**
	10	M8x20	14	14		100	**3 842 528 715**
		M8x25	19	19		100	**3 842 528 718**
		M8x30	24	24		100	**3 842 528 721**
		M8x40	22	34		100	**3 842 528 724**
		M8x50	22	44		100	**3 842 528 727**

Material: Steel, galvanized

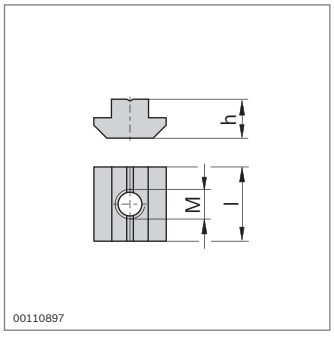


Sliding block, sliding block profile, spring



- Sliding block for reliable absorption of high forces
- Sliding block profile for self-assembly of individual fastening elements
- Profile finishing: not required

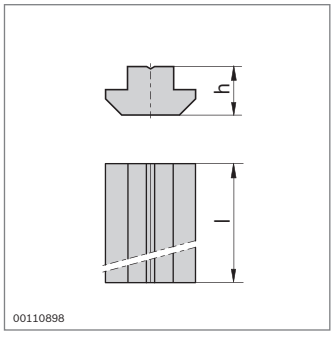
Technical data (p. 19-5)



Slot	F_{max}
6 (M5)	3000 N
8 (M8)	6000 N
10 (M8)	8000 to 18,000 N[1)]

[1)] Depending on profile (p. 19-5)

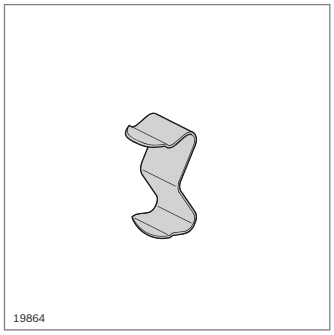
Sliding block	Slot	M	h (mm)	l (mm)	ESD		No.
Steel, galvanized	6	M4	4.0	12	✓	100	**3 842 542 692**
		M5	4.0	12	✓	100	**3 842 542 693**
	8	M4	6.0	16		100	**3 842 514 928**
		M5	6.0	16		100	**3 842 514 929**
		M6	6.0	16		100	**3 842 514 930**
		M8	6.0	16		100	**3 842 514 931**
	10	M5	10.5	20		100	**3 842 528 741**
		M6	10.5	20		100	**3 842 528 738**
		M8	10.5	20		100	**3 842 528 735**
Steel, stainless	6	M4	10.5	20	✓	100	**3 842 523 140**
		M5	10.5	20	✓	100	**3 842 523 142**



Slot	F_{max}
6 (M5)	3000 N
8 (M8)	6000 N
10 (M8)	8000 to 18,000 N[1)]

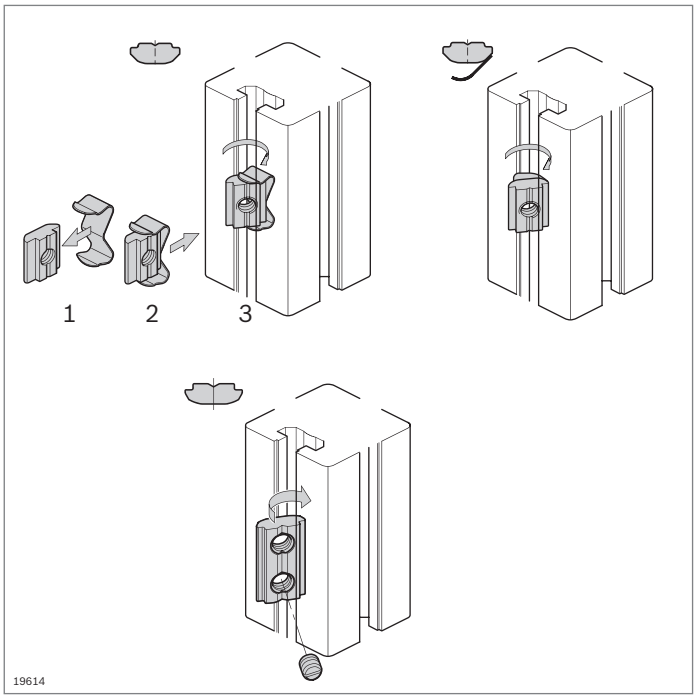
[1)] Depending on profile (p. 19-5)

Sliding block profile	Slot	h (mm)	l (mm)	No.
Steel, galvanized	6	4.0	1000	**3 842 542 694**
Steel, stainless	6	4.0	1000	**3 842 523 438**
Steel, bare, oiled	8	6.0	1000	**3 842 510 078**
	10	10.5	1000	**3 842 528 744**



- The spring assists with the assembly and positioning of the sliding block and swivel-in sliding block

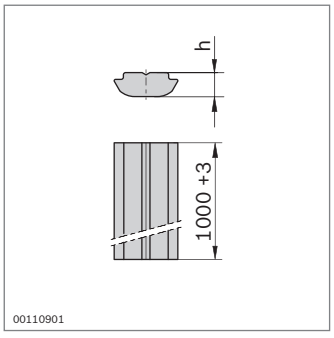
Spring	Slot		No.
Spring steel, stainless	6	100	**3 842 523 145**
	8	100	**3 842 516 685**
	10	100	**3 842 516 669**



Sliding block, swivel-in
Sliding block profile, swivel-in

- Swivel-in sliding block profile for self-assembly of individual fastening elements
- The swivel-in sliding block can be inserted directly at the assembly point for easy assembly
- The swivel-in sliding block with spring can be inserted directly at the assembly point and fixed in position thanks to attached springs
- The swivel-in sliding block with headless setscrews permits shake-proof fixing in all positions
- Profile finishing: not required

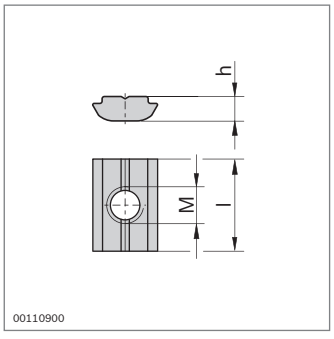
Technical data (p. 19-5)



Slot	F_{max}
8 (M8)	2200 N
10 (M8)	8000 to 18,000 N[1)]

1) Depending on profile (p. 19-5)

Sliding block profile, swivel-in	Slot	h (mm)	l (mm)	No.
Steel, bare, oiled	8	4.8	1000	**3 842 529 327**
	10	5.3	1000	**3 842 529 325**

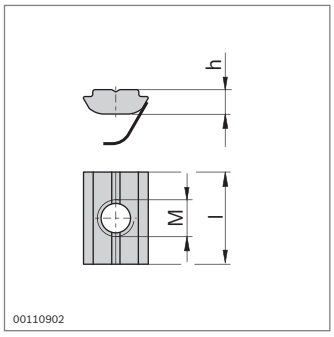


Slot	F_{max}
8 (M8)	2200 N
10 (M8)	8000 to 18,000 N[1)]

1) Depending on profile (p. 19-5)

Sliding block, swivel-in	Slot	M	h (mm)	l (mm)		No.
Steel, stainless	6	M4	3.0	12	100	**3 842 536 669**
	8	M6	4.8	16	100	**3 842 530 321**
	10	M8	5.3	20	100	**3 842 530 316**
Steel, galvanized	8	M5	4.8	16	100	**3 842 529 319**
		M6	4.8	16	100	**3 842 529 320**
		M8	4.8	16	100	**3 842 529 321**
	10	M6	5.3	20	100	**3 842 529 323**
		M8	5.3	20	100	**3 842 529 324**

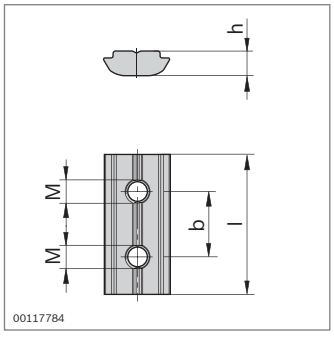
Accessories: Spring (p. 3-7)



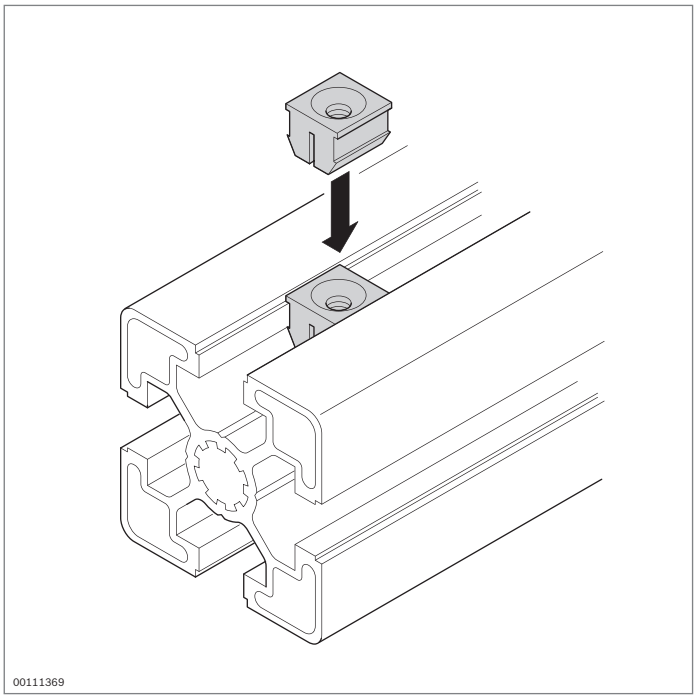
Slot	F_{max}
8 (M8)	2200 N
10 (M8)	8000 to 18,000 N[1)]

[1)] Depending on profile (p. 19-5)

Sliding block, swivel-in, with spring	Slot	M	h (mm)	l (mm)	ESD		No.
Steel, galvanized, chromated transparent Spring: spring steel, stainless	8	M4	4.8	16	✓	100	**3 842 529 294**
		M5	4.8	16	✓	100	**3 842 529 295**
		M6	4.8	16	✓	100	**3 842 529 296**
		M8	4.8	16	✓	100	**3 842 529 297**
	10	M4	5.3	20	✓	100	**3 842 541 393**
		M5	5.3	20	✓	100	**3 842 529 298**
		M6	5.3	20	✓	100	**3 842 529 299**
		M8	5.3	20	✓	100	**3 842 529 300**



Sliding block, swivel-in, with headless setscrew	Slot	M	b (mm)	h (mm)	l (mm)		No.
Steel, stainless	6	M4	8	3.0	15	100	**3 842 536 673**
Steel, galvanized	8	M5	12	4.8	24	100	**3 842 536 675**
	10	M5	14	5.3	30	100	**3 842 536 676**

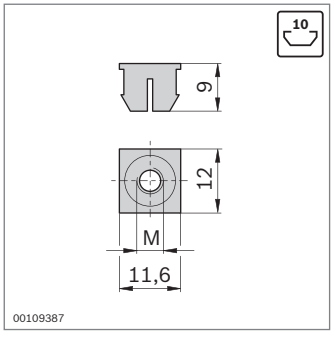


Straddling nut



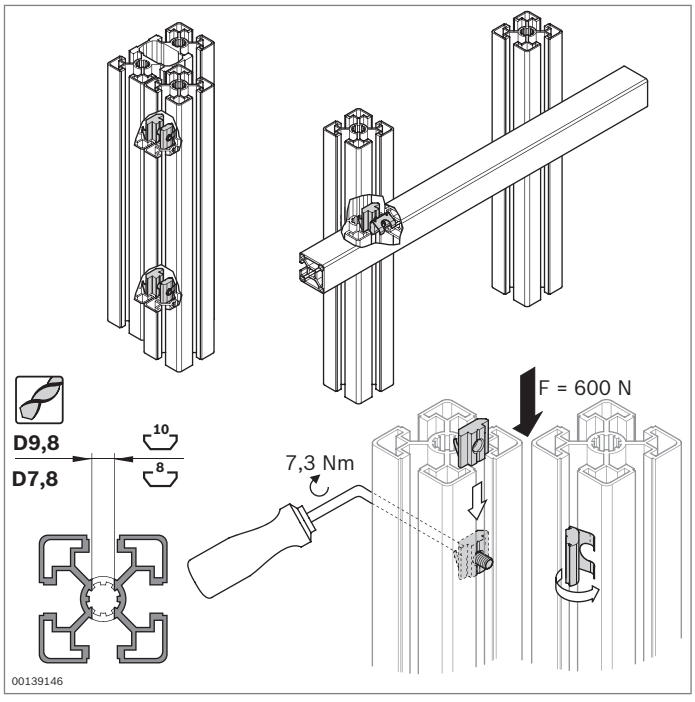
- For attaching light accessories such as cable fasteners or rings
- Easy assembly by clipping into the profile groove
- Profile finishing: not required

Required accessories:
Countersunk screw



Straddling nut	Slot	M		No.
	10	M4	100	**3 842 111 987**
		M5	100	**3 842 111 988**
		M6	100	**3 842 111 989**

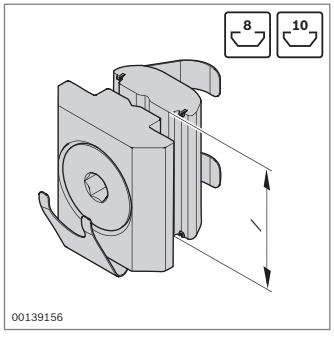
Material: PA, black

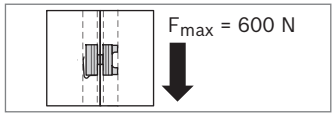


Parallel connector



- For a gap-free connection between two strut profiles, parallel to the axis or at any angle
- Parallel connector consisting of two sliding blocks with welded springs for simple assembly
- Attractive interior connection, e.g. for material shelves
- Connection possible in any position
- Transferrable displacement force per parallel connector: 600 N
- Profile finishing: through hole

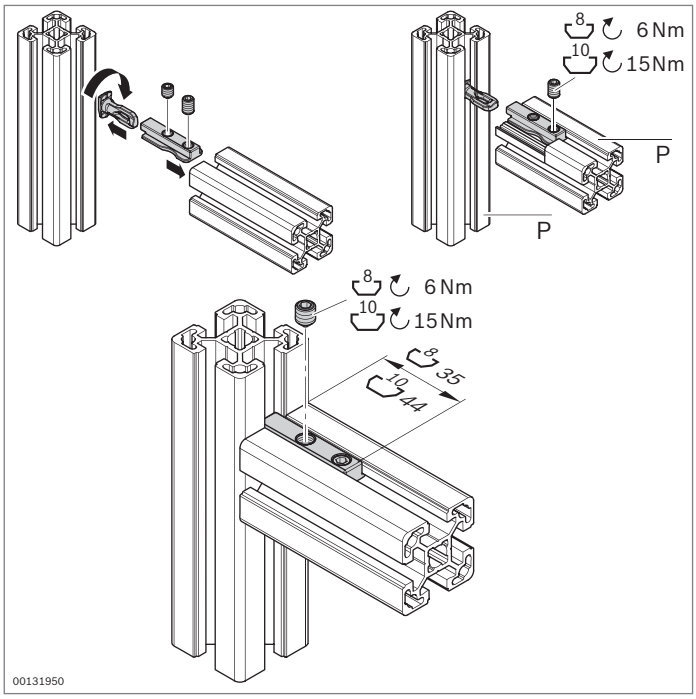




Parallel connector	**Slot**	**l** (mm)		**No.**
	8	16	10	**3 842 542 737**
	10	20	10	**3 842 542 736**

Material: Sliding block: steel, galvanized, chromated transparent
Spring: spring steel, stainless

Scope of delivery: Sliding block with spring, swivel-in sliding block with spring, countersunk screw M5



Quick connector

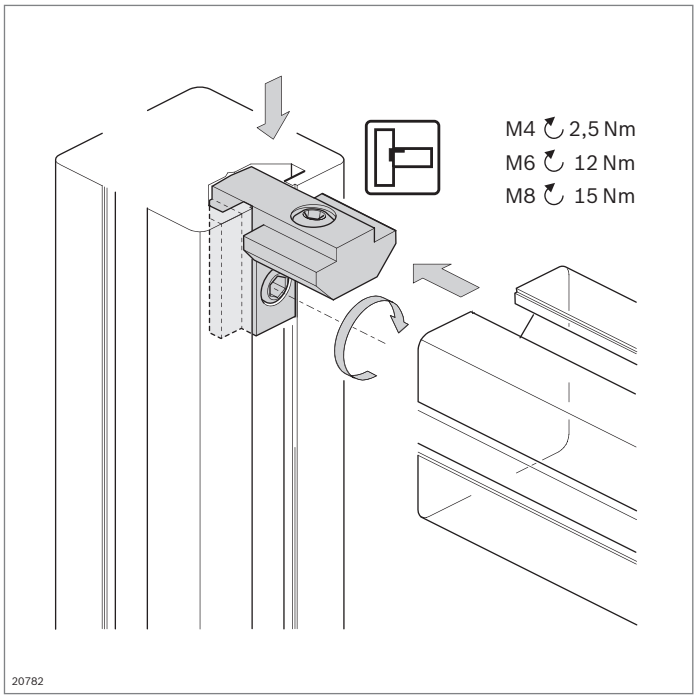
- Tensioning connector for fast assembly
- The connector can slide into the slot
- Easily accessible screws
- Three slots are left free for mounting surface elements
- Profile finishing: not required

Technical data (p. 19-8)

P	F_{max}	M_{max}	M_{max}
30x...	1000 N	35 Nm	15 Nm
45x... L	3500 N	110 Nm	30 Nm
40x..., 45x..., 50x...	3500 N	110 Nm	30 Nm
60x...	3500 N	195 Nm	60 Nm

Quick connector	Slot	P	ESD		No.
8	8	30x..	ESD	10	**3 842 538 489**
10L	10	45x.. L	ESD	10	**3 842 538 491**
10	10	40x.., 45x.., 50x.., 60x..	ESD	10	**3 842 538 490**

Material: Steel, transparent passivated

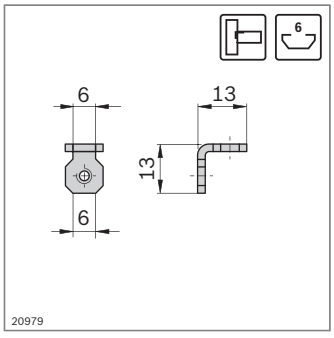


Inner bracket



- For elegant, easy-to-assemble profile connections
- Especially suitable for constructing door frames, protective grilles, or partition walls
- The inner bracket, 6 mm slot, can also be used as an inner bracket R, 6 mm slot
- Profile finishing: not required

Technical data (p. 19-8)



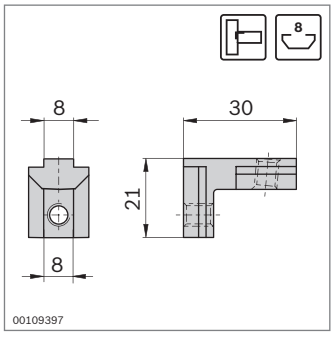
FS1

DIN 915
M4x6

Inner bracket	Slot	ESD		No.	FS
	6/6		10	**3 842 535 574**	2xFS1

Material: Sheet steel, galvanized
Fastening material: steel, galvanized, chromated transparent

Scope of delivery: Incl. fastening material (FS)



Slot	F_{max}	M_{max}
8/8	2200 N	50 Nm

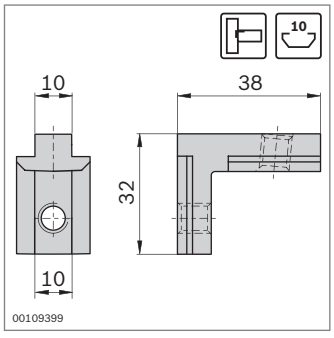
FS2

DIN 913
M6x8

Inner bracket	Slot	ESD		No.	FS
	8/8		10	**3 842 535 578**	2xFS2

Material: Cast steel, galvanized, transparent passivated
Fastening material: steel, galvanized, chromated transparent

Scope of delivery: Incl. fastening material (FS)



Slot	F_{max}	M_{max}
10/10	2800 N	100 Nm

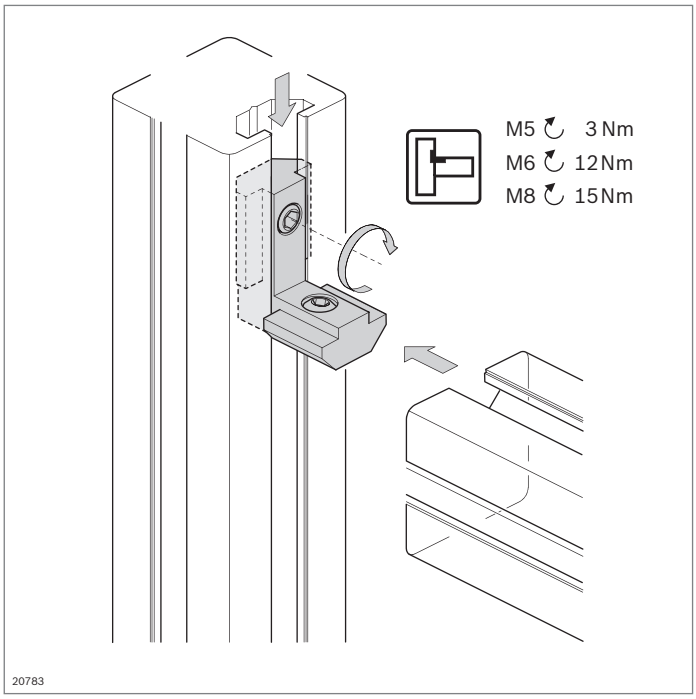
FS3

DIN 913
M8x12

Inner bracket	Slot	ESD		No.	FS
	10/10		10	**3 842 535 572**	2xFS3

Material: Cast steel, galvanized, transparent passivated
Fastening material: steel, galvanized, chromated transparent

Scope of delivery: Incl. fastening material (FS)

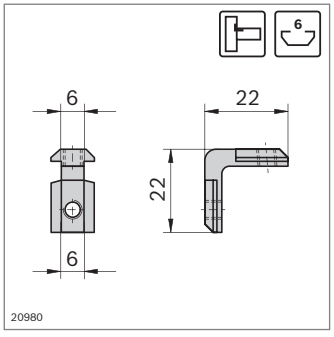


Inner bracket R



- For elegant, easy-to-assemble profile connections
- Especially suitable for constructing door frames, protective grilles, or partition walls
- Profile finishing: not required

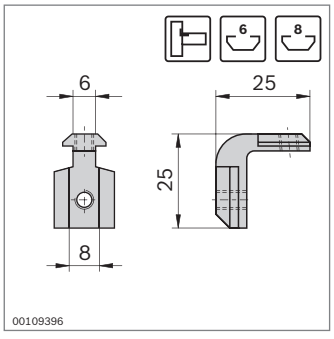
Technical data (p. 19-8)



Slot	F_{max}	M_{max}
6/6	600 N	10 Nm

FS1
DIN 913 M5x5

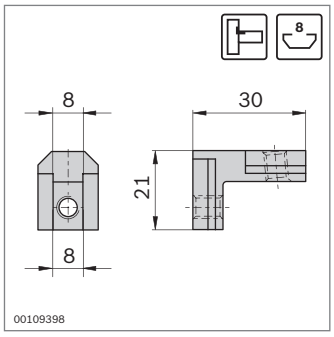
Inner bracket R	Slot	ESD		No.	FS
	6/6	ESD	10	**3 842 535 575**	2xFS1
Material:	Cast steel, galvanized, transparent passivated Fastening material: steel, galvanized, chromated transparent				
Scope of delivery:	Incl. fastening material (FS)				



Slot	F_{max}	M_{max}
6/8	600 N	10 Nm

FS1
DIN 913 M5x5

Inner bracket R	Slot	ESD		No.	FS
	6/8	ESD	10	**3 842 535 573**	2xFS1
Material:	Cast steel, galvanized, transparent passivated Fastening material: steel, galvanized, chromated transparent				
Scope of delivery:	Incl. fastening material (FS)				



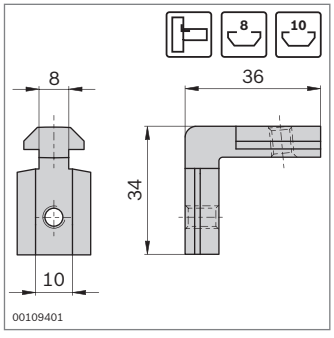
Slot	F_{max}	M_{max}
8/8	2500 N	50 Nm

FS2
DIN 913
M6x8

Inner bracket R	Slot	ESD		No.	FS
	8/8		10	**3 842 535 577**	2xFS2

Material: Cast steel, galvanized, transparent passivated
Fastening material: steel, galvanized, chromated transparent

Scope of delivery: Incl. fastening material (FS)



Slot	F_{max}	M_{max}
8/10	2500 N	50 Nm

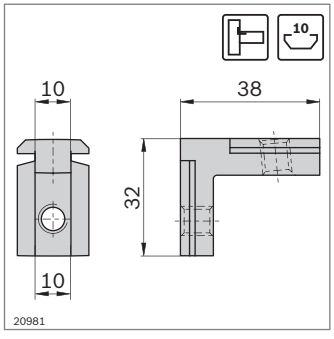
FS2
DIN 913
M6x8

FS3
DIN 913
M6x12

Inner bracket R	Slot	ESD		No.	FS
	8/10		10	**3 842 535 576**	FS2, FS3

Material: Cast steel, galvanized, transparent passivated
Fastening material: steel, galvanized, chromated transparent

Scope of delivery: Incl. fastening material (FS)



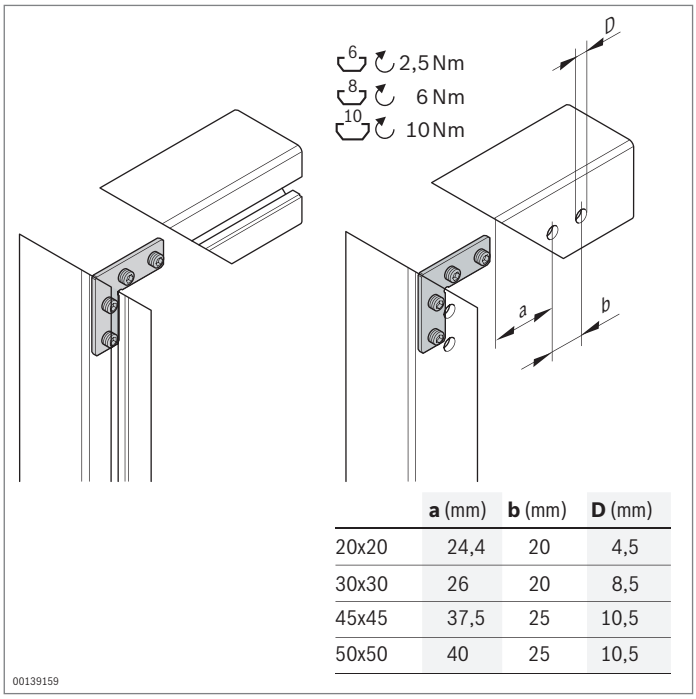
Slot	F_{max}	M_{max}
10/10	3000 N	100 Nm

FS4
DIN 913
M8x12

Inner bracket R	Slot	ESD		No.	FS
	10/10		10	**3 842 535 571**	2xFS4

Material: Cast steel, galvanized, transparent passivated
Fastening material: steel, galvanized, chromated transparent

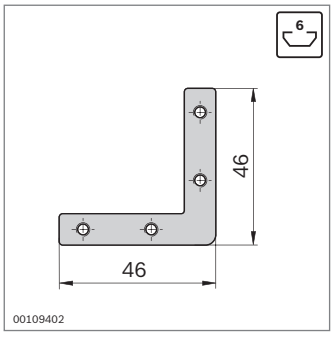
Scope of delivery: Incl. fastening material (FS)



	a (mm)	**b** (mm)	**D** (mm)
20x20	24,4	20	4,5
30x30	26	20	8,5
45x45	37,5	25	10,5
50x50	40	25	10,5

Miter bracket

- For right-angled connections of miter-cut profiles
- Profile finishing with open profile slots: not required
- Profile finishing with closed profile slots: through holes for screwdrivers



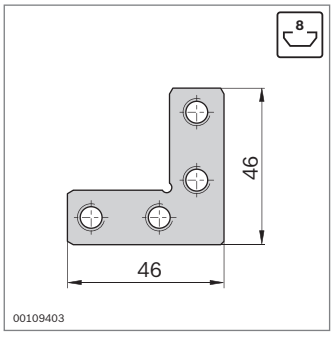
FS1

DIN 915
M4x5

Miter bracket	**Slot**	**ESD**		**No.**	**FS**
	6		20	**3 842 535 626**	4xFS1

Material: Steel, stainless
Fastening material: steel, galvanized

Scope of delivery: Incl. fastening material (FS)



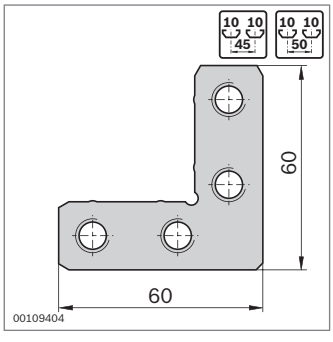
FS2

DIN 913
M8x8

Miter bracket	**Slot**	**ESD**		**No.**	**FS**
	8		20	**3 842 535 627**	4xFS2

Material: Steel, galvanized
Fastening material: steel, galvanized

Scope of delivery: Incl. fastening material (FS)



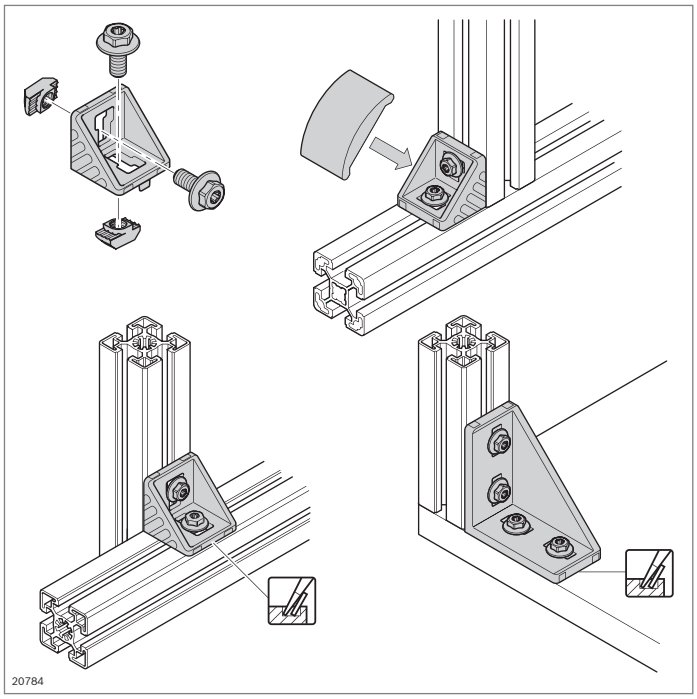
FS3

DIN 913
M10x10

Miter bracket	**Slot**	**ESD**		**No.**	**FS**
	10		20	**3 842 535 625**	4xFS3

Material: Steel, galvanized
Fastening material: steel, galvanized

Scope of delivery: Incl. fastening material (FS)



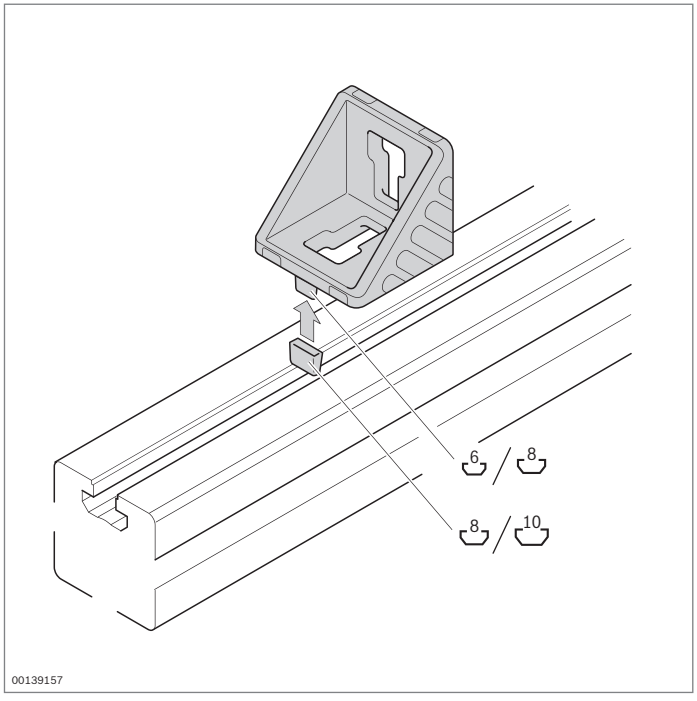
Bracket



designLINE

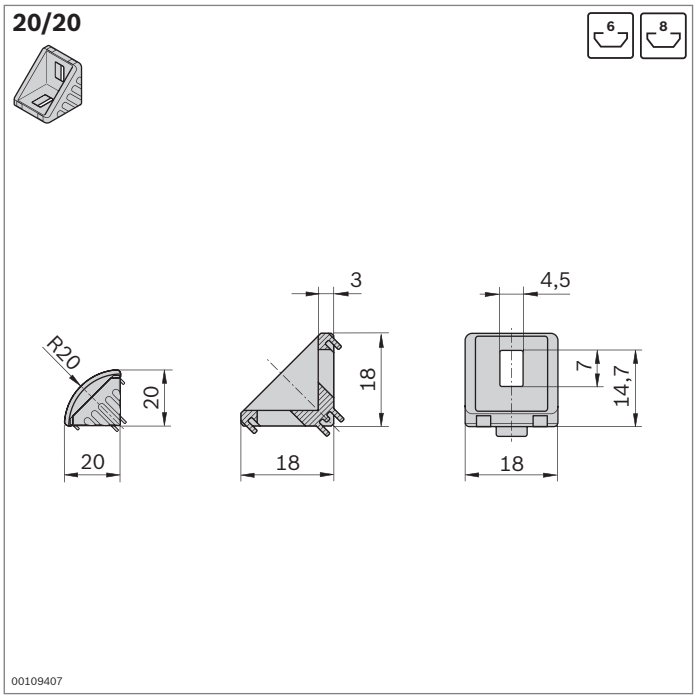
- Brackets with centering lugs for rapid, precise assembly with protection against turning
- Centering lugs can be easily broken off for assembly on plates or at right angles to the slot
- *designLINE* version with special silver paint (RAL 9006) for an attractive, high-quality design
- Intermediate element for positioning brackets in the next largest slot
- Offset sliding block for off-center positioning of the 45/45 bracket
- Cap to prevent the entry of dirt or contamination
- Profile finishing: not required

Technical data (p. 19-9)



Note: Collar screws enable an especially fast, easy assembly of the supporting brackets (p. 3-5).

20/20



20/20	Slot	ESD		No.	FS
Set (standard)	6/6		1	**3 842 523 511**	2xFS1
designLINE set	6/6		1	**3 842 538 707**	2xFS1
Bracket (standard)	6		100	**3 842 523 508**	
Cap			100	**3 842 523 513**	
Intermediate element for 8 mm slot	6/8		100	**3 842 523 516**	

Material: Bracket: diecast aluminum, vibratory ground
designLINE bracket: painted (RAL 9006)
Cap, intermediate element: PA, black
Fastening material: steel, galvanized

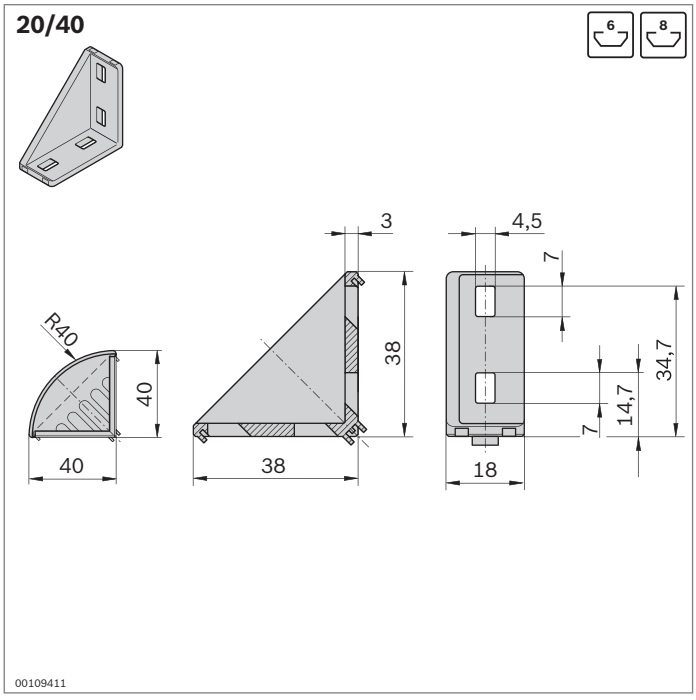
Scope of delivery: Set (standard): bracket, fastening material (FS)
designLINE set: *designLINE* bracket, cap, fastening material (FS)

Type	F_{max}	M_{max}	M_{max}	M_{max}
20/20	700 N	6 Nm	25 Nm	–

FS1



20/40



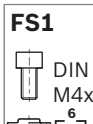
20/40	Slot	ESD		No.	FS
Set (standard)	6/6		1	**3 842 523 520**	4xFS1
designLINE set	6/6		1	**3 842 538 708**	4xFS1
Bracket (standard)	6		20	**3 842 523 517**	
Cap			20	**3 842 523 522**	
Intermediate element for 8 mm slot	6/8		100	**3 842 523 516**	

Material: Bracket: diecast aluminum, vibratory ground
designLINE bracket: painted (RAL 9006)
Cap, intermediate element: PA, black
Fastening material: steel, galvanized

Scope of delivery: Set (standard): bracket, fastening material (FS)
designLINE set: *designLINE* bracket, cap, fastening material (FS)

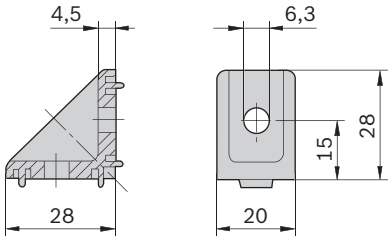
Type	F_{max}	M_{max}	M_{max}	M_{max}
20/40	1400 N	15 Nm	50 Nm	8 Nm

FS1



20x28





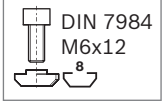
00125983

20x28	Slot	ESD		No.	FS
Set (standard)	8/8		1	**3 842 502 137**	2xFS1
Bracket (standard)	8		100	**3 842 501 587**	

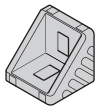
Material: Diecast zinc
Fastening material: steel, galvanized

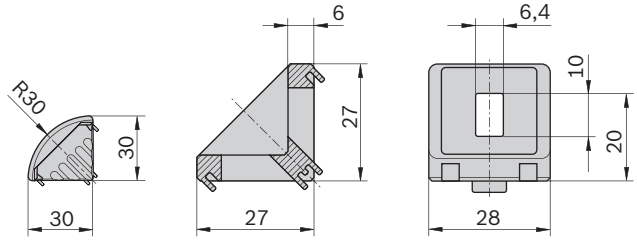
Scope of delivery: Set incl. fastening material (FS)

FS1



30/30





00109415

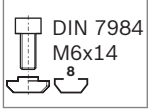
30/30	Slot	ESD		No.	FS
Set (standard)	8/8		1	**3 842 523 528**	2xFS2
	8/10		1	**3 842 523 530**	1xFS2, 2xFS3, 1xFS4
	10/10		1	**3 842 523 532**	4xFS3, 2xFS4
designLINE set	8/8		1	**3 842 538 709**	2xFS2
	8/10		1	**3 842 538 711**	1xFS2, 2xFS3, 1xFS4
	10/10		1	**3 842 538 710**	4xFS3, 2xFS4
Bracket (standard)	8		100	**3 842 523 525**	
Cap			100	**3 842 523 534**	
Intermediate element for 10 mm slot	8/10		100	**3 842 523 537**	

Material: Bracket: diecast aluminum, vibratory ground
designLINE bracket: painted (RAL 9006)
Cap, intermediate element: PA, black
Fastening material: steel, galvanized

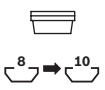
Scope of delivery: Set (standard): bracket, fastening material (FS)
designLINE set: *designLINE* bracket, cap, fastening material (FS)

Type	F_{max}	M_{max}	M_{max}	M_{max}
30/30	1250 N	25 Nm	75 Nm	–

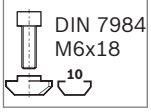
FS2



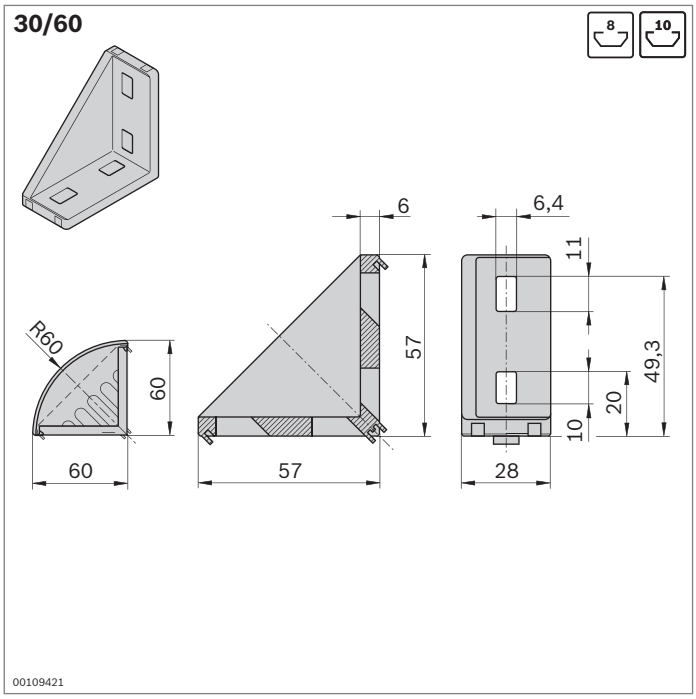
FS3



FS4



30/60



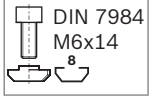
30/60	Slot	ESD		No.	FS
Set (standard)	8/8		1	**3 842 523 541**	4xFS2
designLINE set	8/8		1	**3 842 538 712**	4xFS2
Bracket (standard)	8		20	**3 842 523 538**	
Cap			20	**3 842 523 543**	
Intermediate element for 10 mm slot	8/10		100	**3 842 523 537**	

Material: Bracket: diecast aluminum, vibratory ground
designLINE bracket: painted (RAL 9006)
Cap, intermediate element: PA, black
Fastening material: steel, galvanized

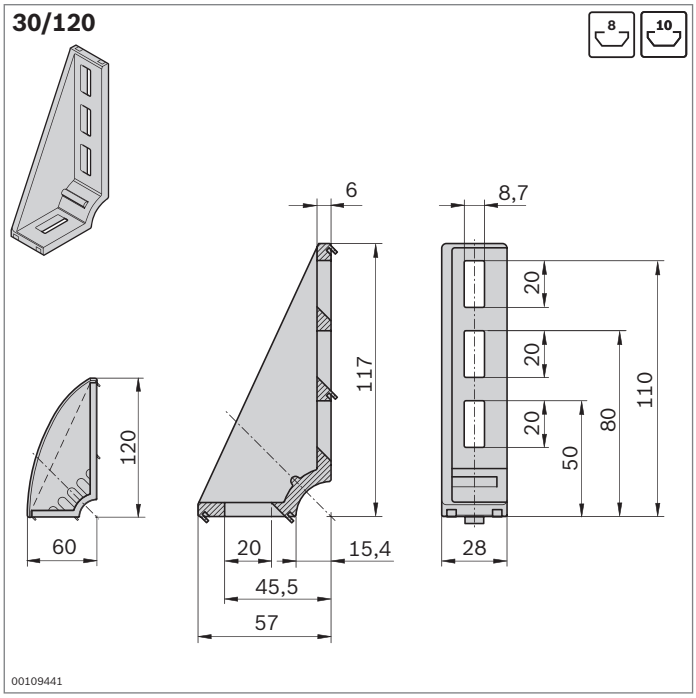
Scope of delivery: Set (standard): bracket, fastening material (FS)
designLINE set: *designLINE* bracket, cap, fastening material (FS)

Type	Fmax	Mmax	Mmax	Mmax
30/60	2500 N	100 Nm	170 Nm	25 Nm

FS2



30/120



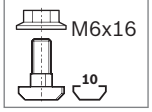
30/120	Slot	ESD		No.	FS
designLINE set	8/8		1	**3 842 538 748**	2xFS6
Bracket (standard)	8		20	**3 842 523 587**	
Cap			20	**3 842 523 589**	
Intermediate element for 10 mm slot	8/10		100	**3 842 523 537**	

Material: Bracket: diecast aluminum, vibratory ground
designLINE bracket: painted (RAL 9006)
Cap, intermediate element: PA, black
Fastening material: steel, galvanized

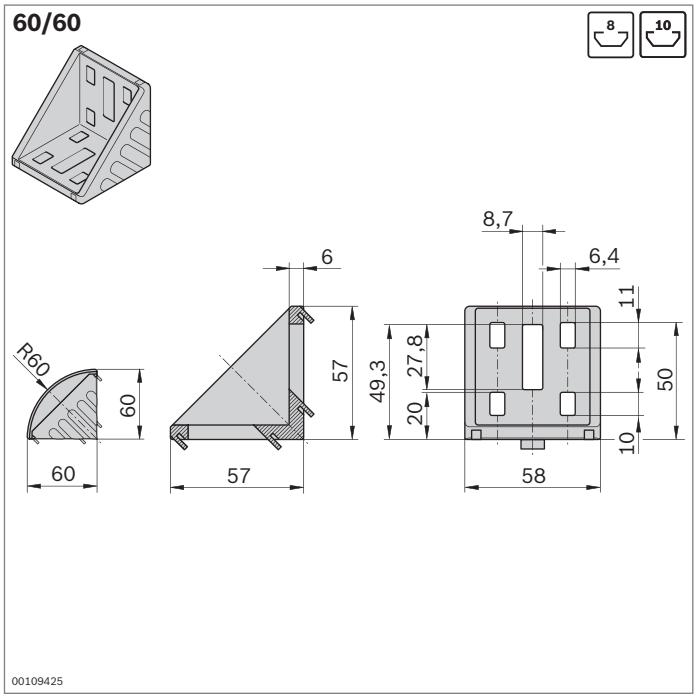
Scope of delivery: *designLINE* set: *designLINE* bracket, cap, fastening material (FS)

Type	Fmax	Mmax	Mmax
30/120	3750 N	100 Nm	47 Nm

FS6



60/60



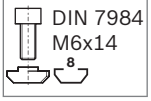
60/60	Slot	ESD		No.	FS
Set (standard)	8/8		1	**3 842 523 549**	8xFS2
	8/10		1	**3 842 523 551**	4xFS2, 1xFS5
	10/10		1	**3 842 523 553**	2xFS5
designLINE set	8/8		1	**3 842 538 713**	8xFS2
	8/10		1	**3 842 538 714**	4xFS2, 1xFS5
	10/10		1	**3 842 538 715**	2xFS5
Bracket (standard)	8		20	**3 842 523 546**	
Cap			20	**3 842 523 555**	
Intermediate element for 10 mm slot	10		100	**3 842 523 537**	

Material: Bracket: diecast aluminum, vibratory ground
designLINE bracket: painted (RAL 9006)
Cap, intermediate element: PA, black
Fastening material: steel, galvanized

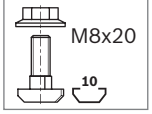
Scope of delivery: Set (standard): bracket, fastening material (FS)
designLINE set: *designLINE* bracket, cap, fastening material (FS)

Type	Slot	F_{max}	M_{max}	M_{max}	M_{max}
60/60	8	5000 N	320 Nm	370 Nm	110 Nm
	10	3000 N	125 Nm	150 Nm	–

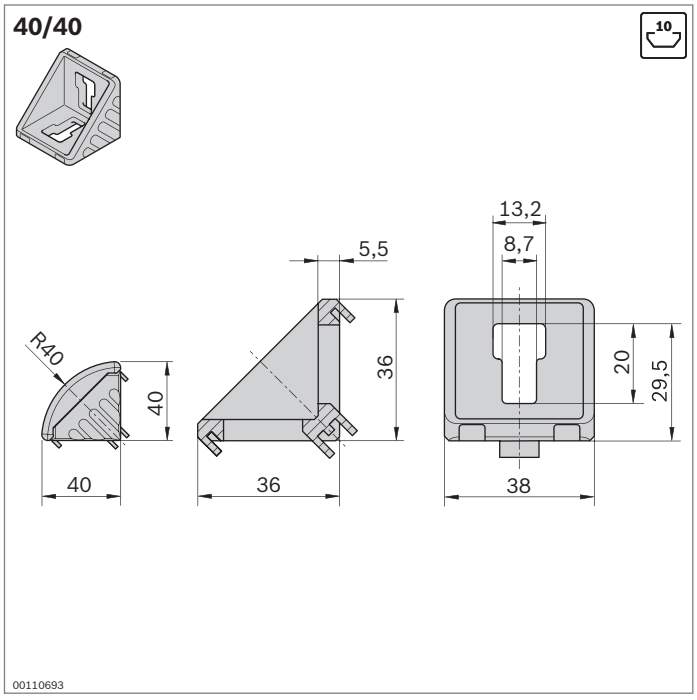
FS2



FS5



40/40



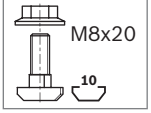
40/40	Slot	ESD		No.	FS
Set (standard)	10/10		1	**3 842 529 383**	2xFS5
designLINE set	10/10		1	**3 842 538 716**	2xFS5
Bracket (standard)	10		100	**3 842 528 967**	
Cap			100	**3 842 529 007**	

Material: Bracket: diecast aluminum, vibratory ground
designLINE bracket: painted (RAL 9006)
Cap: PA, black
Fastening material: steel, galvanized

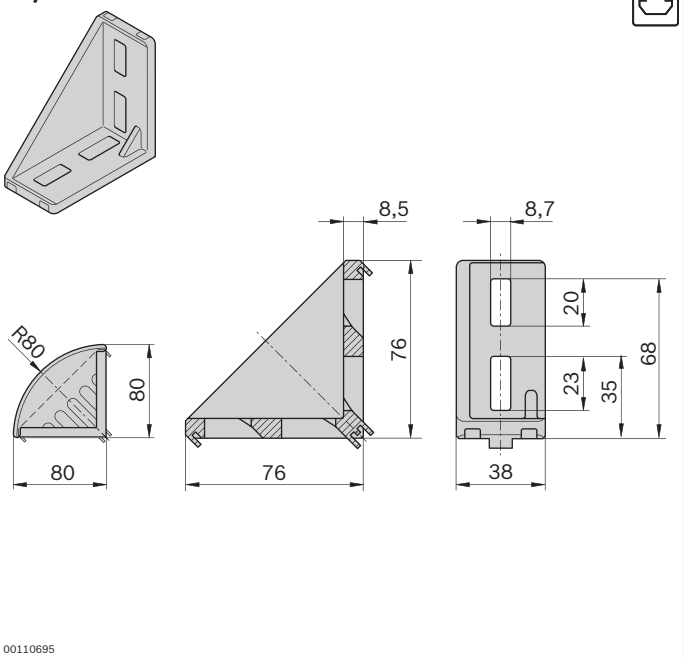
Scope of delivery: Set (standard): bracket, fastening material (FS)
designLINE set: *designLINE* bracket, cap, fastening material (FS)

Type	F_{max}	M_{max}	M_{max}	M_{max}
40/40	3000 N	55 Nm	145 Nm	35 Nm

FS5



40/80



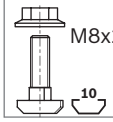
40/80	Slot	ESD		No.	FS
Set (standard)	10/10		1	**3 842 529 386**	4xFS7
designLINE set	10/10		1	**3 842 538 717**	4xFS7
Bracket (standard)	10		20	**3 842 529 005**	
Cap			20	**3 842 529 008**	

Material: Bracket: diecast aluminum, vibratory ground
designLINE bracket: painted (RAL 9006)
Cap: PA, black
Fastening material: steel, galvanized

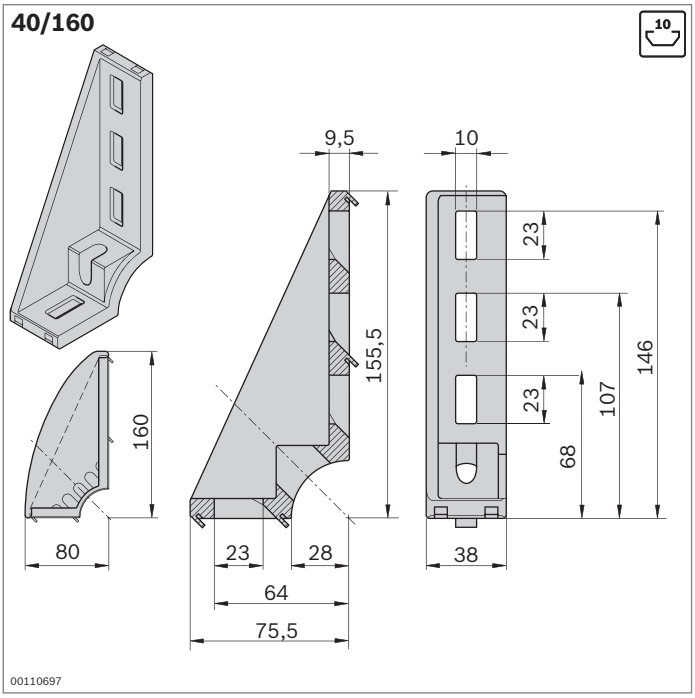
Scope of delivery: Set (standard): bracket, fastening material (FS)
designLINE set: *designLINE* bracket, cap, fastening material (FS)

Type	F_{max}	M_{max}	M_{max}	M_{max}
40/80	6000 N	180 Nm	400 Nm	60 Nm

FS7



40/160



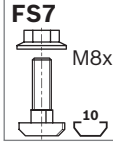
40/160	Slot	ESD		No.	FS
designLINE set	10/10		1	**3 842 538 749**	2xFS7
Bracket (standard)	10		20	**3 842 529 006**	
Cap			20	**3 842 529 009**	

Material: Bracket: diecast aluminum, vibratory ground
designLINE bracket: painted (RAL 9006)
Cap: PA, black
Fastening material: steel, galvanized

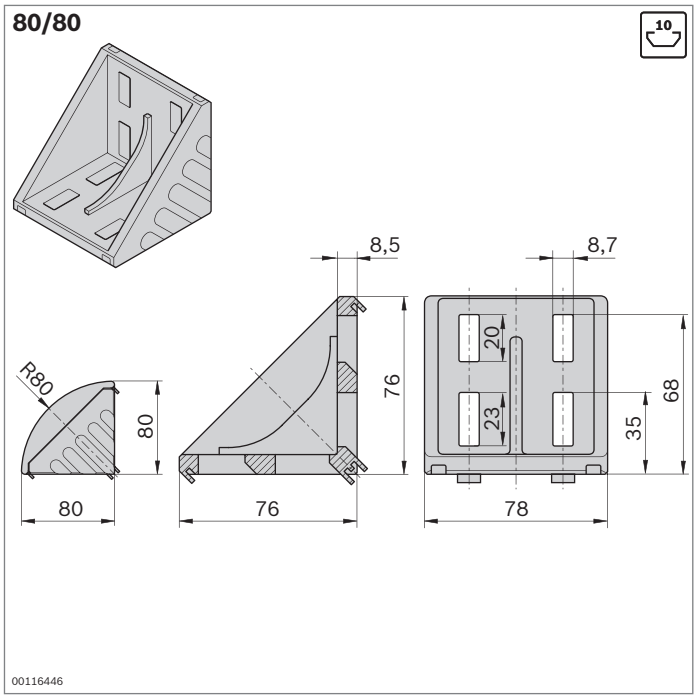
Scope of delivery: *designLINE* set: *designLINE* bracket, cap, fastening material (FS)

Type	F_{max}	M_{max}	M_{max}
40/160	9000 N	250 Nm	60 Nm

FS7



80/80

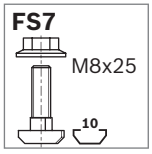


80/80	Slot	ESD		No.	FS
Set (standard)	10/10		1	**3 842 530 360**	8xFS7
designLINE set	10/10		1	**3 842 538 718**	8xFS7
Bracket (standard)	10		20	**3 842 530 231**	
Cap			20	**3 842 530 232**	

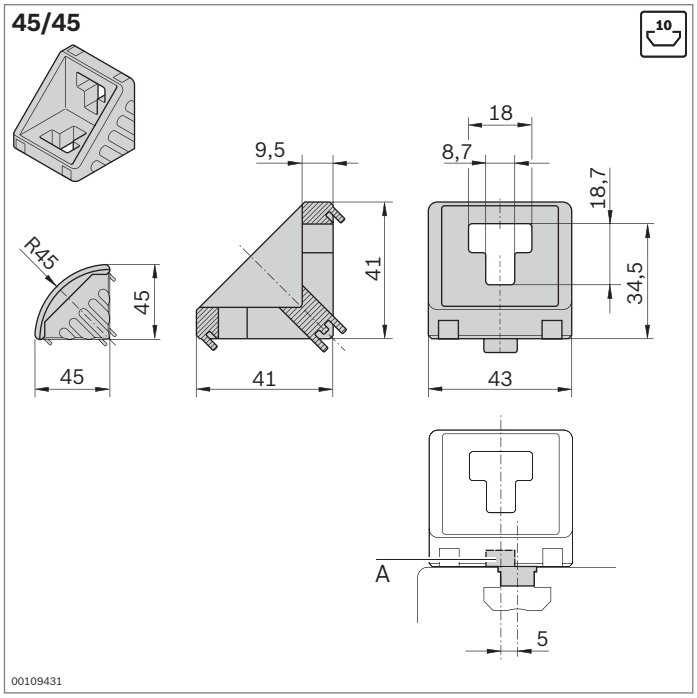
Material: Bracket: diecast aluminum, vibratory ground
designLINE bracket: painted (RAL 9006)
Cap: PA, black
Fastening material: steel, galvanized

Scope of delivery: Set (standard): bracket, fastening material (FS)
designLINE set: *designLINE* bracket, cap, fastening material (FS)

Type	F_{max}	M_{max}	M_{max}	M_{max}
80/80	14000 N	500 Nm	1000 Nm	400 Nm



45/45

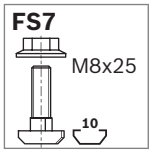


45/45	Slot	ESD		No.	FS
Set (standard)	10/10		1	**3 842 523 561**	2xFS7
designLINE set	10/10		1	**3 842 538 719**	2xFS7
Bracket (standard)	10		100	**3 842 523 558**	
Cap			100	**3 842 523 563**	
Sliding block, offset (**A**)	10		100	**3 842 523 593**	

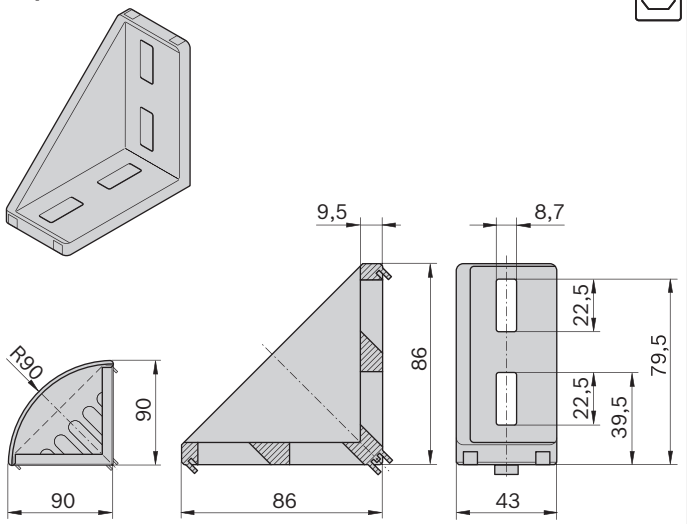
Material: Bracket: diecast aluminum, vibratory ground
designLINE bracket: painted (RAL 9006)
Cap, offset sliding block: PA, black
Fastening material: steel, galvanized

Scope of delivery: Set (standard): bracket, fastening material (FS)
designLINE set: *designLINE* bracket, cap, fastening material (FS)

Type	F_{max}	M_{max}	M_{max}	M_{max}
45/45	3000 N	60 Nm	160 Nm	–



45/90



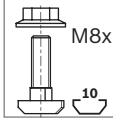
45/90	Slot	ESD		No.	FS
Set (standard)	10/10		1	**3 842 523 570**	4xFS7
designLINE set	10/10		1	**3 842 538 720**	4xFS7
Bracket (standard)	10		100	**3 842 523 567**	
Cap			100	**3 842 523 572**	

Material: Bracket: diecast aluminum, vibratory ground
designLINE bracket: painted (RAL 9006)
Cap: PA, black
Fastening material: steel, galvanized

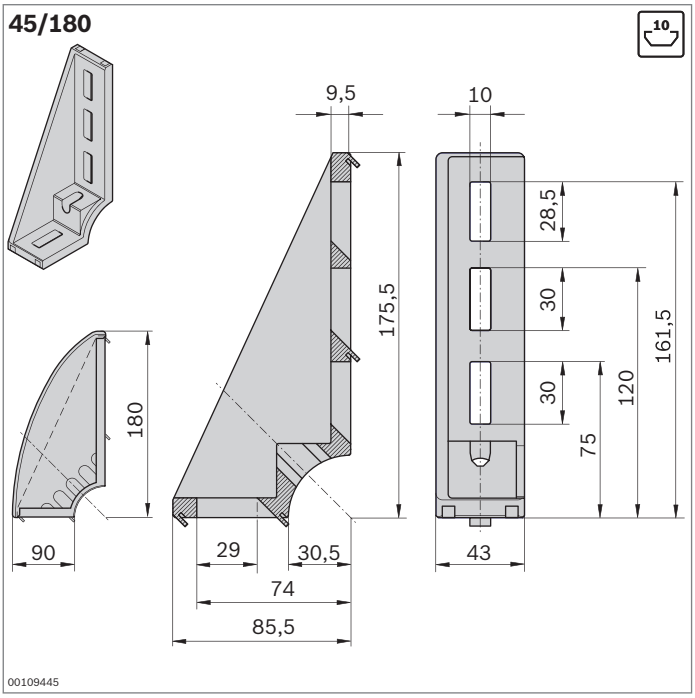
Scope of delivery: Set (standard): bracket, fastening material (FS)
designLINE set: *designLINE* bracket, cap, fastening material (FS)

Type	F_{max}	M_{max}	M_{max}	M_{max}
45/90	6000 N	180 Nm	400 Nm	60 Nm

FS7



45/180



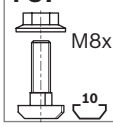
45/180	Slot	ESD		No.	FS
designLINE set	10/10		1	**3 842 538 750**	2xFS7
Bracket (standard)	10		20	**3 842 523 583**	
Cap			20	**3 842 523 585**	

Material: Bracket: diecast aluminum, vibratory ground
designLINE bracket: painted (RAL 9006)
Cap: PA, black
Fastening material: steel, galvanized

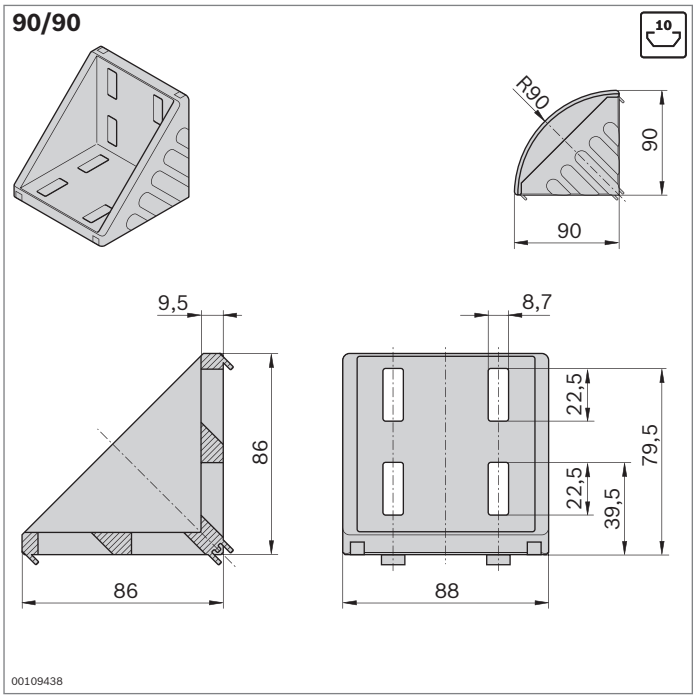
Scope of delivery: *designLINE* set: *designLINE* bracket, cap, fastening material (FS)

Type	F_{max}	M_{max}	M_{max}
45/180	9000 N	250 Nm	65 Nm

FS7



90/90



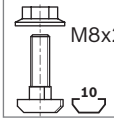
90/90	Slot	ESD		No.	FS
Set (standard)	10/10		1	**3 842 523 578**	8xFS7
designLINE set	10/10		1	**3 842 538 721**	8xFS7
Bracket (standard)	10		20	**3 842 523 575**	
Cap			20	**3 842 523 580**	

Material: Bracket: diecast aluminum, vibratory ground
designLINE bracket: painted (RAL 9006)
Cap: PA, black
Fastening material: steel, galvanized

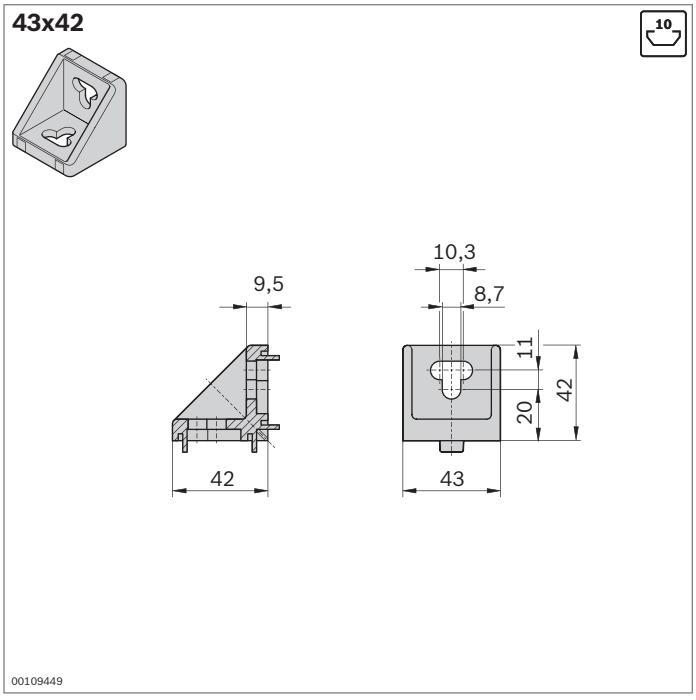
Scope of delivery: Set (standard): bracket, fastening material (FS)
designLINE set: *designLINE* bracket, cap, fastening material (FS)

Type	F_{max}	M_{max}	M_{max}	M_{max}
90/90	12000 N	370 Nm	800 Nm	200 Nm

FS7



43x42



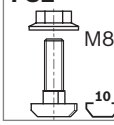
43x42	Slot	ESD		No.	FS
Set (standard)	10/10		1	**3 842 352 009**	2xFS2
Bracket (standard)	10		100	**3 842 348 526**	

Material: Bracket: die-cast aluminum
Fastening material: steel, galvanized

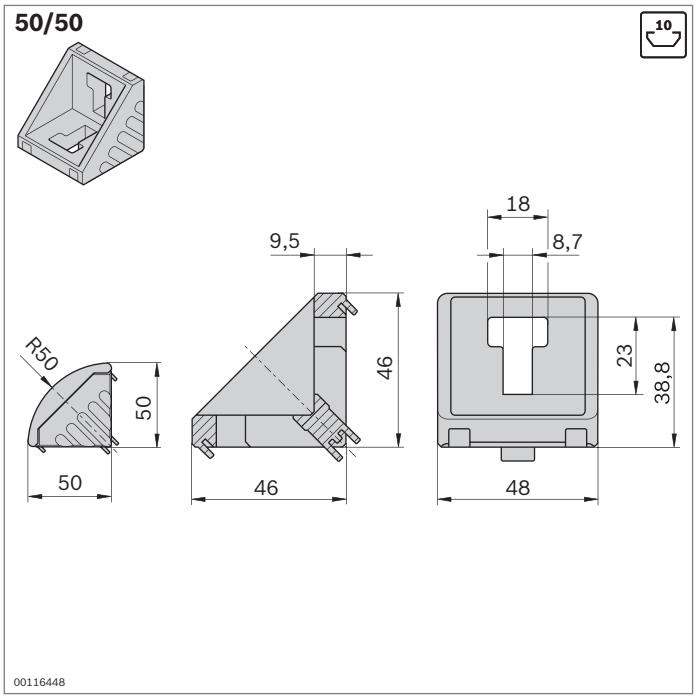
Scope of delivery: Set incl. fastening material (FS)

Type	F_{max}	M_{max}	M_{max}	M_{max}
43x42	2000 N	–	160 Nm	–

FS2



50/50



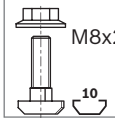
50/50	Slot	ESD		No.	FS
Set (standard)	10/10		1	**3 842 530 259**	2xFS7
Bracket (standard)	10		20	**3 842 530 381**	
Cap			20	**3 842 530 383**	

Material: Bracket: diecast aluminum, vibratory ground
Cap: PA, black
Fastening material: steel, galvanized

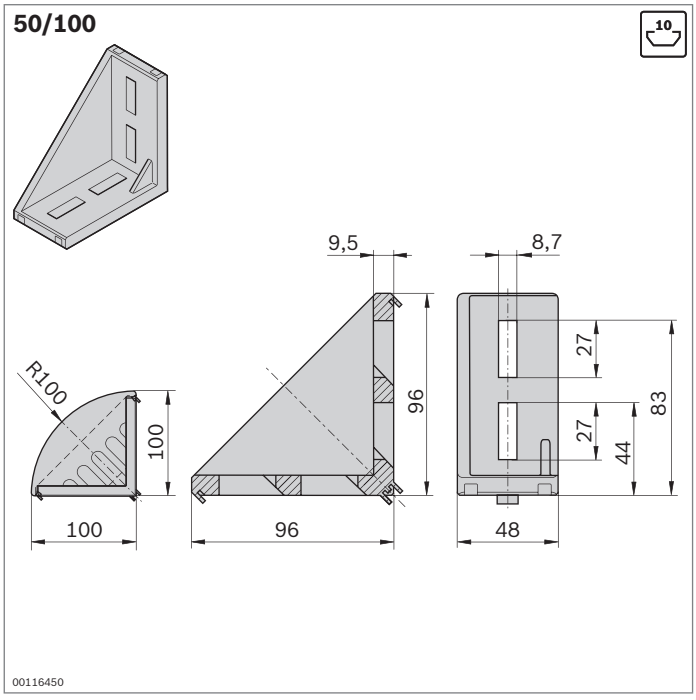
Scope of delivery: Set (standard): bracket, fastening material (FS)

Type	F_{max}	M_{max}	M_{max}	M_{max}
50/50	4000 N	125 Nm	250 Nm	38 Nm

FS7



50/100



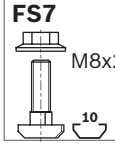
50/100	Slot	ESD		No.	FS
Set (standard)	10/10		1	**3 842 530 260**	4xFS7
Bracket (standard)	10		20	**3 842 530 382**	
Cap			20	**3 842 530 384**	

Material: Bracket: diecast aluminum, vibratory ground
Cap: PA, black
Fastening material: steel, galvanized

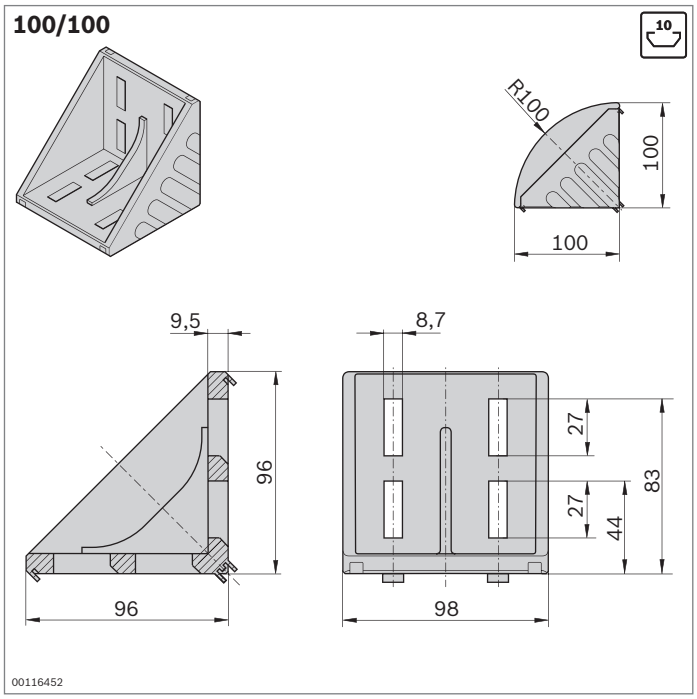
Scope of delivery: Set (standard): bracket, fastening material (FS)

Type	F_{max}	M_{max}	M_{max}	M_{max}
50/100	7500 N	300 Nm	600 Nm	73 Nm

FS7



100/100

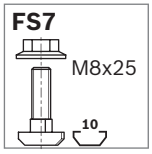


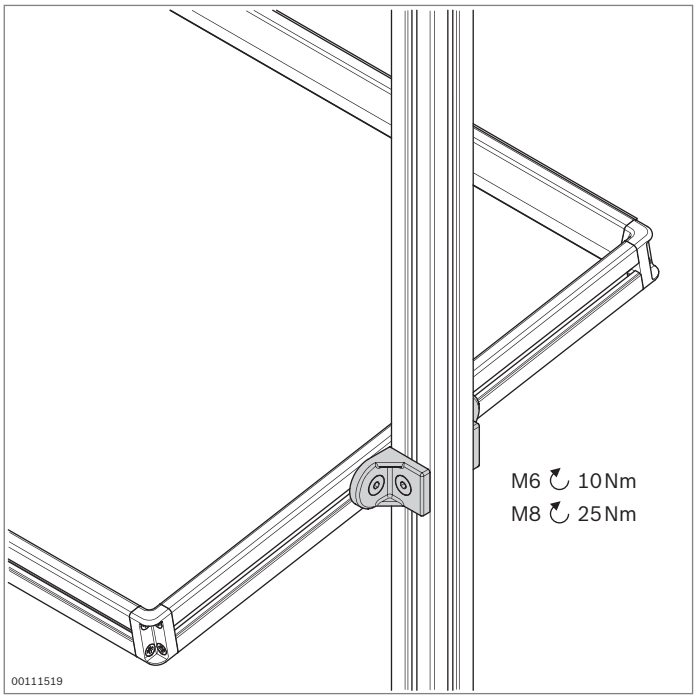
100/100	Slot	ESD		No.	FS
Set (standard)	10/10		1	**3 842 530 361**	8xFS7
Bracket (standard)	10		20	**3 842 530 460**	
Cap			20	**3 842 530 461**	

Material: Bracket: diecast aluminum, vibratory ground
Cap: PA, black
Fastening material: steel, galvanized

Scope of delivery: Set (standard): bracket, fastening material (FS)

Type	Fmax	Mmax	Mmax	Mmax
100/100	15000 N	550 Nm	1100 Nm	480 Nm

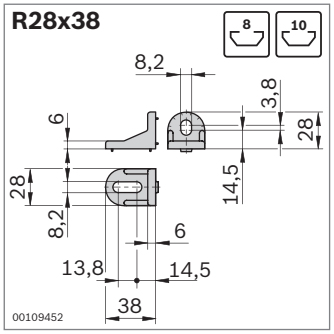


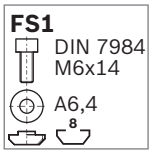


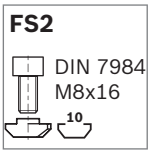
Bracket R

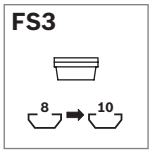
designLINE

- For connecting profiles at any angle
- No interfering edges thanks to rounded bracket
- Brackets with centering lugs for rapid, precise assembly with protection against turning
- Centering lugs can be easily broken off for assembly on plates or at right angles to the slot
- *designLINE* version with special silver paint (RAL 9006) for an attractive, high-quality design
- Profile finishing: not required





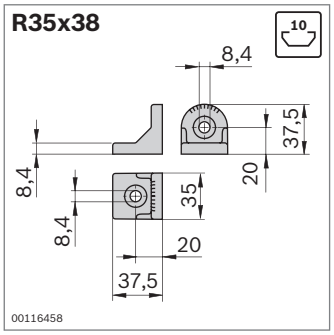


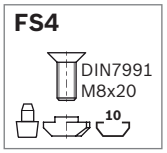


R28x38	Slot	ESD		No.	FS
Set (standard)	8/10		1	**3 842 515 547**	FS1, FS2, 2xFS3
	10/10		1	**3 842 521 580**	2xFS2, 4xFS3
designLINE set	8/10		1	**3 842 538 703**	FS1, FS2, 2xFS3
	10/10		1	**3 842 538 704**	2xFS2, 4xFS3
Bracket (standard)	8, 10		100	**3 842 515 473**	

Material: Bracket: diecast zinc
designLINE bracket: painted (RAL 9006)
Intermediate element: PA, black
Fastening material: steel, galvanized

Scope of delivery: Set (standard): bracket, fastening material (FS)
designLINE set: *designLINE* bracket, fastening material (FS)

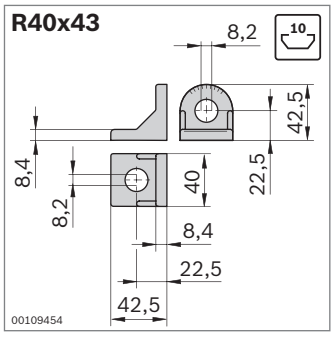


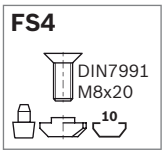


R35x38	Slot	ESD		No.	FS
Set (standard)	10/10		1	**3 842 532 274**	2xFS4
designLINE set	10/10		1	**3 842 538 705**	2xFS4
Bracket (standard)	10		100	**3 842 529 020**	

Material: Bracket: die-cast aluminum
designLINE bracket: painted (RAL 9006)
Centering bolts: PA6, black
Fastening material: steel, galvanized

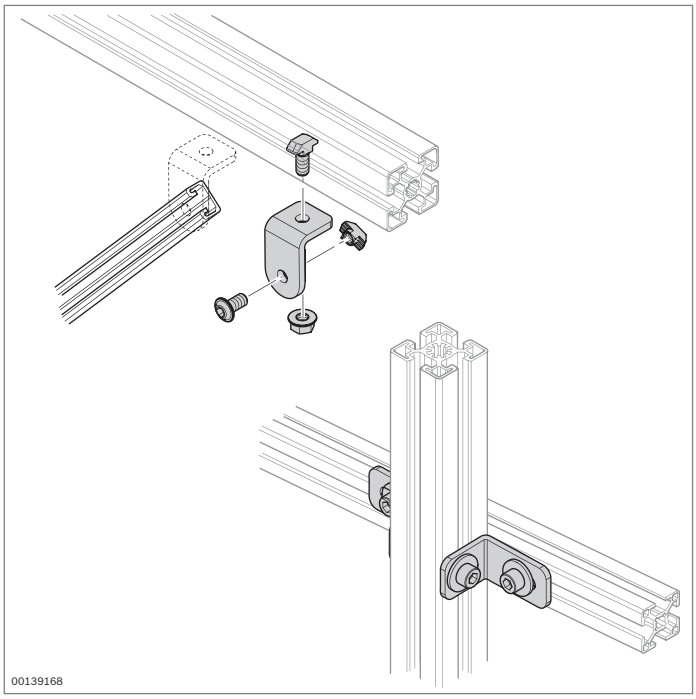
Scope of delivery: Set (standard): bracket, fastening material (FS)
designLINE set: *designLINE* bracket, fastening material (FS)





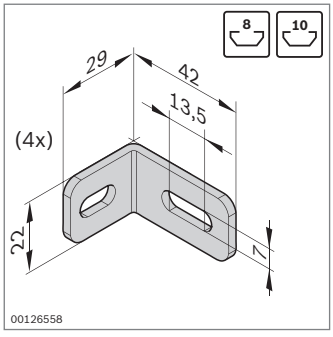
R40x43	Slot	ESD		No.	FS
Set (standard)	10/10		1	**3 842 518 424**	2xFS4
designLINE set	10/10		1	**3 842 538 706**	2xFS4
Bracket (standard)	10		100	**3 842 504 760**	

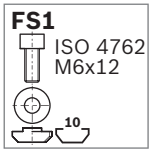
Material:	Bracket: diecast zinc *designLINE* bracket: painted (RAL 9006) Centering bolts: PA6, black Fastening material: steel, galvanized
Scope of delivery:	Set (standard): bracket, fastening material (FS) *designLINE* set: *designLINE* bracket, fastening material (FS)

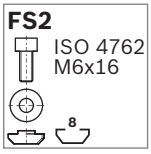


Steel bracket

- Steel bracket without centering lugs for fastening at any angle
- Profile finishing: not required



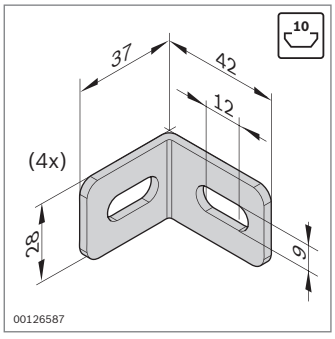


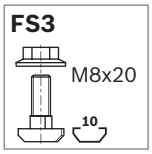


Bracket set	Slot	ESD		No.	FS
	8/10		Set	**3 842 537 862**	4xFS1, 4xFS2

Material: Steel, galvanized
Fastening material: steel, galvanized

Scope of delivery: 4x bracket, fastening material (FS)

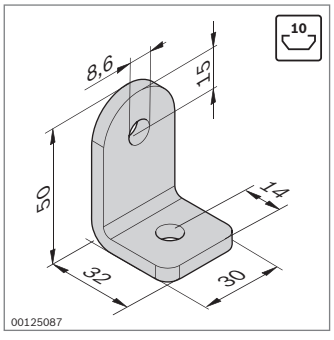


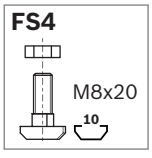


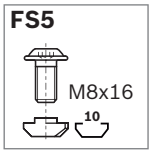
Bracket set	Slot	ESD		No.	FS
	10/10		Set	**3 842 537 861**	8xFS3

Material: Steel, galvanized
Fastening material: steel, galvanized

Scope of delivery: 4x bracket, fastening material (FS)



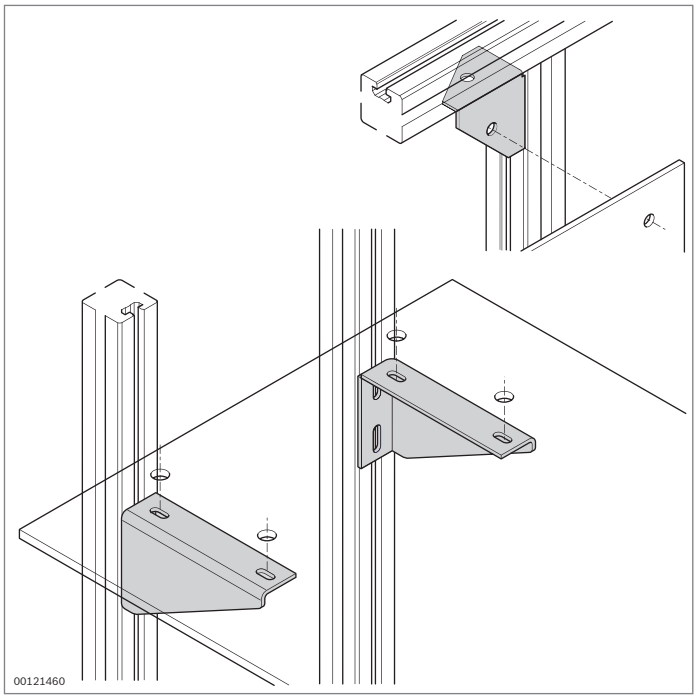




Bracket set	Slot	ESD		No.	FS
	10/10		20	**3 842 536 729**	FS4, FS5

Material: Steel, galvanized
Fastening material: steel, galvanized

Scope of delivery: Incl. fastening material (FS)



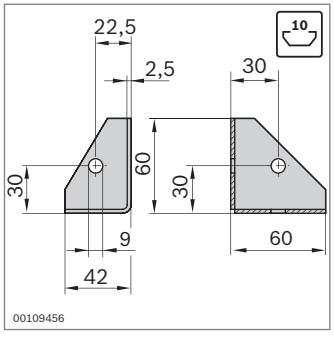
Metal bracket
Supporting bracket

Metal bracket

- Metal bracket for right-angled profile connections
- Screw fitting of surface elements in the stiffening fin bore
- Profile finishing: not required

Supporting bracket

- Supporting bracket for fastening surface elements to profiles, e.g. for shelves
- Profile finishing: not required

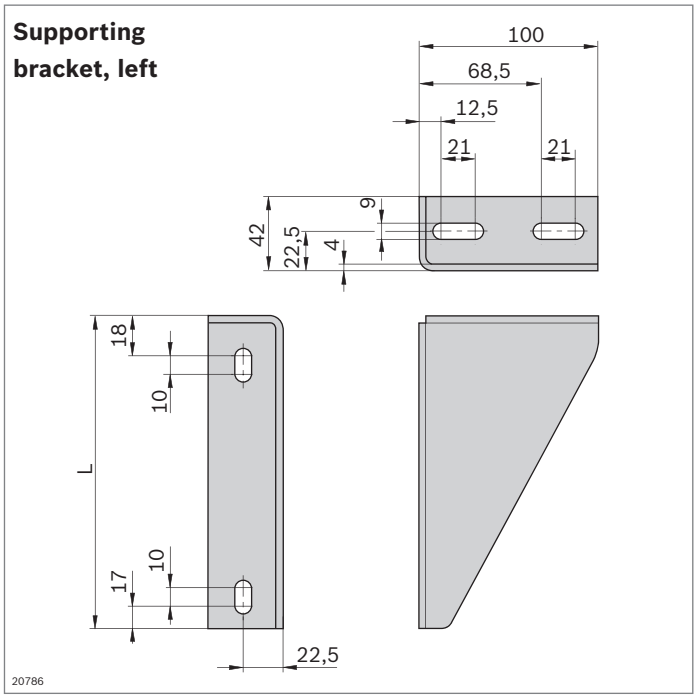


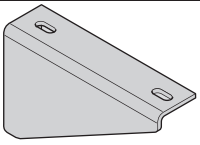
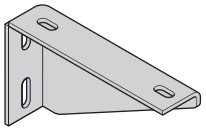
Metal bracket	ESD		No.
		20	**3 842 146 813**

Material: Sheet steel, galvanized

Required accessories:

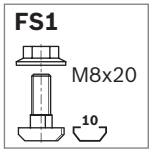
- T-bolt M8x20, 10 mm slot, **3 842 528 715** (p. 3-6)
- Flange nut M8, **3 842 345 081** (p. 3-6)

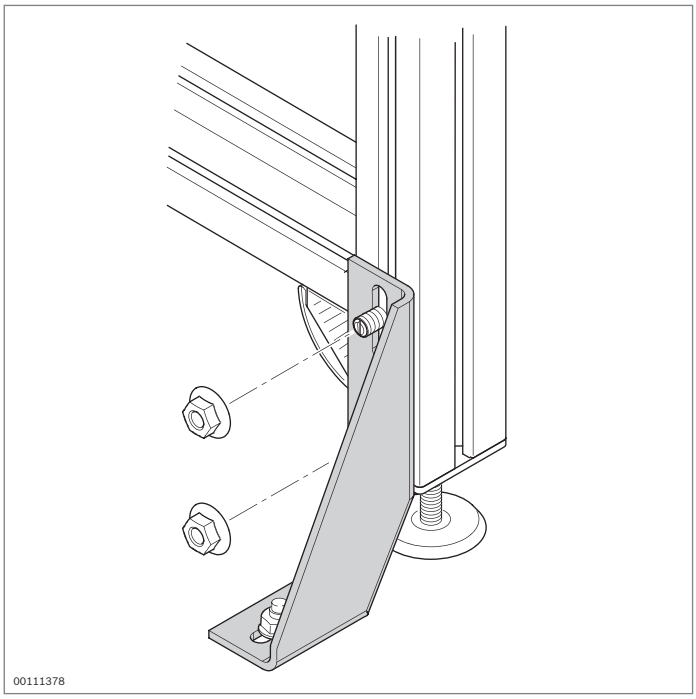


Supporting bracket	L (mm)	ESD	No.	FS
Left 	255		**3 842 536 119**	2xFS1
	335		**3 842 536 121**	2xFS1
	415		**3 842 536 123**	2xFS1
	495		**3 842 536 125**	2xFS1
Right 	255		**3 842 536 120**	2xFS1
	335		**3 842 536 122**	2xFS1
	415		**3 842 536 124**	2xFS1
	495		**3 842 536 126**	2xFS1

Material: Sheet steel, powder-coated, RAL 7037
Fastening material: steel, galvanized

Scope of delivery: Incl. fastening material (FS)





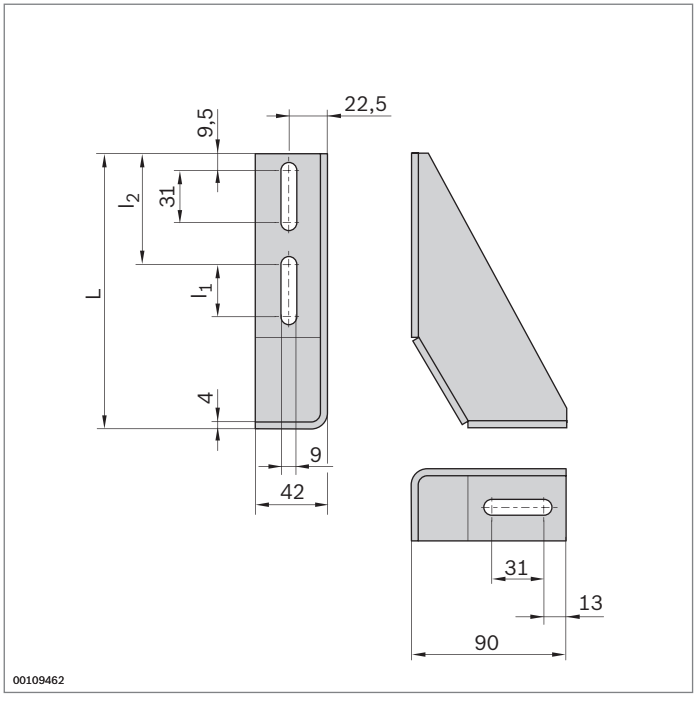
Foundation bracket

10

- Foundation bracket for securing frames to the floor
- The hole for the floor dowel can be bored without removing the foundation bracket
- Profile finishing: not required

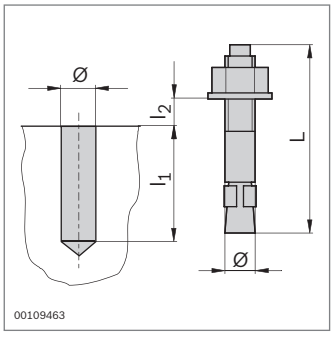
Required accessories:

- T-bolt M8x20, 10 mm slot, **3 842 528 715** (p. 3-6)
- Flange nut M8, **3 842 345 081** (p. 3-6)
- Floor dowel



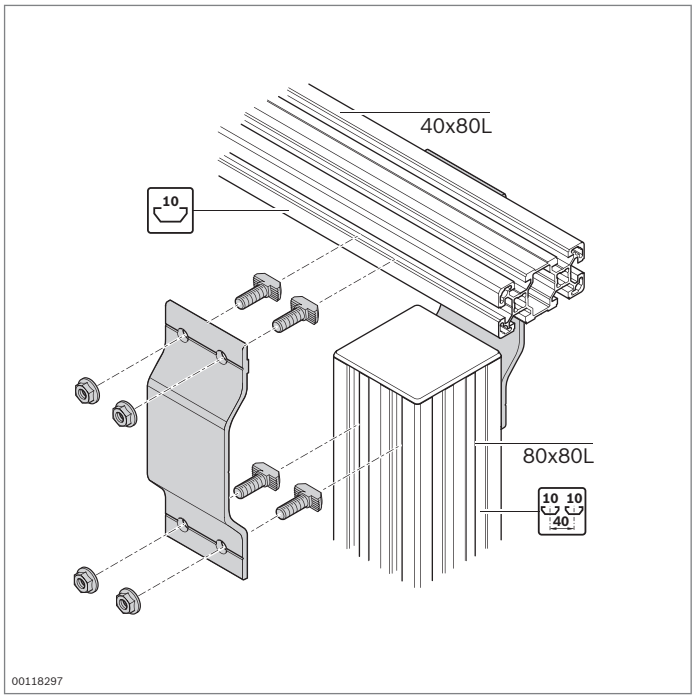
Foundation bracket	L (mm)	l_1 (mm)	l_2 (mm)		No.
	160	31	64.5	20	**3 842 146 815**
	210	91	54.5	20	**3 842 146 848**

Material: Steel, galvanized, chromated transparent

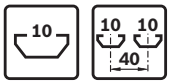


Floor dowel	ø	L (mm)	l_1 (mm)	$l_{2\,max}$ (mm)		No.
	8	80	65	15	100	**3 842 526 560**

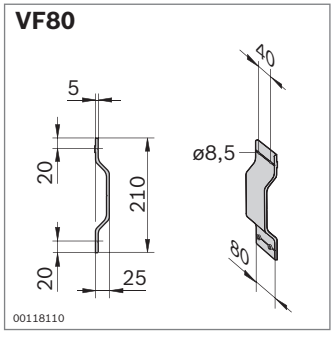
Material: Steel, galvanized

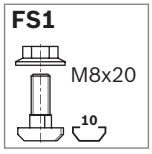


Holder

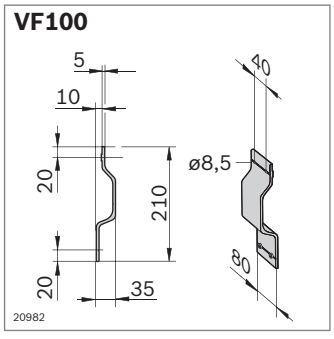


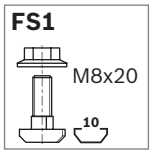
- For right-angled profile connections with defined spacing, e.g. for floor supports made of 80x80L profiles
- Longitudinal connection possible in all profiles with 10 mm slot
- Transverse connection possible with 40 mm slot spacing
- Profile finishing: not required



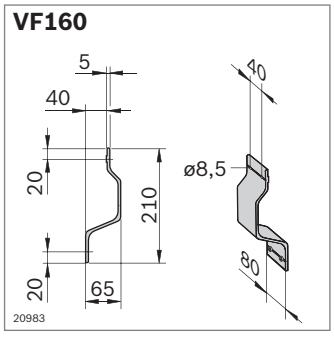


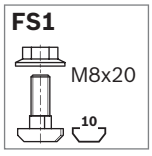
Holder		No.	FS
VF80	Set	**3 842 533 293**	8xFS1
Material:	Holder: aluminum, anodized, natural Fastening material: steel, galvanized		
Scope of delivery:	2x holder, fastening material (FS)		



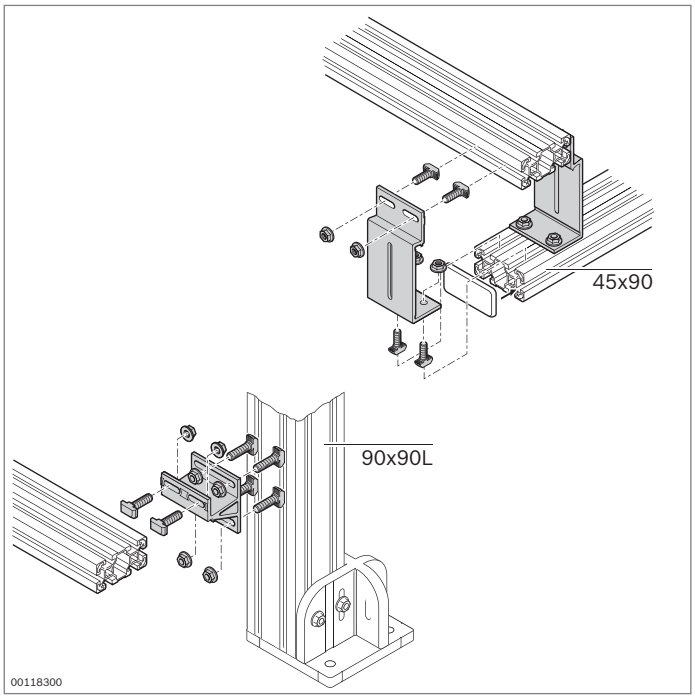


Holder		No.	FS
VF100	Set	**3 842 533 294**	8xFS1
Material:	Holder: aluminum, anodized, natural Fastening material: steel, galvanized		
Scope of delivery:	2x holder, fastening material (FS)		

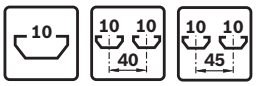




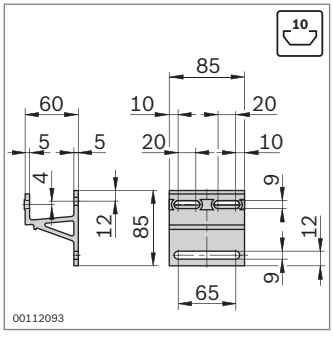
Holder		No.	FS
VF160	Set	**3 842 533 295**	8xFS1
Material:	Holder: aluminum, anodized, natural Fastening material: steel, galvanized		
Scope of delivery:	2x holder, fastening material (FS)		

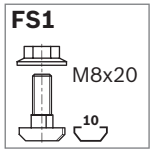


Supporting bracket

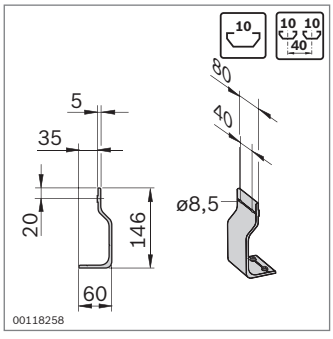


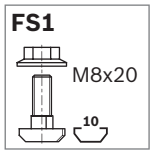
- Supporting bracket for connecting two profiles with defined spacing
- Profile finishing: not required



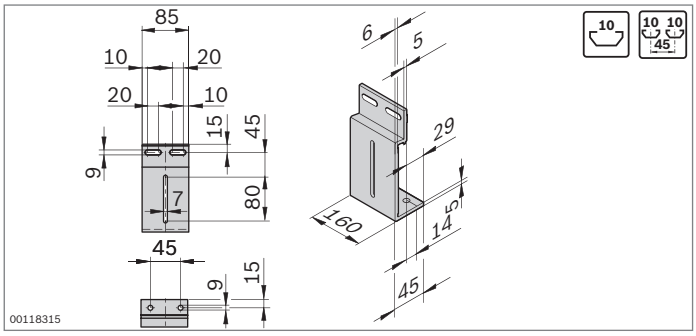


Supporting bracket		No.	FS
		3 842 531 146	6xFS1
Material:	Holder: aluminum, natural, anodized Fastening material: steel, galvanized		
Scope of delivery:	Incl. fastening material (FS)		

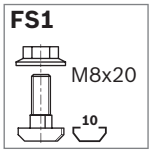


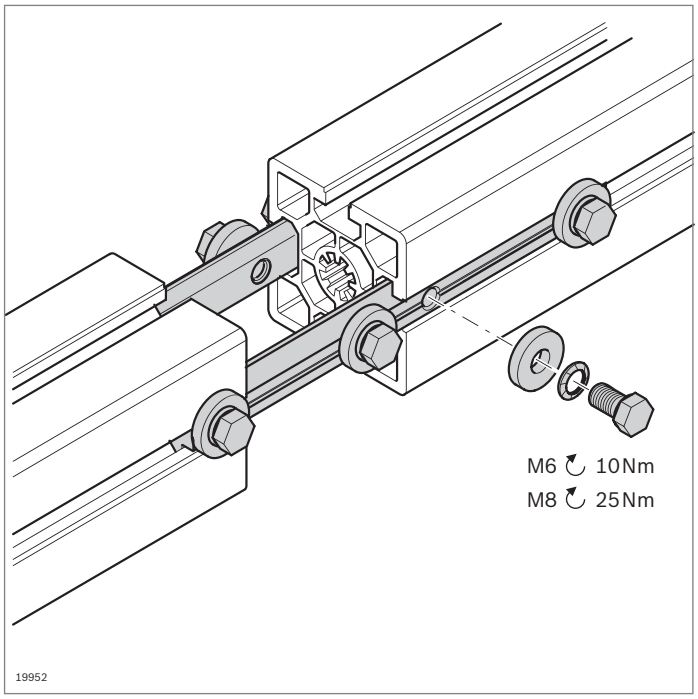


Supporting bracket		No.	FS
	Set	**3 842 533 296**	8xFS1
Material:	Holder: aluminum, natural, anodized Fastening material: steel, galvanized		
Scope of delivery:	2x supporting bracket, fastening material (FS)		



Supporting bracket		No.	FS
	Set	**3 842 531 144**	8xFS1
Material:	Holder: aluminum, natural, anodized Fastening material: steel, galvanized		
Scope of delivery:	2x supporting bracket, fastening material (FS)		

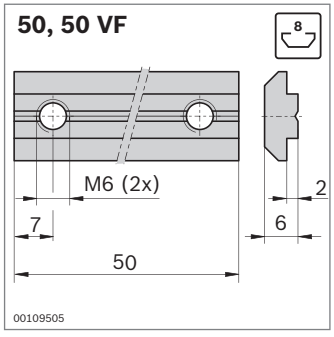




Profile connector



- Profile connector for end-to-end joining of any profiles
- For extra stable connections: one profile connector per slot
- Profile finishing: not required

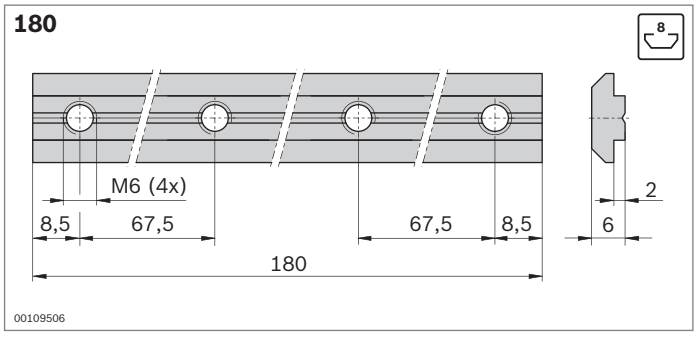






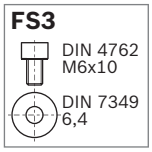
Profile connector	Slot		No.	FS
50 VF	8	10	**3 842 536 787**	2xFS2
50	8	1	**3 842 518 427**	2xFS1

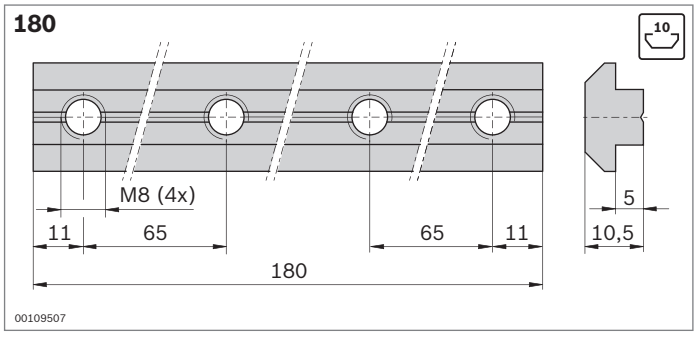
Material: Steel, galvanized, chromated transparent
Fastening material: steel, galvanized
Scope of delivery: Incl. fastening material (FS)



Profile connector	Slot	No.	FS
180	8	**3 842 521 216**	4xFS3

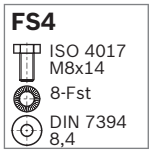
Material: Steel, galvanized, chromated transparent
Fastening material: steel, galvanized
Scope of delivery: Incl. fastening material (FS)

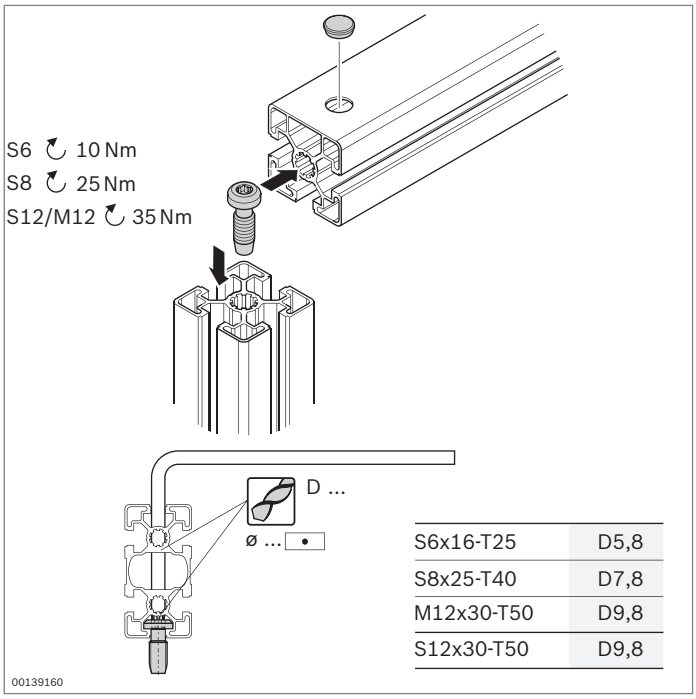




Profile connector	Slot	No.	FS
180	10	**3 842 528 746**	4xFS4

Material: Steel, galvanized, chromated transparent
Fastening material: steel, galvanized
Scope of delivery: Incl. fastening material (FS)





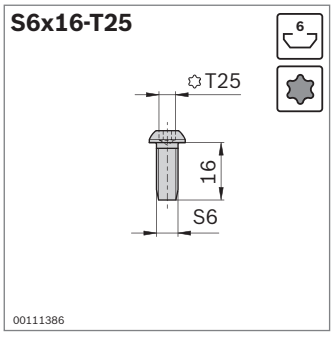
S6x16-T25	D5,8
S8x25-T40	D7,8
M12x30-T50	D9,8
S12x30-T50	D9,8

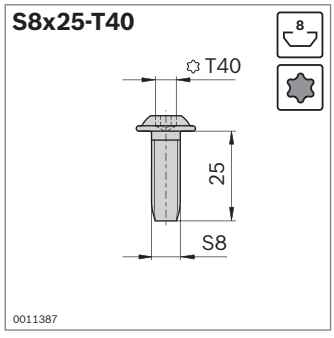
Central bolt, Anti-torsion element, cap

Central bolts

- Best-value connecting element
- Self-tapping screw, can be mounted without profile finishing
- Profile finishing:
  - Thread cutting for M12x30 screw
  - Through hole for screwdriver/offset screwdriver

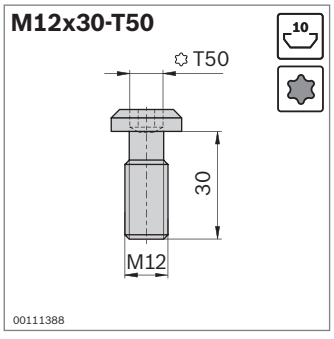
Tool:
Offset screwdriver (p. 14-6)

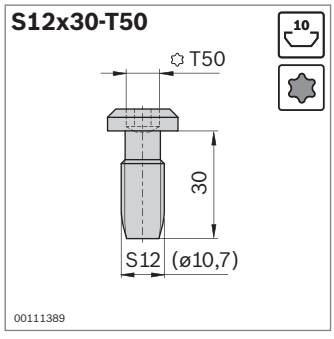




Central bolts	Slot	ESD		No.
S6x16-T25 (self-tapping)	6		100	**3 842 528 593**
S8x25-T40 (self-tapping)	8		100	**3 842 527 174**

Material: Steel, galvanized, chromated transparent



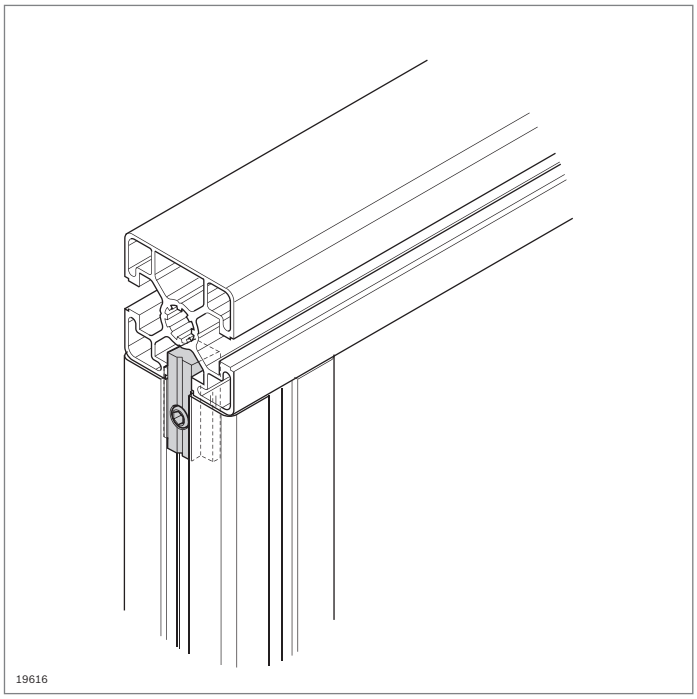


Central bolts	Slot	ESD		No.
M12x30-T50	10		100	**3 842 530 235**
S12x30-T50 (self-tapping)	10		100	**3 842 530 236**

Material: Steel, galvanized, chromated transparent

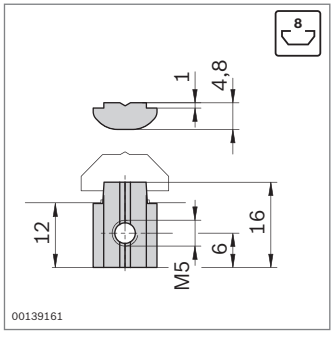
Size	F_{max}	M_{max}
S6	500 N	8 Nm
S8	800 N	43 Nm
S12	1300 N[1)]	80 Nm
M12	3000 N[2)]	80 Nm

1) Only applies for S12
2) Only applies for M12



Anti-torsion element

- Provides torsion resistance for profile connections with central bolts or quick connectors
- Subsequent installation in the connection possible

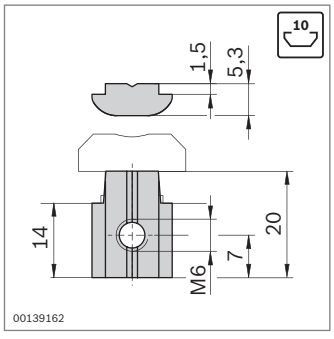


FS1

DIN 916
M5x8

Anti-torsion element	Slot		No.	FS
	8	10	**3 842 530 325**	FS1

Material: Steel, galvanized, chromated transparent
Fastening material: steel, galvanized

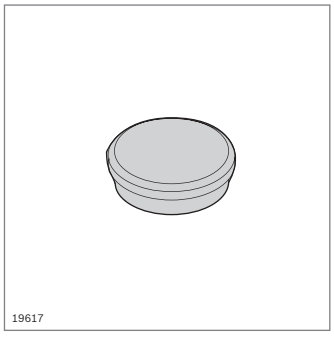


FS2

DIN 916
M6x12

Anti-torsion element	Slot		No.	FS
	10	10	**3 842 530 326**	FS2

Material: Steel, galvanized, chromated transparent
Fastening material: steel, galvanized

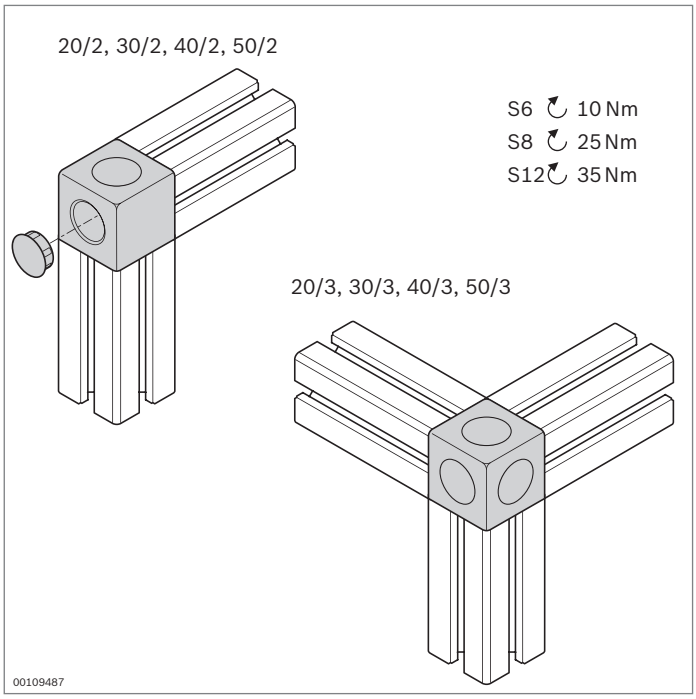


Cap

- For sealing through holes in closed profiles

Cap	ø		No.
	5.8	100	**3 842 538 565**
	7.8	100	**3 842 538 566**
	9.8	100	**3 842 538 567**

Material: PA, light gray RAL 7035



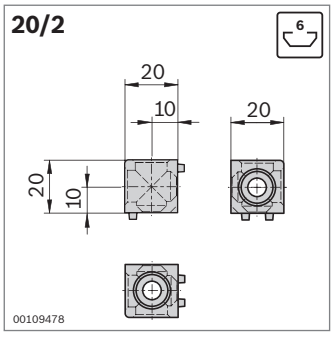
Cubic connector



designLINE

- For torsion-proof corner connections of profiles with equivalent cross-sections
- *designLINE* version with special silver paint (RAL 9006) for an attractive, high-quality design
- Caps to cover the openings
- Screw fitting on profile with self-tapping screws
- Profile finishing: not required

Technical data (p. 19-8)



Type	M_{max}
20/2	18 Nm

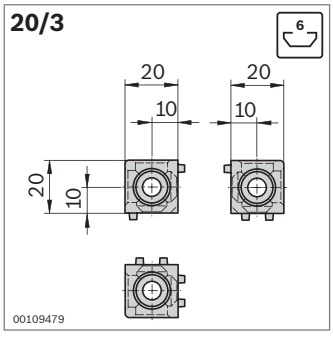
FS1



Cubic connector 20/2	Slot	ESD		No.	FS
Set (standard)	6	ESD	1	**3 842 524 484**	2xFS1
designLINE set	6	ESD	1	**3 842 538 725**	2xFS1
Cubic connector	6	ESD	20	**3 842 523 875**	
Cap D12		ESD	100	**3 842 525 103**	
Countersunk screw S6x16	6	ESD	100	**3 842 517 132**	

Material: Cubic connector: diecast aluminum
designLINE cubic connector: painted (RAL 9006)
Cap: PE, black
Fastening material: steel, galvanized

Scope of delivery: Set incl. fastening material (FS), caps



Type	$\frac{M_{max}}{2}$ $\frac{M_{max}}{2}$
20/3	23 Nm

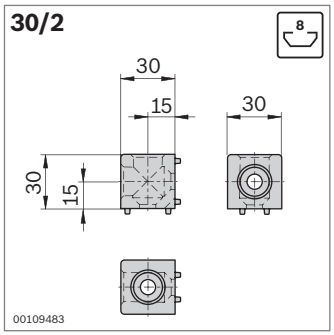
FS1



Cubic connector 20/3	Slot	ESD		No.	FS
Set (standard)	6	ESD	1	**3 842 524 478**	3xFS1
designLINE set	6	ESD	1	**3 842 538 726**	3xFS1
Cubic connector	6	ESD	20	**3 842 523 872**	
Cap D12		ESD	100	**3 842 525 103**	
Countersunk screw S6x16	6	ESD	100	**3 842 517 132**	

Material: Cubic connector: diecast aluminum
designLINE cubic connector: painted (RAL 9006)
Cap: PE, black
Fastening material: steel, galvanized

Scope of delivery: Set incl. fastening material (FS), caps



Type	M_{max}
30/2	80 Nm

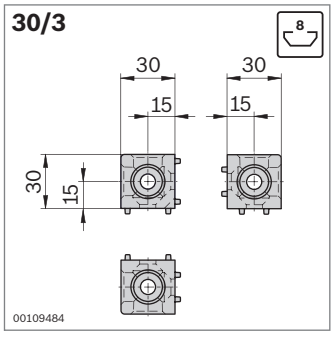
FS2



Cubic connector 30/2	Slot	ESD		No.	FS
Set (standard)	8		1	**3 842 524 485**	2xFS2
designLINE set	8		1	**3 842 538 727**	2xFS2
Cubic connector	8		20	**3 842 523 876**	
Cap D18			100	**3 842 525 104**	
Countersunk screw S8x25	8		100	**3 842 517 543**	

Material: Cubic connector: diecast aluminum
designLINE cubic connector: painted (RAL 9006)
Cap: PE, black
Fastening material: steel, galvanized

Scope of delivery: Set incl. fastening material (FS), caps



Type	$\frac{M_{max}}{2}$ $\frac{M_{max}}{2}$
30/3	85 Nm

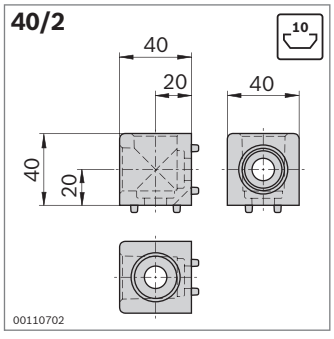
FS2



Cubic connector 30/3	Slot	ESD		No.	FS
Set (standard)	8		1	**3 842 524 479**	3xFS2
designLINE set	8		1	**3 842 538 728**	3xFS2
Cubic connector	8		20	**3 842 523 873**	
Cap D18			100	**3 842 525 104**	
Countersunk screw S8x25	8		100	**3 842 517 543**	

Material: Cubic connector: diecast aluminum
designLINE cubic connector: painted (RAL 9006)
Cap: PE, black
Fastening material: steel, galvanized

Scope of delivery: Set incl. fastening material (FS), caps



Type	M_{max}
40/2	60 Nm

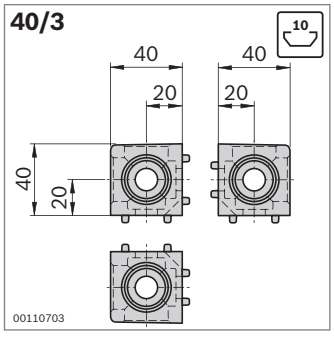
FS3



Cubic connector 40/2	Slot	ESD		No.	FS
Set (standard)	10		1	**3 842 529 395**	2xFS3
designLINE set	10		1	**3 842 538 729**	2xFS3
Cubic connector	10		20	**3 842 529 010**	
Cap D24			100	**3 842 525 105**	
Countersunk screw S12x30	10		100	**3 842 530 236**	

Material: Cubic connector: diecast aluminum
designLINE cubic connector: painted (RAL 9006)
Cap: PE, black
Fastening material: steel, galvanized

Scope of delivery: Set incl. fastening material (FS), caps



Type	M_{max} $\frac{M_{max}}{2}$ $\frac{M_{max}}{2}$
40/3	70 Nm

FS3

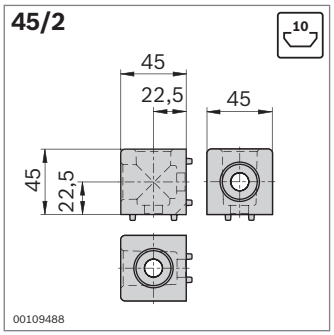


Cubic connector 40/3	Slot	ESD		No.	FS
Set (standard)	10		1	**3 842 529 397**	3xFS3
designLINE set	10		1	**3 842 538 730**	3xFS3
Cubic connector	10		20	**3 842 529 011**	
Cap D24			100	**3 842 525 105**	
Countersunk screw S12x30	10		100	**3 842 530 236**	

Material: Cubic connector: diecast aluminum
designLINE cubic connector: painted (RAL 9006)
Cap: PE, black
Fastening material: steel, galvanized

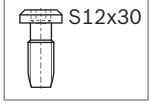
Scope of delivery: Set incl. fastening material (FS), caps

45/2



Type		M_{max}
45/2	45x45L	150 Nm
	45x45	200 Nm

FS3

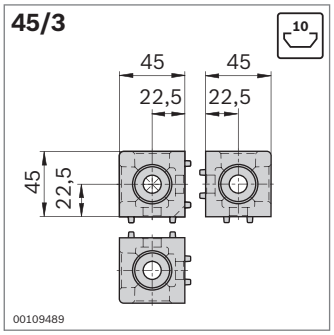


Cubic connector 45/2	Slot	ESD		No.	FS
Set (standard)	10		1	**3 842 524 486**	2xFS3
designLINE set	10		1	**3 842 538 731**	2xFS3
Cubic connector	10		20	**3 842 523 877**	
Cap			100	**3 842 525 105**	
Countersunk screw S12x30	10		100	**3 842 530 236**	

Material: Cubic connector: diecast aluminum
designLINE cubic connector: painted (RAL 9006)
Cap: PE, black
Fastening material: steel, galvanized

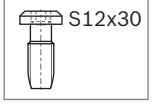
Scope of delivery: Set incl. fastening material (FS), caps

45/3



Type		$\frac{M_{max}}{2}$ $\frac{M_{max}}{2}$
45/3	45x45L	170 Nm
	45x45	240 Nm

FS3

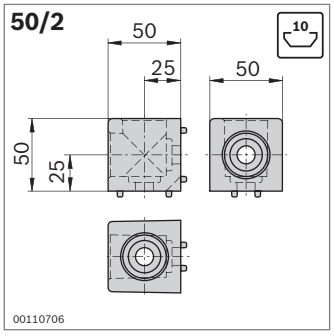


Cubic connector 45/3	Slot	ESD		No.	FS
Set (standard)	10		1	**3 842 524 480**	3xFS3
designLINE set	10		1	**3 842 538 732**	3xFS3
Cubic connector	10		20	**3 842 523 874**	
Cap			100	**3 842 525 105**	
Countersunk screw S12x30	10		100	**3 842 530 236**	

Material: Cubic connector: diecast aluminum
designLINE cubic connector: painted (RAL 9006)
Cap: PE, black
Fastening material: steel, galvanized

Scope of delivery: Set incl. fastening material (FS), caps

50/2



Type	M_{max}
50/2	120 Nm

FS3

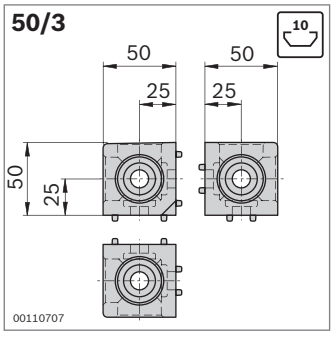


Cubic connector 50/2	Slot	ESD		No.	FS
Set (standard)	10		1	**3 842 529 399**	2xFS3
Cubic connector	10		20	**3 842 529 012**	
Cap			100	**3 842 529 021**	
Countersunk screw S12x30	10		100	**3 842 530 236**	

Material: Cubic connector: diecast aluminum
Cap: PE, black
Fastening material: steel, galvanized

Scope of delivery: Set incl. fastening material (FS), caps

50/3



Type	$\frac{M_{max}}{2}$ $\frac{M_{max}}{2}$
50/3	140 Nm

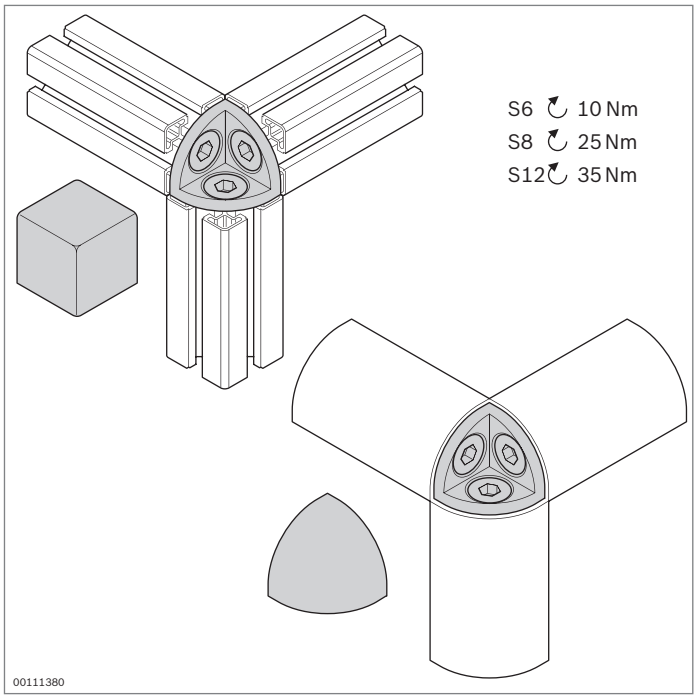
FS3



Cubic connector 50/3	Slot	ESD		No.	FS
Set (standard)	10		1	**3 842 529 401**	3xFS3
Cubic connector	10		20	**3 842 529 013**	
Cap			100	**3 842 529 021**	
Countersunk screw S12x30	10		100	**3 842 530 236**	

Material: Cubic connector: diecast aluminum
Cap: PE, black
Fastening material: steel, galvanized

Scope of delivery: Set incl. fastening material (FS), caps

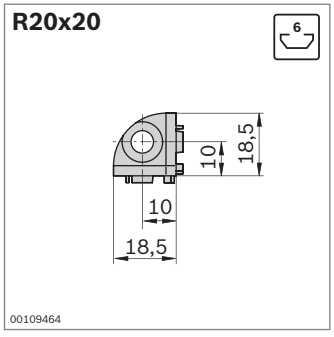


Corner bracket



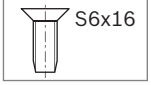
- Corner bracket for corner connection of three square or half-round profiles with equivalent cross-sections
- Screw fitting on profiles with self-tapping screws
- Ball or cubic caps to prevent injuries and avoid dirt
- Profile finishing: not required

R20x20



Type	$\frac{M_{max}}{2}$ $\frac{M_{max}}{2}$
20/3	23 Nm

FS1

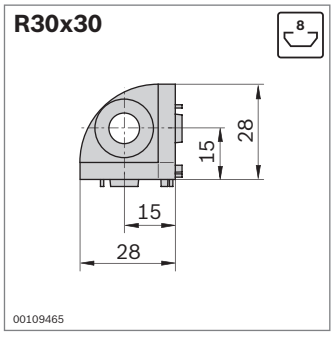


R20x20	Slot	ESD	No.	FS
Corner bracket	6	ESD	**3 842 519 318**	3xFS1
Cap K (ball)			**3 842 517 146**	
Cap W (cube)			**3 842 517 147**	

Material: Corner bracket: diecast zinc
Caps: PA, black
Fastening material: steel, galvanized

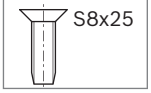
Scope of delivery: Incl. fastening material (FS)

R30x30



Type	$\frac{M_{max}}{2}$ $\frac{M_{max}}{2}$
30/3	85 Nm

FS2

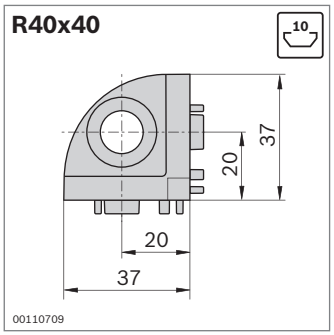


R30x30	Slot	ESD	No.	FS
Corner bracket	8	ESD	**3 842 519 319**	3xFS2
Cap K (ball)			**3 842 517 281**	
Cap W (cube)			**3 842 517 282**	

Material: Corner bracket: diecast zinc
Caps: PA, black
Fastening material: steel, galvanized

Scope of delivery: Incl. fastening material (FS)

R40x40



Type	$\frac{M_{max}}{2}$ $\frac{M_{max}}{2}$
40/3	70 Nm

FS3

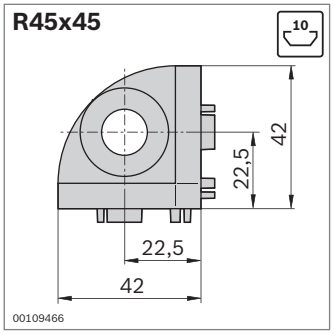


R40x40	Slot	ESD	No.	FS
Corner bracket	10	ESD	**3 842 529 404**	3xFS3
Cap K (ball)		ESD	**3 842 529 016**	
Cap W (cube)		ESD	**3 842 529 018**	

Material: Corner bracket: diecast zinc
Caps: PA, black
Fastening material: steel, galvanized

Scope of delivery: Incl. fastening material (FS)

R45x45



Type		$\frac{M_{max}}{2}$ $\frac{M_{max}}{2}$
45/3	45x45L	170 Nm
	45x45	240 Nm

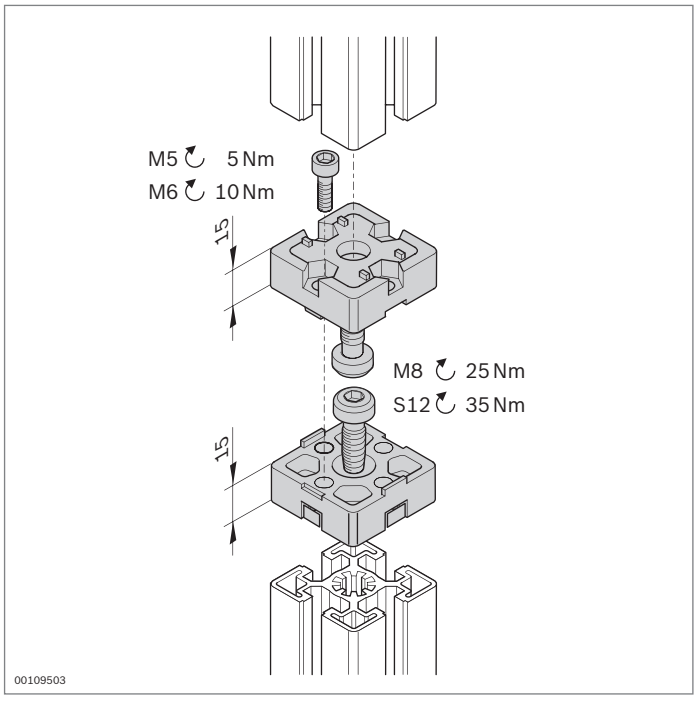
FS4



R45x45	Slot	ESD	No.	FS
Corner bracket	10	ESD	**3 842 519 321**	3xFS4
Cap K (ball)			**3 842 517 290**	
Cap W (cube)			**3 842 517 291**	

Material: Corner bracket: diecast zinc
Caps: PA, black
Fastening material: steel, galvanized

Scope of delivery: Incl. fastening material (FS)

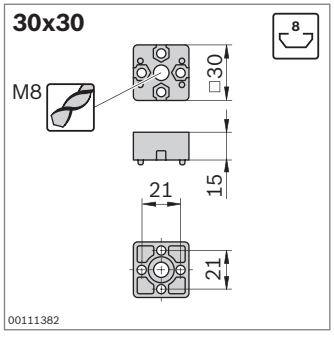


End connector



designLINE

- For end-to-end profile connections
- *designLINE* version with special silver paint (RAL 9006) for an attractive, high-quality design
- Profile finishing:
  - 30x30: M8 thread cutting in central bores
  - 40x40, 45x45, 50x50: not required



Type	M_{max}
30x30	81 Nm

FS1



DIN7984 M8x30

FS2



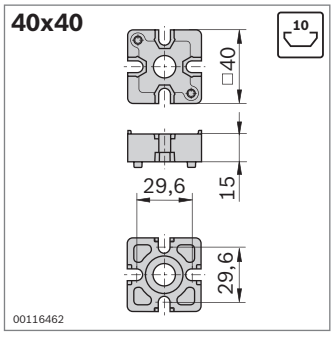
DIN 7984 M5x25

DIN 934 M5

End connector		Slot	ESD	No.	FS
30x30	Set (standard)	8		**3 842 526 003**	2xFS1, 4xFS2
	designLINE set	8		**3 842 538 656**	2xFS1, 4xFS2

Material: End connector: die-cast aluminum
designLINE end connector: painted (RAL 9006)
Fastening material: steel, galvanized

Scope of delivery: Set incl. fastening material (FS)



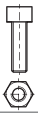
Type	M_{max}
40x40	170 Nm

FS3



S12x30

FS4



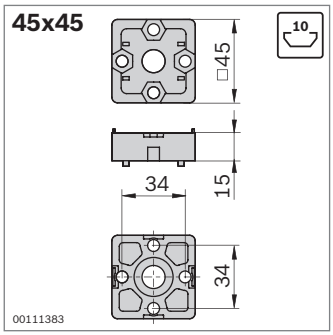
DIN 7984 M6x25

DIN 4032 M6

End connector		Slot	ESD	No.	FS
40x40	Set (standard)	10		**3 842 532 196**	2xFS3, 4xFS4
	designLINE set	10		**3 842 538 657**	2xFS3, 4xFS4

Material: End connector: die-cast aluminum
designLINE end connector: painted (RAL 9006)
Fastening material: steel, galvanized

Scope of delivery: Set incl. fastening material (FS)



Type	M_{max}
45x45	200 Nm

FS3



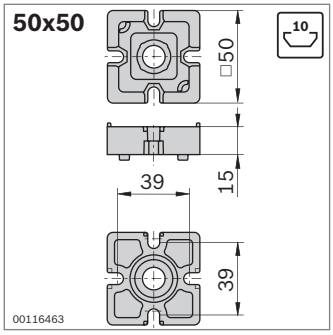
FS4



End connector		Slot	ESD	No.	FS
45x45 Set (standard)		10		**3 842 191 175**	2xFS3, 4xFS4
	designLINE set	10		**3 842 538 658**	2xFS3, 4xFS4

Material: End connector: diecast zinc
designLINE end connector: painted (RAL 9006)
Fastening material: steel, galvanized

Scope of delivery: Set incl. fastening material (FS)



Type	M_{max}
50x50	180 Nm

FS3



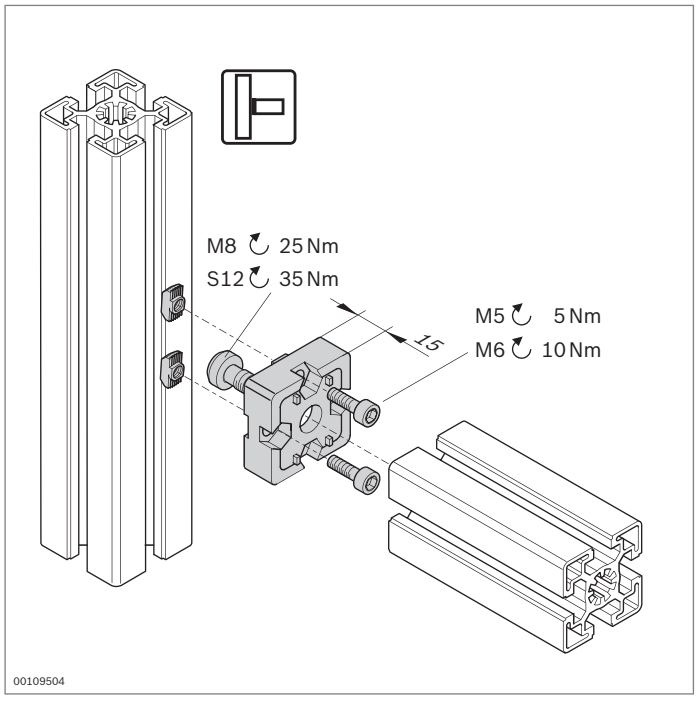
FS4



End connector	Slot	ESD	No.	FS
50x50 Set (standard)	10		**3 842 532 199**	2xFS3, 4xFS4

Material: End connector: diecast zinc
Fastening material: steel, galvanized

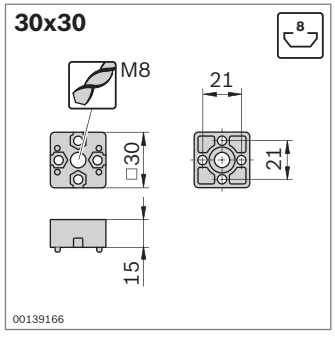
Scope of delivery: Set incl. fastening material (FS)



T-connector

designLINE

- For right-angled profile connections
- *designLINE* version with special silver paint (RAL 9006) for an attractive, high-quality design
- Profile finishing:
  - 30x30: M8 thread cutting in central bores
  - 40x40, 45x45, 50x50: not required



Type	F_{max}	M_{max}
30x30	4000 N	80 Nm

FS1

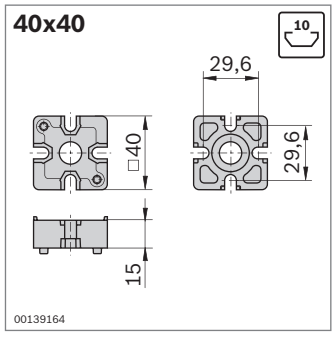


DIN7984 M8x30

FS2



DIN 7984 M5x16



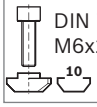
Type	F_{max}	M_{max}
40x40	9000 N	150 Nm

FS3



S12x30

FS4



DIN 7984 M6x20

T-connector		Slot	ESD	No.	FS
30x30	Set (standard)	8	ESD	**3 842 524 476**	1xFS1, 2xFS2
	designLINE set	8	ESD	**3 842 538 696**	1xFS1, 2xFS2

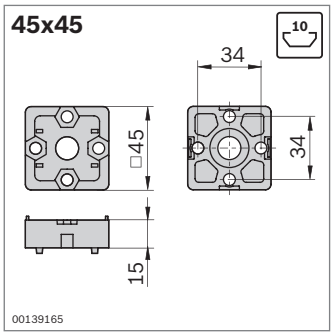
Material: T-connector: die-cast aluminum
designLINE T-connector: painted (RAL 9006)
Fastening material: steel, galvanized

Scope of delivery: Set incl. fastening material (FS)

T-connector		Slot	ESD	No.	FS
40x40	Set (standard)	10	ESD	**3 842 532 195**	1xFS3, 2xFS4
	designLINE set	10	ESD	**3 842 538 697**	1xFS3, 2xFS4

Material: T-connector: die-cast aluminum
designLINE T-connector: painted (RAL 9006)
Fastening material: steel, galvanized

Scope of delivery: Set incl. fastening material (FS)

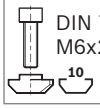


Type	F_{max}	M_{max}
45x45	9000 N	200 Nm

FS3

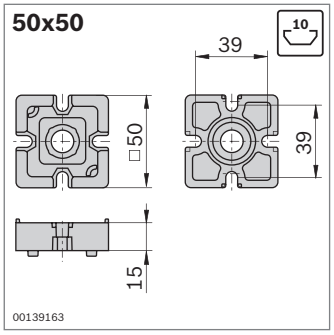


FS4



T-connector		Slot	ESD	No.	FS
45x45	Set (standard)	10		**3 842 520 802**	1xFS3, 2xFS4
	designLINE set	10		**3 842 538 698**	1xFS3, 2xFS4

Material: T-connector: diecast zinc
designLINE T-connector: painted (RAL 9006)
Fastening material: steel, galvanized
Scope of delivery: Set incl. fastening material (FS)

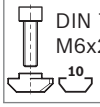


Type	F_{max}	M_{max}
50x50	10,000 N	170 Nm

FS3

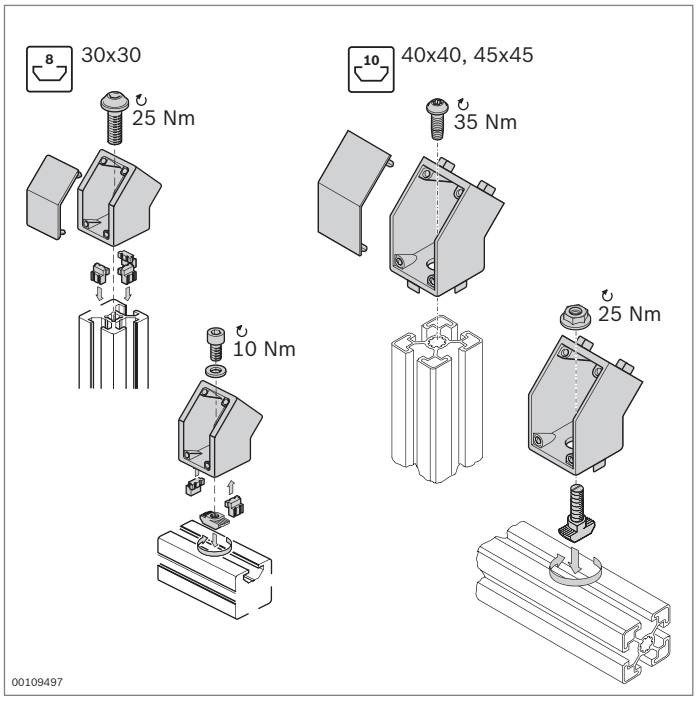


FS4



T-connector		Slot	ESD	No.	FS
50x50	Set (standard)	10		**3 842 532 198**	1xFS3, 2xFS4

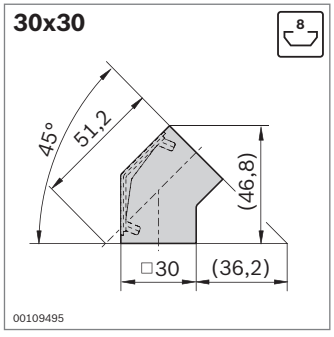
Material: T-connector: diecast zinc
Fastening material: steel, galvanized
Scope of delivery: Set incl. fastening material (FS)



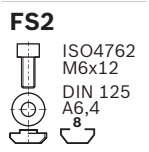
45° connector

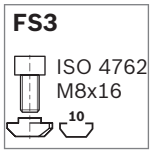
designLINE

- For connecting profiles at a 45° angle
- Suitable as a frame reinforcement
- Suitable for connections at the end of the profile or in the profile slot
- 45° connectors, 40x40 and 45x45, with centering lugs for simple positioning (centering lugs can be easily broken off for assembly in the profile slot)
- *designLINE* version with special silver paint (RAL 9006) for an attractive, high-quality design
- Profile finishing: not required





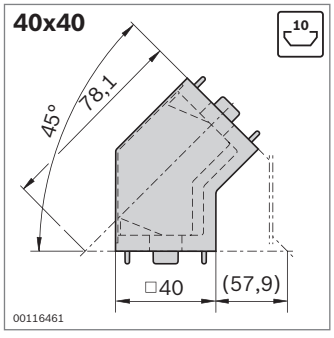




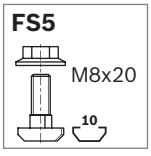
45° connector		Slot	ESD	No.	FS
30x30	Set (standard)	8	ESD	**3 842 518 426**	2xFS1, FS2, FS3
	designLINE set	8	ESD	**3 842 538 700**	2xFS1, FS2, FS3

Material: 45° connector: diecast zinc
designLINE 45° connector: painted (RAL 9006)
Centering element, cap: PA, black
Fastening material: steel, galvanized

Scope of delivery: Set incl. fastening material (FS), 6x centering element, cap



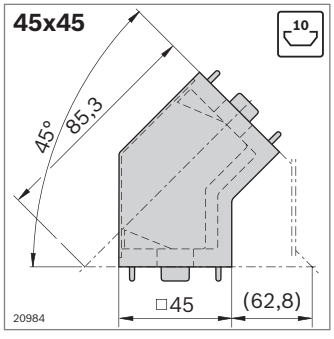




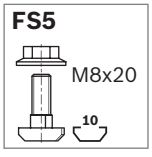
45° connector		Slot	ESD	No.	FS
40x40	Set (standard)	10	ESD	**3 842 532 205**	2xFS4, FS5
	designLINE set	10	ESD	**3 842 538 701**	2xFS4, FS5

Material: 45° connector: cast aluminum
designLINE 45° connector: painted (RAL 9006)
Cap: PA, black
Fastening material: steel, galvanized

Scope of delivery: Set incl. fastening material (FS), cap



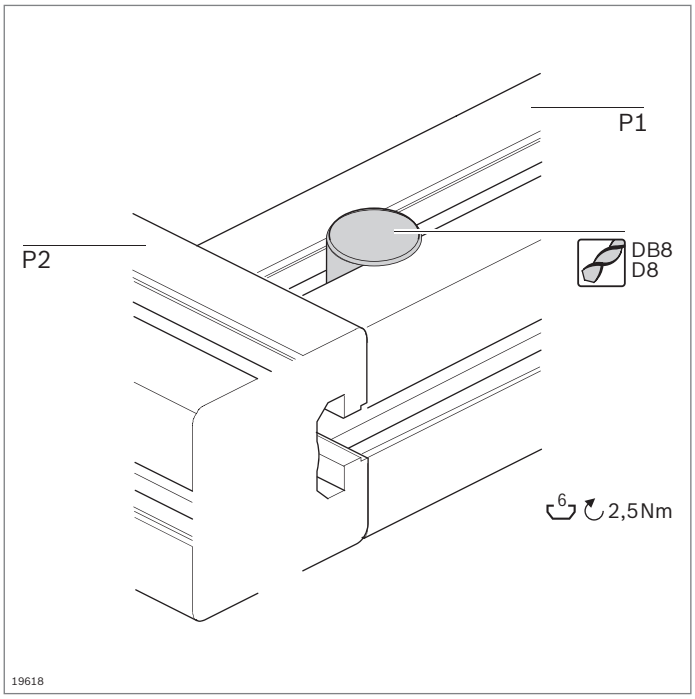




45° connector		Slot	ESD	No.	FS
45x45	Set (standard)	10	ESD	**3 842 535 428**	2xFS4, FS5
	designLINE set	10	ESD	**3 842 538 702**	2xFS4, FS5

Material: 45° connector: cast aluminum
designLINE 45° connector: painted (RAL 9006)
Cap: PA, black
Fastening material: steel, galvanized

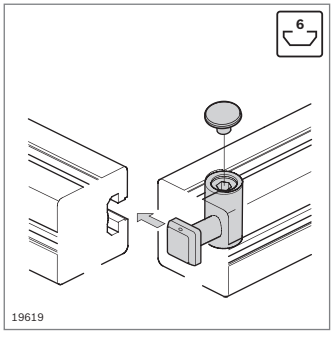
Scope of delivery: Set incl. fastening material (FS), cap

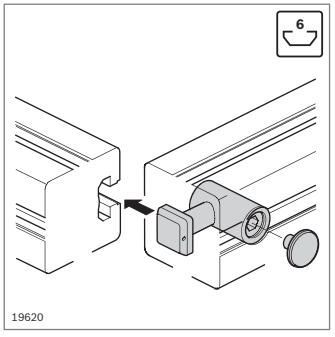


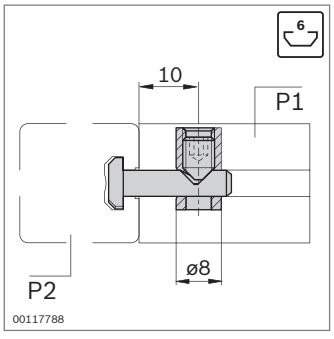
Quick connector, 6 mm slot, 0°, 90°
Cap

- For right-angled connections between two profiles
- Excellent accessibility for tools during mounting
- Quick connector for 6 mm slot with square head; can be used as a 0° or 90° connector
- Profile finishing:
  Blind hole DB8 or through hole D8

Optional accessories:
Drilling jig (p. 14-2)



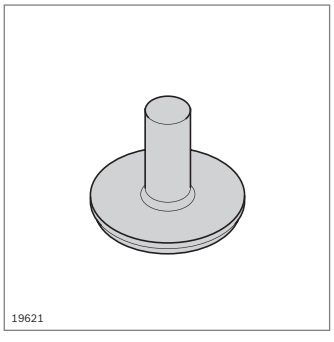




Slot	F_{max}	M_{max}
6/6	450 N	18 Nm

Quick connector 0°/90°	P1/P2	D (mm)	ESD		No.
	6/6	8		10	**3 842 537 013**

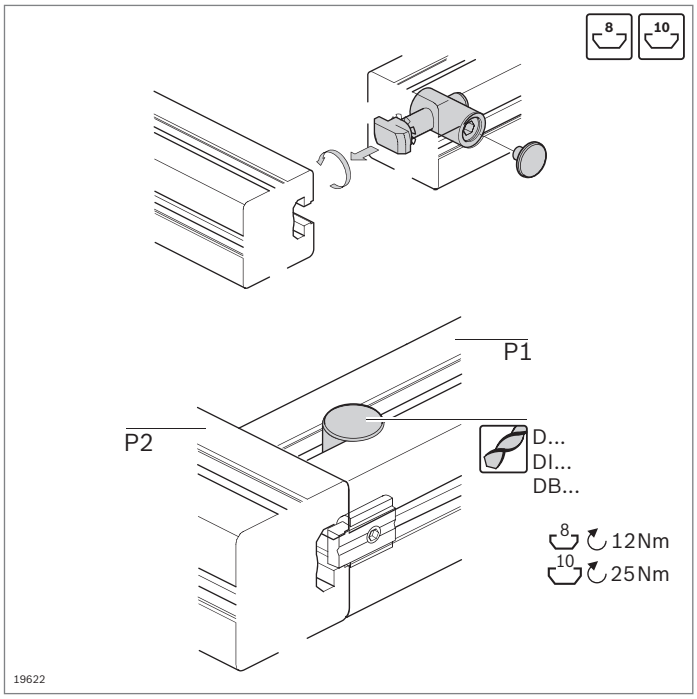
Material: Steel, stainless



- Cap for connector sleeves

Cap	D (mm)		No.
	8	100	**3 842 538 562**

Material: PE, light gray RAL 7035



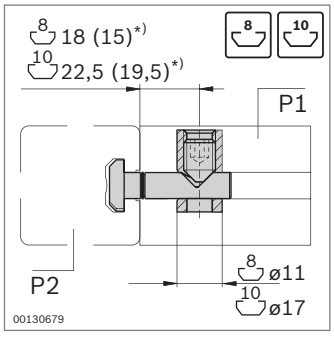
Quick connector, 8/10 mm slot, 0°



- For right-angled connections between two profiles
- Excellent accessibility for tools during assembly
- O-ring for mounting enables overhead assembly
- Quick connectors can be swiveled into the profile slot at the point of assembly
- Profile finishing:
  Blind hole DI, DB11, DB17 or
  through hole DI, D11, D17
- Note deviating drilling distances and loads when using a radial compensation (see “Technical data”)

Optional accessories:

- Anti-torsion element (p. 3-37)
- Radial compensation (p. 2-78)
- Drilling jig (p. 14-2)
- Cap (p. 3-50)

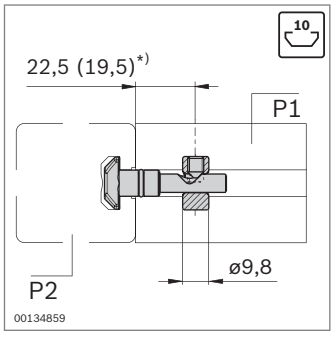


Slot	F_{max}	M_{max}
8/8	500 N	40 Nm
8/10	2000 N	70 Nm
10/10	4000 N	140 Nm

*) With the use of a radial compensation

Quick connector 0°	P1/P2	D (mm)	ESD		No.
	8/8	11	ESD	10	**3 842 535 459**
	8/10	11	ESD	10	**3 842 535 464**
	10/10	17	ESD	10	**3 842 535 458**

Material: Steel, galvanized, chromated transparent



Slot	F_{max}	M_{max}
10/10	800 N	50 Nm

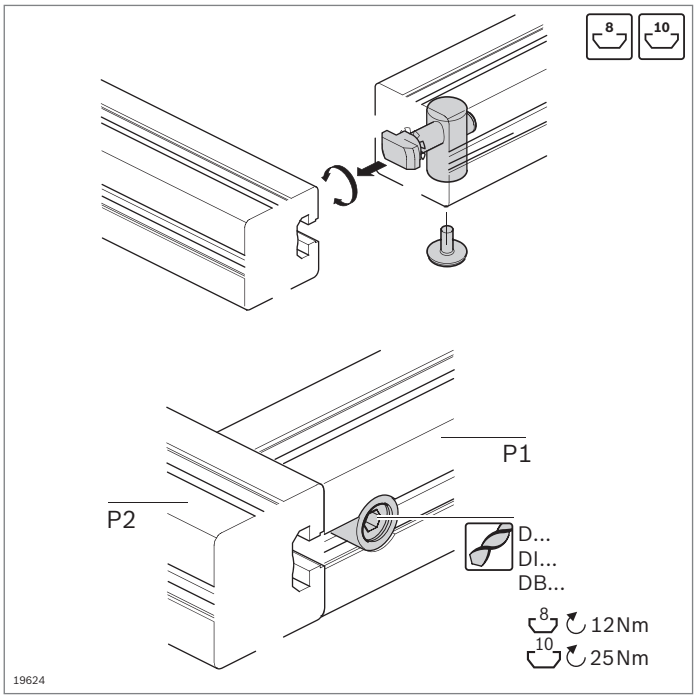
*) With the use of a radial compensation

- Quick connector 9.8 with smaller connector sleeve
- The hole for the connector sleeve does not make contact with the slot flanks. This permits a visually attractive connection; the slot can be completely closed with the cover profile

Quick connector 0°, connector sleeve D = 9.8	P1/P2	D (mm)	ESD		No.
	10/10	9.8[1)]	ESD	10	**3 842 541 412**

1) No standard hole in modular dimensions 40, 50 and 60
Target distance to profile end: 22.5 mm

Material: Steel, galvanized, chromated transparent



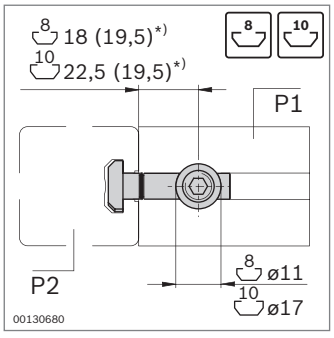
Quick connector, 8/10 mm slot, 90°, Cap



- Tie rod head rotated at a 90° angle to the connector sleeve
- Profile finishing:
  Blind hole DI, DB11, DB17 or
  through hole DI, D11, D17

Optional accessories:

- Anti-torsion element (p. 3-37)
- Radial compensation (p. 2-78)
- Drilling jig (p. 14-2)
- Cap

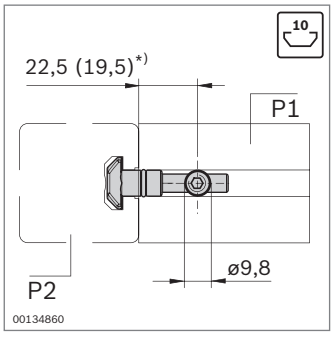


Slot	F_{max}	M_{max}
8/8	2000 N	70 Nm
10/10	4000 N	140 Nm

*) With the use of a radial compensation

Quick connector 90°	P1/P2	D (mm)	ESD		No.
	8/8	11		10	**3 842 535 465**
	10/10	17		10	**3 842 535 466**

Material: Steel, galvanized, chromated transparent



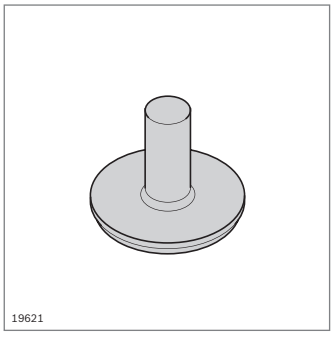
Slot	F_{max}	M_{max}
10/10	800 N	50 Nm

*) With the use of a radial compensation

Quick connector 90°, connector sleeve D = 9.8	P1/P2	D (mm)	ESD		No.
	10/10	9.8[1)]		10	**3 842 541 410**

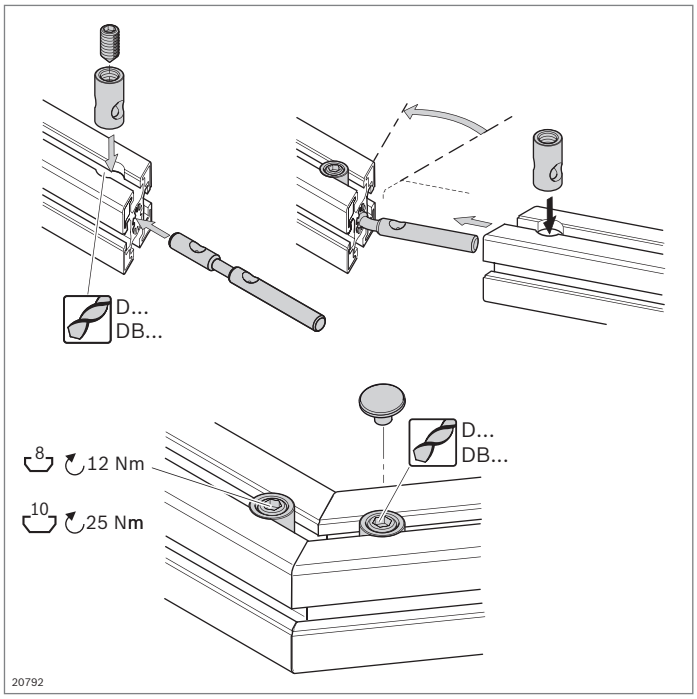
1) No standard hole in modular dimensions 40, 50 and 60
Target distance to profile end: 22.5 mm

Material: Steel, galvanized, chromated transparent



Cap	D (mm)		No.
	11	100	**3 842 538 563**
	17	100	**3 842 538 564**

Material: PE, light gray RAL 7035



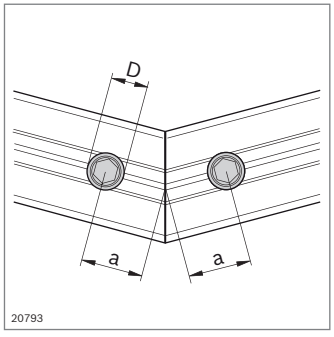
Quick connector, bendable – end-to-end

- For end-to-end connections of two profiles with equivalent cross-sections and at any angle, e.g. for frames
- Profile finishing:
  - Blind hole DB11, DB17 or through hole D11, D17
  - Miter cuts

Technical data (p. 19-6)

Accessories:

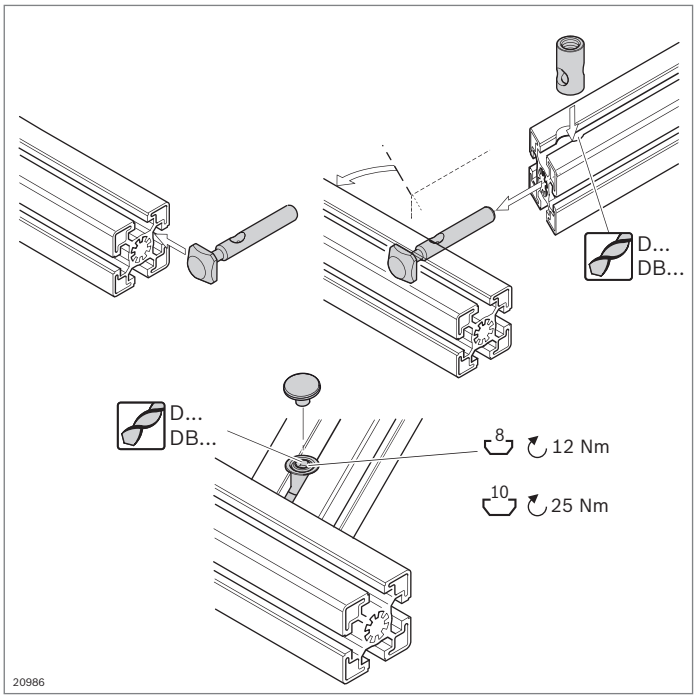
- Drilling jig (p. 14-2)
- Cap (p. 3-50)

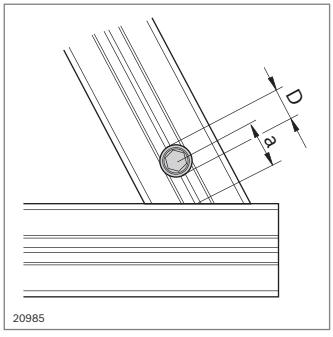


	M_{max}
30x30	24 Nm
40x40L	100 Nm
45x45L	110 Nm
45x45	145 Nm
50x50L	160 Nm

Quick connector, bendable	**P1/P2**	**a** (mm)	**D** (mm)	**ESD**		**No.**
End-to-end	8/8	18	11	ESD	10	**3 842 535 630**
	10/10	22.5	17	ESD	10	**3 842 535 634**

Material: Tie rod: steel, stainless
Socket: steel, galvanized





	F_{max}	M_{max}	F_{max}	M_{max}
30x30	1100 N	35 Nm	650 N	40 Nm
40x40L	1500 N	110 Nm	1000 N	80 Nm
45x45L	1500 N	120 Nm	1000 N	95 Nm
45x45	1500 N	140 Nm	1100 N	180 Nm
50x50L	1500 N	150 Nm	1100 N	180 Nm

Quick connector, bendable – end-to-slot



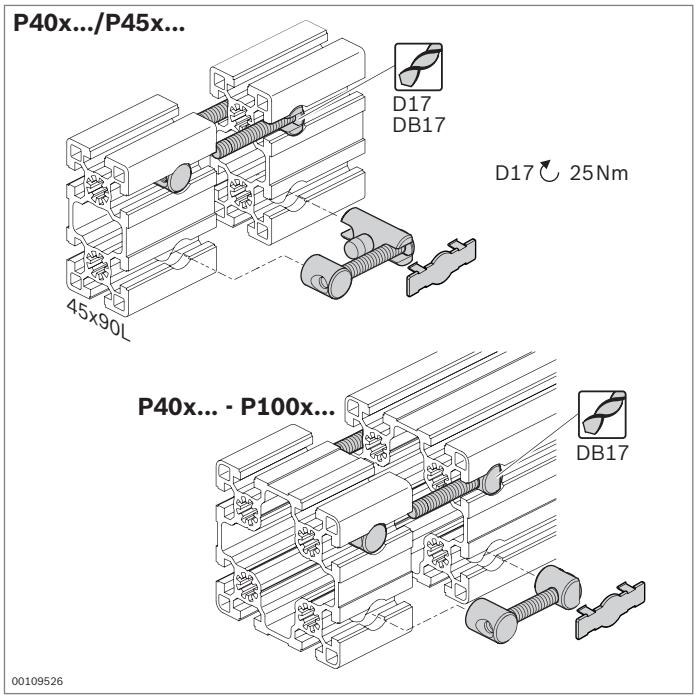
- For end-to-slot connections of two profiles at any angle, e.g. for framework constructions
- Profile finishing:
  - Blind hole DB11, DB17 or through hole D11, D17
  - Miter cuts

Technical data (p. 19-6)

Accessories:
- Drilling jig (p. 14-2)
- Cap (p. 3-50)

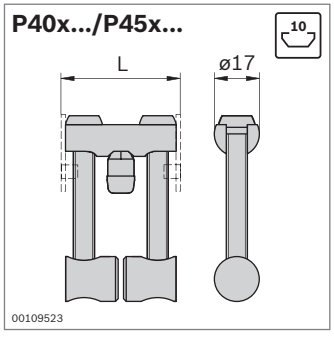
Quick connector, bendable	P1/P2	a (mm)	D (mm)	ESD		No.
End-to-slot	8/8	18	11	ESD	10	**3 842 535 629**
	10/10	22.5	17	ESD	10	**3 842 535 635**

Material: Tie rod: steel, stainless
Socket: steel, galvanized, chromated transparent



Longitudinal end connector

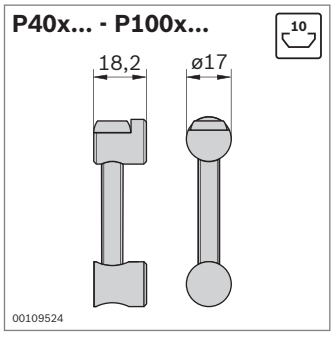
- For end-to-end connections of two profiles
- Standard profile finishes:
  - Through hole D17 (two-sided longitudinal end connector)
  - Blind hole DB17 or through hole D17 (one-sided longitudinal end connector)



Longitudinal end connector, two-sided	**L** (mm)	**ESD**	**No.**
Profile 40x...	40		**3 842 529 293**
Profile 45x...	45		**3 842 529 248**

Material: Longitudinal end connector: screw steel, galvanized
Centering bolt, caps: PA, black

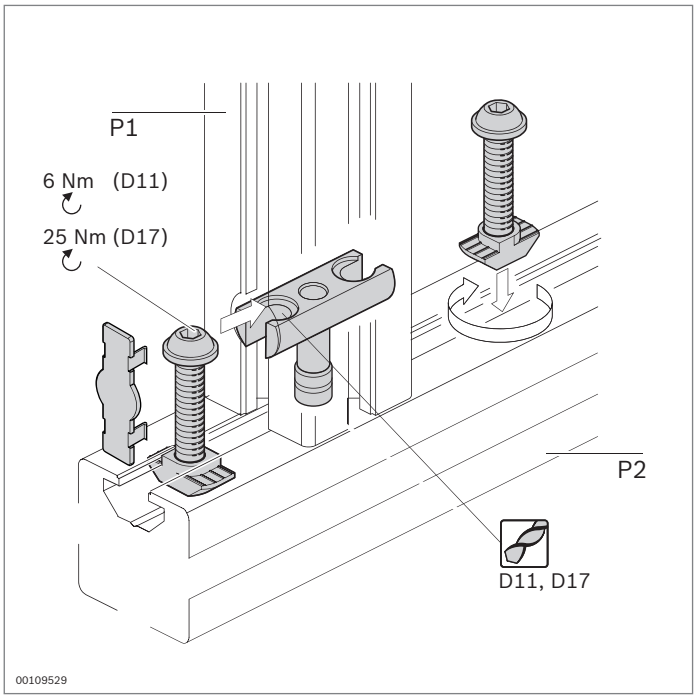
Scope of delivery: Incl. 4x cap



Longitudinal end connector, one-sided	**ESD**	**No.**
Profile 40x ... to 100x...		**3 842 529 334**

Material: Longitudinal end connector: screw steel, galvanized
Centering bolt, caps: PA, black

Scope of delivery: Incl. 2x cap

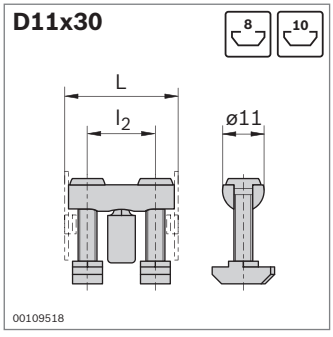


Bolt connector

- For right-angled connections between two profiles
- Designed for heavy loads and torsion
- Can be installed in closed frames
- Profile finishing: through hole D11, D17

Technical data (p. 19-7)

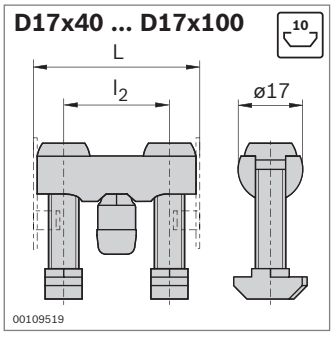
Accessories:
Drilling jig (p. 14-2)



Bolt connector	P1/P2	L (mm)	l_2 (mm)	ESD		No.
D11x30	8/8	30	18		10	**3 842 535 624**
	8/10	30	18		10	**3 842 535 583**

Material: Bolt connector: steel, galvanized
Centering bolt, caps: PA, black

Scope of delivery: Incl. 2 caps



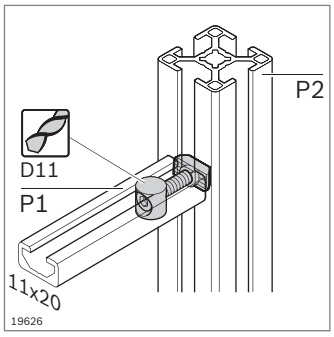
Bolt connector	P1/P2	L (mm)	l_2 (mm)	ESD		No.
D17x40	10/10	40	23		10	**3 842 535 620**
D17x45	10/10	45	28		10	**3 842 500 921**
D17x50	10/10	50	33		10	**3 842 535 621**
D17x60	10/10	60	43		10	**3 842 500 922**
D17x80	10/10	80	63		10	**3 842 535 622**
D17x90	10/10	90	73		10	**3 842 500 923**
D17x100	10/10	100	83		10	**3 842 535 618**

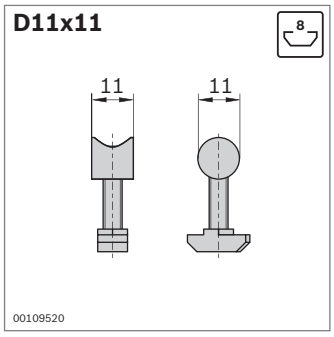
Material: Bolt connector: steel, galvanized
Centering bolt, caps: PA, black

Scope of delivery: Incl. 2 caps

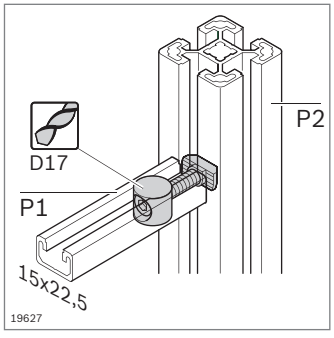
Size	F_{max}	M_{max}	M_{max}
30	2500 N	60 Nm	20 Nm
40	4000 N	180 Nm	40 Nm
45	4000 N	180 Nm	60 Nm
50	4000 N	200 Nm	65 Nm

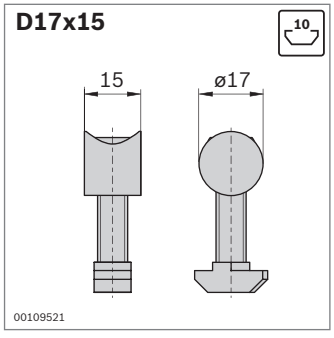
Size	F_{max}	M_{max}	M_{max}
60	4000 N	200 Nm	80 Nm
80	5000 N	800 Nm	170 Nm
90	5000 N	800 Nm	200 Nm
100	5000 N	1000 Nm	480 Nm



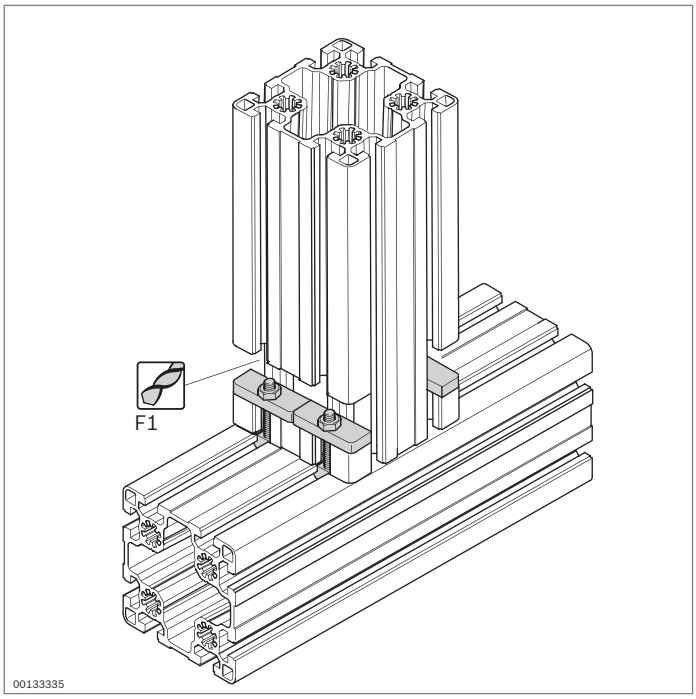


Bolt connector		P1/P2	ESD		No.
D11x11		8/8		10	**3 842 535 617**
Material:	Steel, galvanized				





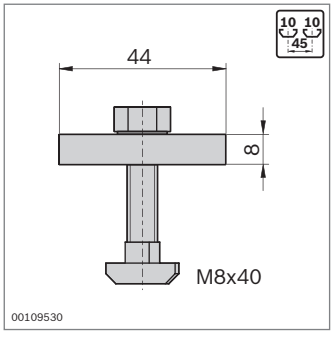
Bolt connector		P1/P2	ESD		No.
D17x15		10/10		10	**3 842 535 619**
Material:	Steel, galvanized				



Cross connectors

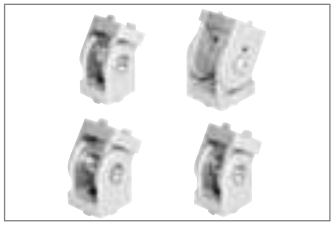


- For right-angled connections between two profiles
- Excellent accessibility for tools during mounting
- For heavy loads
- Profile finishing: standard milling F1



Cross connectors		No.
	10	**3 842 146 972**
Material:	Steel, galvanized, chromated transparent	

Joints



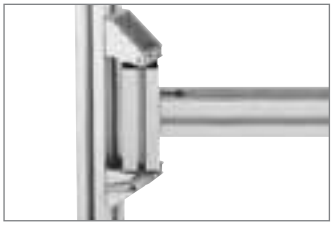
Joints (p. 4-2)



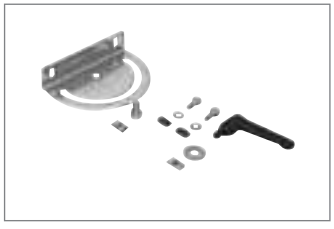
Swivel bearing (p. 4-6)



Supporting arm joint (p. 4-7)



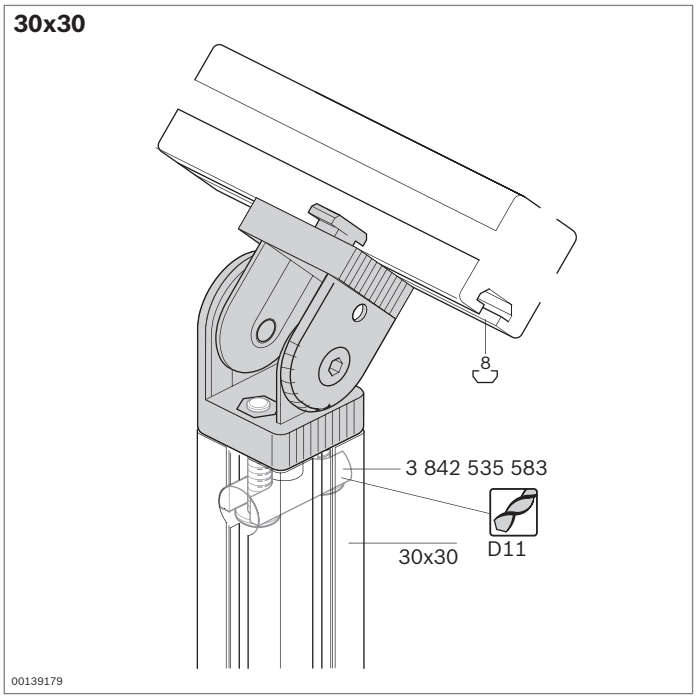
Bearing pedestal (p. 4-8)



Swivel fastening (p. 4-9)



Clamping lever, star knob (p. 4-10)

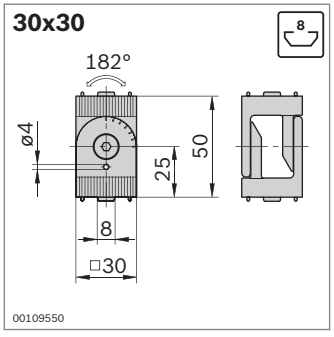


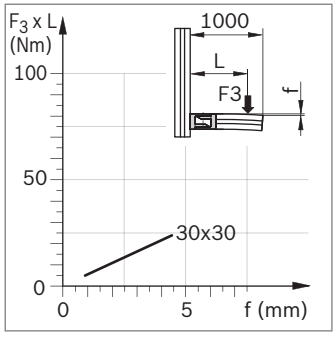
Joint 30x30

designLINE

- For movable or rigid profile connections at any angle
- Swivel range 182°
- With a 15° graduation
- Locking by clamping (5 Nm) or fixing with pins (15 Nm)
- *designLINE* version with special silver paint (RAL 9006) for an attractive, high-quality design
- Profile finishing:
  Through hole D11 for end face profile connections

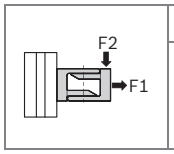
Required accessories:
Bolt connector D11 for end face connections





FS1
DIN 7984
M6x12
8

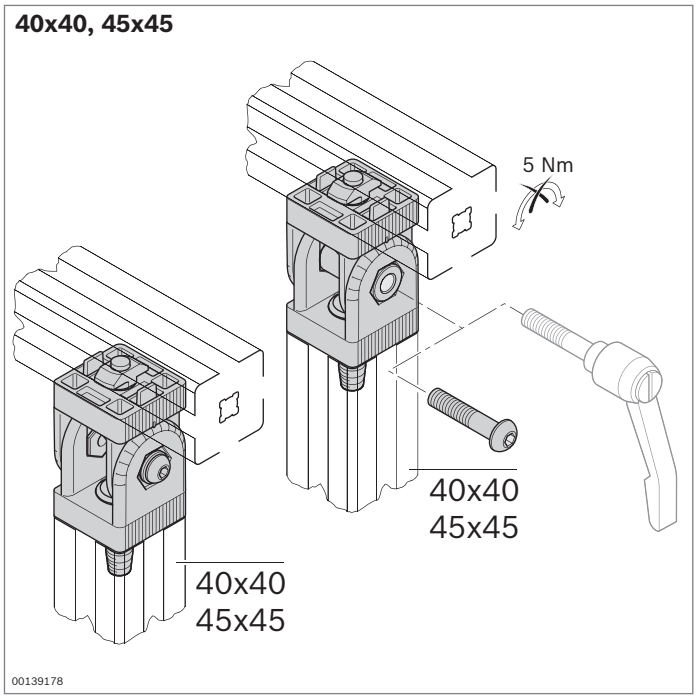
FS2
DIN 934
M5



F1 (N)	**F2** (N)
10 000	600

Joint 30x30	**Slot**	**ESD**	**No.**	**FS**
Standard	8		**3 842 502 683**	2xFS1, 4xFS2
designLINE	8		**3 842 538 683**	2xFS1, 4xFS2

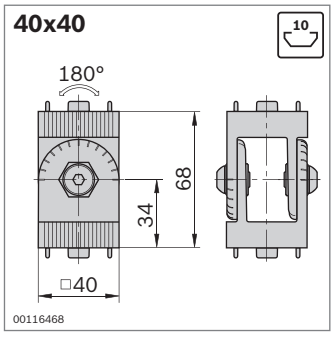
Material:	Standard: diecast zinc *designLINE*: painted, RAL 9006 Fastening material: steel, galvanized, chromated transparent
Scope of delivery:	Incl. fastening material (FS)

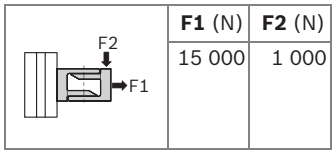


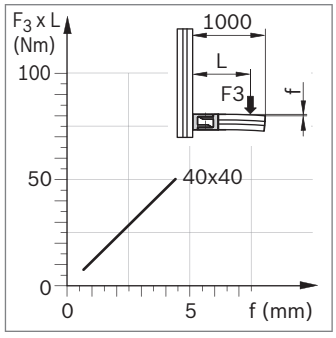
Joint 40x40, 40x40 support, 45x45, 45x45 support

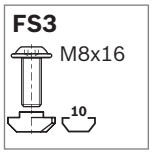
designLINE

- For movable or rigid profile connections at any angle
- Swivel range 180°
- With a 15° graduation
- Clamping and convenient adjustment of “support” joint using a clamping lever (5 Nm)
- *designLINE* version with special silver paint (RAL 9006) for an attractive, high-quality design







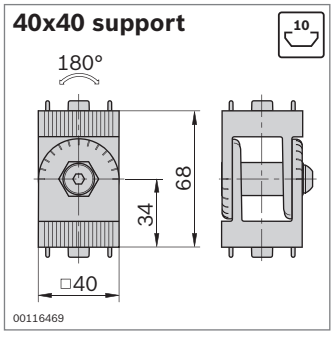


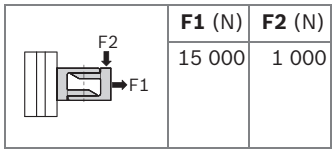


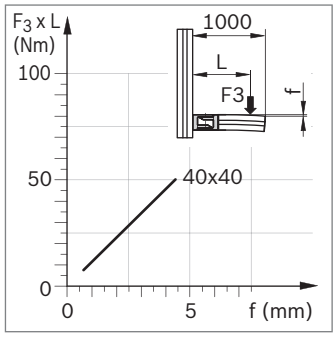
Joint 40x40	Slot	ESD	No.	FS
Standard	10		**3 842 543 401**	2xFS3, 2xFS4
designLINE	10		**3 842 538 684**	2xFS3, 2xFS4

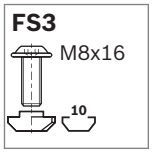
Material: Standard: diecast aluminum
designLINE: painted, RAL 9006
Fastening material: steel, galvanized, chromated transparent

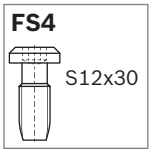
Scope of delivery: Incl. fastening material (FS)











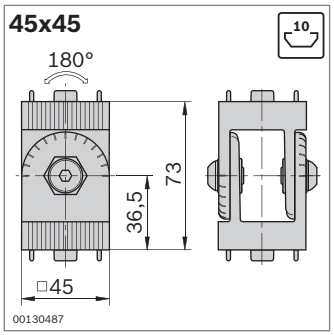
Joint 40x40 support	Slot	ESD	No.	FS
Standard	10		**3 842 543 402**	2xFS3, 2xFS4
designLINE	10		**3 842 538 685**	2xFS3, 2xFS4

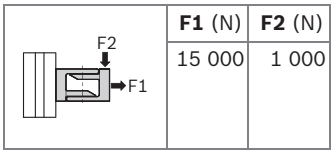
Material: Standard: diecast aluminum
designLINE: painted, RAL 9006
Fastening material: steel, galvanized, chromated transparent

Scope of delivery: Incl. fastening material (FS)

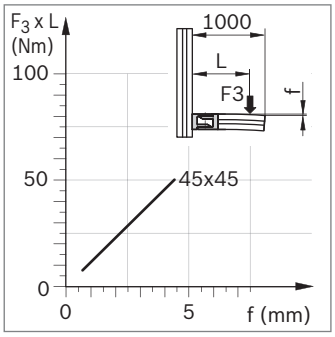
Clamping lever	No.
For joint 40x40 support	**3 842 516 847**

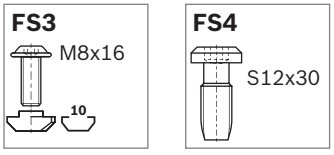
Material: Diecast zinc, black polymer coating





F1 (N)	**F2** (N)
15 000	1 000

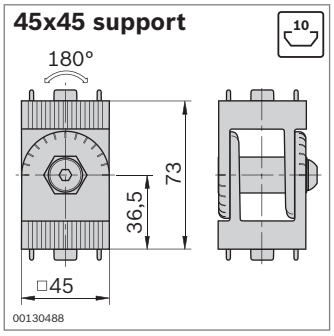


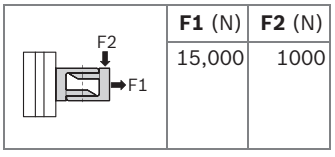


Joint 45x45	**Slot**	**ESD**	**No.**	**FS**
Standard	10		**3 842 543 403**	2xFS3, 2xFS4
designLINE	10		**3 842 538 686**	2xFS3, 2xFS4

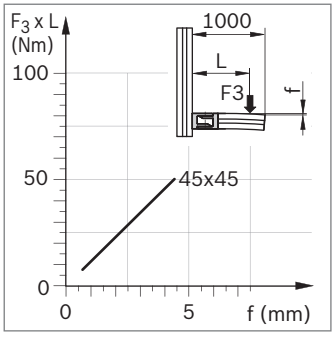
Material: Standard: diecast aluminum
designLINE: painted, RAL 9006
Fastening material: steel, galvanized, chromated transparent

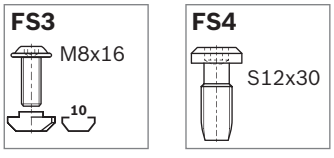
Scope of delivery: Incl. fastening material (FS)





F1 (N)	**F2** (N)
15,000	1000





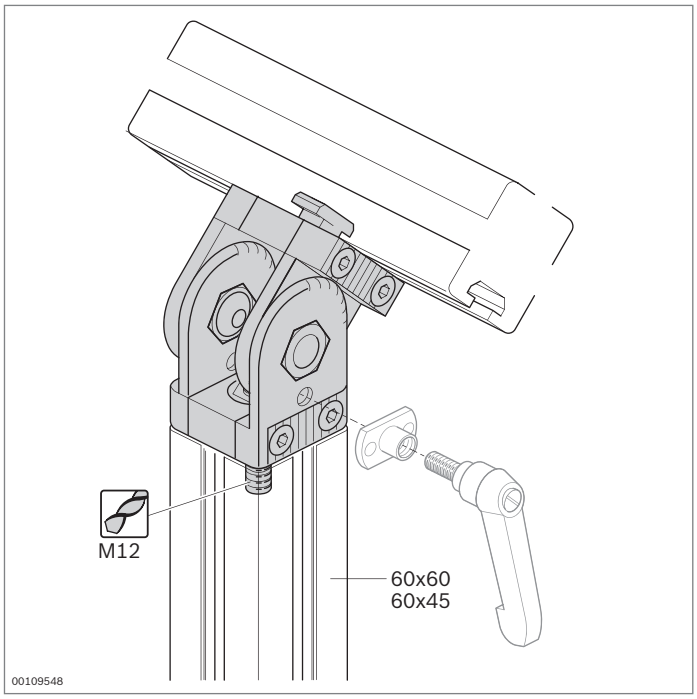
Joint 45x45 support	**Slot**	**ESD**	**No.**	**FS**
Standard	10		**3 842 543 404**	2xFS3, 2xFS4
designLINE	10		**3 842 538 687**	2xFS3, 2xFS4

Material: Standard: diecast aluminum
designLINE: painted, RAL 9006
Fastening material: steel, galvanized, chromated transparent

Scope of delivery: Incl. fastening material (FS)

Clamping lever	**No.**
For joint 45x45 support	**3 842 538 607**

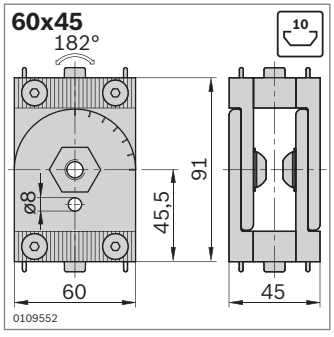
Material: Diecast zinc, black polymer coating

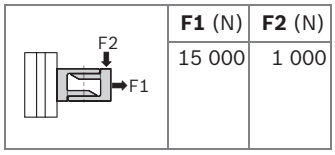


Joint 60x45, 60x60

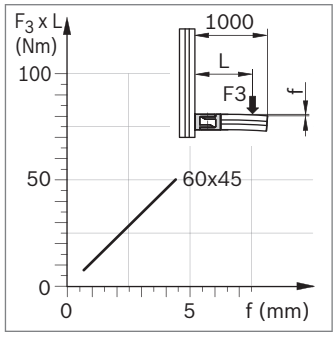
designLINE

- For movable or rigid profile connections at any angle
- Swivel range 182°
- With a 15° graduation
- Locking by clamping (5 Nm) or fixing with pins (15 Nm)
- The joint can be adjusted using a clamping lever.
- *designLINE* version with special silver paint (RAL 9006)
- Profile finishing:
  Thread cutting (M12) in central bore for end connection



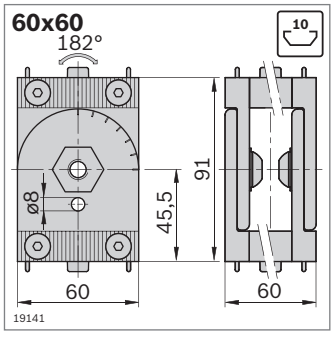


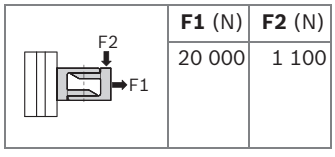
F1 (N)	**F2** (N)
15 000	1 000



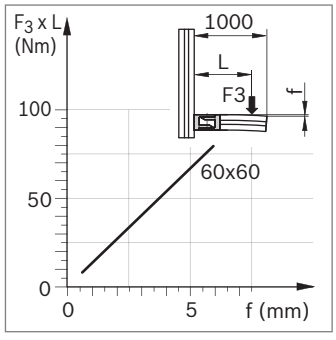
FS5
DIN 7984 M12x40
DIN 125 A8,4

FS6
DIN 7984 M8x20





F1 (N)	**F2** (N)
20 000	1 100



FS5
DIN 7984 M12x40
DIN 125 A8,4

FS6
DIN 7984 M8x20

Joint 60x45	**Slot**	**ESD**	**No.**	**FS**
Standard	10		**3 842 502 688**	2xFS5, 2xFS6
designLINE	10		**3 842 539 799**	2xFS5, 2xFS6

Material: Standard: diecast zinc
designLINE: painted, RAL 9006
Fastening material: steel, galvanized, chromated transparent

Scope of delivery: Incl. fastening material (FS)

Clamping lever	**No.**
For joint 60x45	**3 842 505 144**

Material: Diecast zinc, black polymer coating

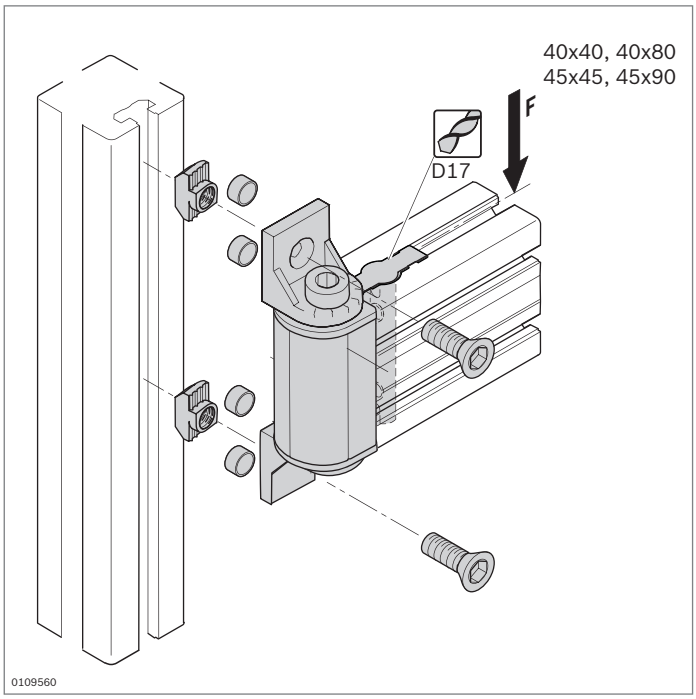
Joint 60x60	**Slot**	**ESD**	**No.**	**FS**
Standard	10		**3 842 502 687**	2xFS5, 2xFS6
designLINE	10		**3 842 539 800**	2xFS5, 2xFS6

Material: Standard: diecast zinc
designLINE: painted, RAL 9006
Fastening material: steel, galvanized, chromated transparent

Scope of delivery: Incl. fastening material (FS)

Clamping lever	**No.**
For joint 60x60	**3 842 505 144**

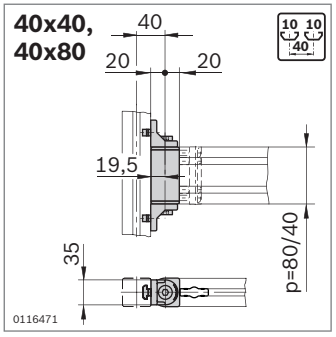
Material: Diecast zinc, black polymer coating



Swivel bearing

designLINE

- Suitable for swiveling right-angled profile connections, e.g. for constructing supporting arms or doors
- *designLINE* version with special silver paint (RAL 9006) for an attractive, high-quality design
- Profile finishing:
  Through hole D17



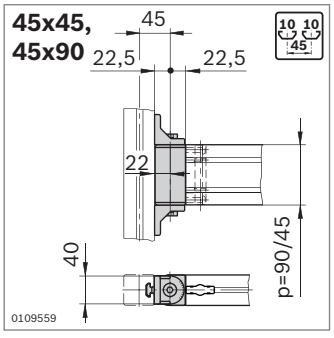
Profile	F / L
	M_{max} = F x L (Nm)
40x40	40
40x80	130

FS1
DIN7991
M8x20
10

Swivel bearing		p (mm)	ESD	No.	FS
40x40	Standard	40		**3 842 532 208**	2xFS1
	designLINE	40		**3 842 538 688**	2xFS1
40x80	Standard	80		**3 842 532 209**	2xFS1
	designLINE	80		**3 842 538 689**	2xFS1

Material: Standard: diecast aluminum
designLINE: painted (RAL 9006)
Fastening material: steel, galvanized, chromated transparent
Cap: PA, black

Scope of delivery: Incl. caps, bolt connectors, fastening material (FS)



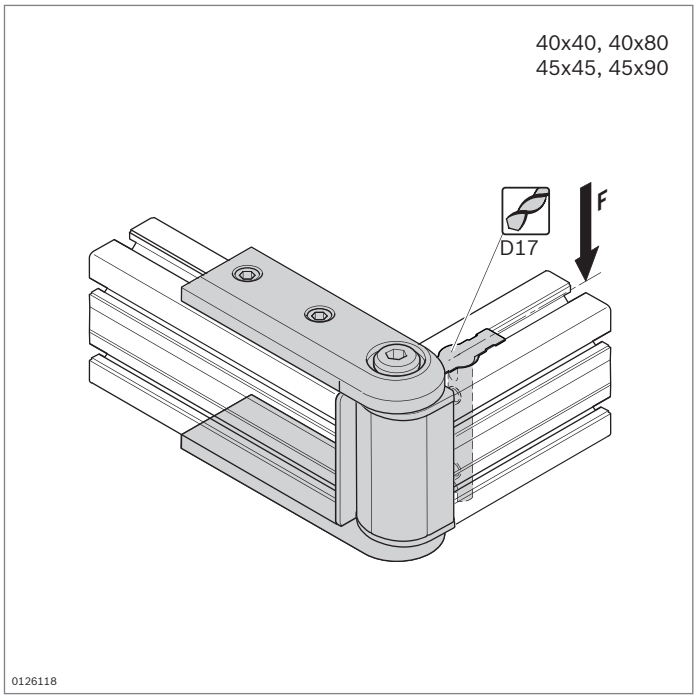
Profile	F / L
	M_{max} = F x L (Nm)
45x45	50
45x90	150

FS1
DIN7991
M8x20
10

Swivel bearing		p (mm)	ESD	No.	FS
45x45	Standard	45		**3 842 522 634**	2xFS1
	designLINE	45		**3 842 538 690**	2xFS1
45x90	Standard	90		**3 842 522 633**	2xFS1
	designLINE	90		**3 842 538 691**	2xFS1

Material: Standard: diecast zinc
designLINE: painted (RAL 9006)
Fastening material: steel, galvanized, chromated transparent
Cap: PA, black

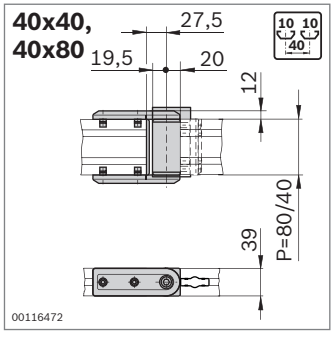
Scope of delivery: Incl. caps, bolt connectors, fastening material (FS)



Supporting arm joint

designLINE

- Suitable for swiveling end connections, e.g. for the construction of supporting arms
- *designLINE* version with special silver paint (RAL 9006) for an attractive, high-quality design
- Profile finishing:
  Through hole D17



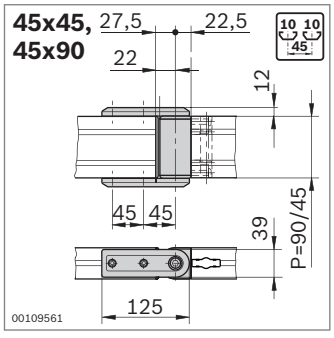
Profile	F, L
	M_{max} = **F x L** (Nm)
40x40	40
40x80	130

FS1
ISO4762
M6x16
10

Supporting arm joint		p (mm)	ESD	No.	FS
40x40	Standard	40		**3 842 532 206**	4xFS1
	designLINE	40		**3 842 538 692**	4xFS1
40x80	Standard	80		**3 842 532 207**	4xFS1
	designLINE	80		**3 842 538 693**	4xFS1

Material: Standard: diecast zinc
designLINE: painted (RAL 9006)
Cap: PA, black
Fastening material: steel, galvanized, chromated transparent

Scope of delivery: Incl. caps, bolt connectors, fastening material (FS)



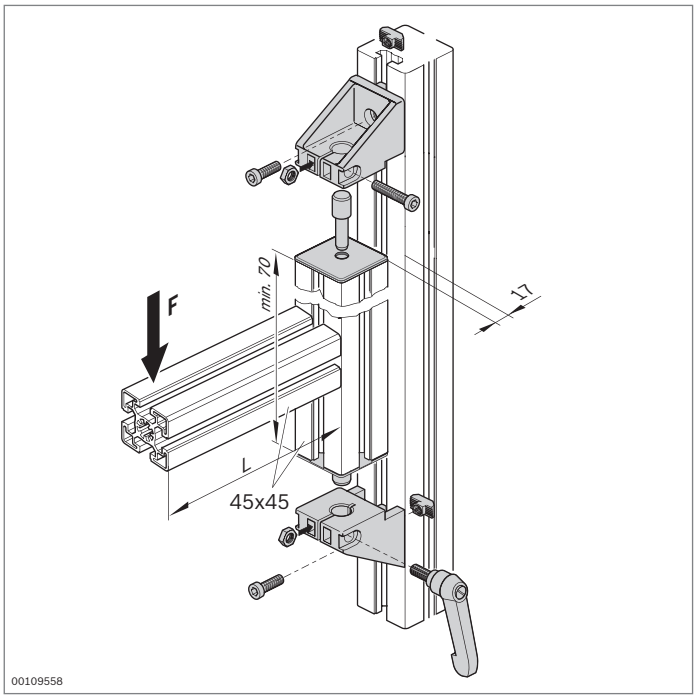
Profile	F, L
	M_{max} = **F x L** (Nm)
45x45	50
45x90	150

FS1
ISO4762
M6x16
10

Supporting arm joint		p (mm)	ESD	No.	FS
45x45	Standard	45		**3 842 521 263**	4xFS1
	designLINE	45		**3 842 538 694**	4xFS1
45x90	Standard	90		**3 842 521 262**	4xFS1
	designLINE	90		**3 842 538 695**	4xFS1

Material: Standard: diecast zinc
designLINE: painted (RAL 9006)
Cap: PA, black
Fastening material: steel, galvanized, chromated transparent

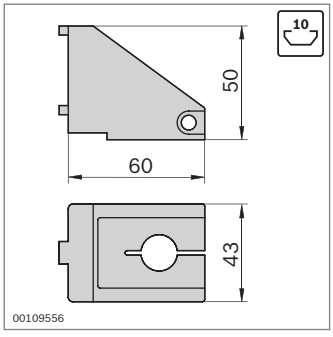
Scope of delivery: Incl. caps, bolt connectors, fastening material (FS)

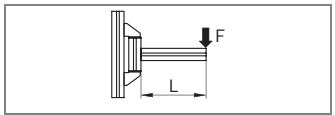


Bearing pedestal

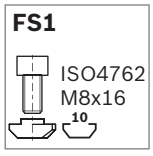
10 *designLINE*

- Bearing pedestal for heavy constructions which have to be swiveled
- *designLINE* version with special silver paint (RAL 9006) for an attractive, high-quality design



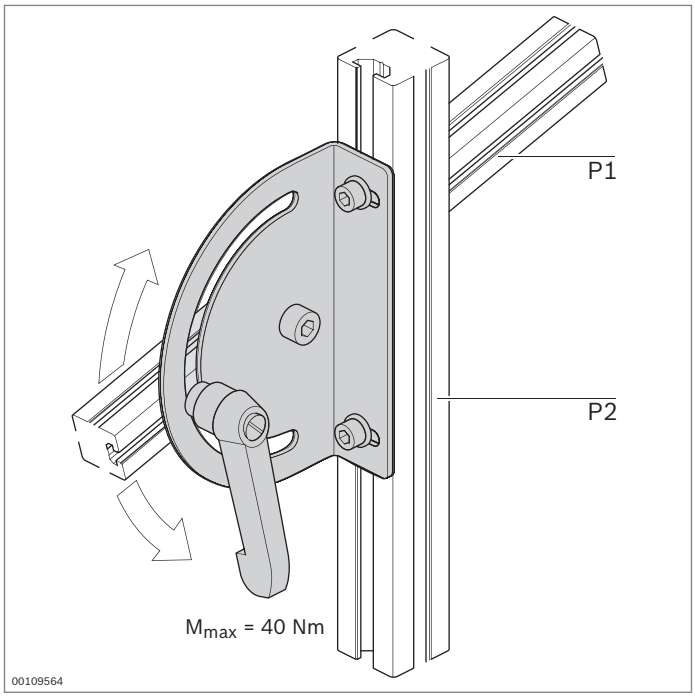


$M_{max} = F_{max} \times L$ (Nm)
400



Bearing pedestal	Slot	No.	FS
Standard	10	**3 842 346 595**	2xFS1
designLINE	10	**3 842 538 660**	2xFS1

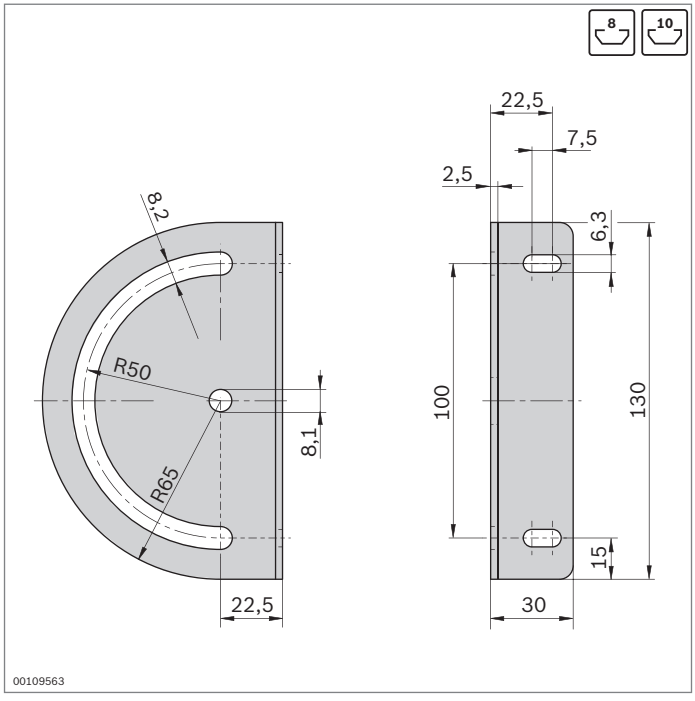
Material:	Standard: cast brass, nickel-plated *designLINE:* painted (RAL 9006) Fastening material: steel, galvanized, chromated transparent Clamping lever handle: diecast zinc, black polymer coating Cap: PA
Scope of delivery:	Incl. fastening material (FS), 2x caps, 2x bolts, clamping lever (and additional standard part for clamping the bearing pedestal)



Swivel fastening 180°

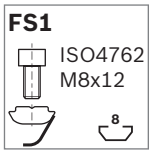


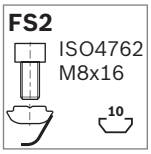
- The swivel fastening is designed for shelves, etc. which need to be positioned at an angle of ± 90°.

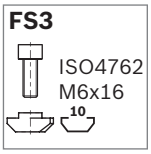


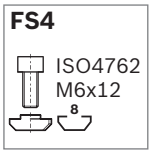
Swivel fastening 180°	P1/P2	ESD	No.	FS
	8 / 8 8 / 10	ESD	**3 842 538 275**	FS1 2xFS3 2xFS4 2xFS5
	10 / 8 10 / 10	ESD	**3 842 538 276**	FS2 2xFS3 2xFS4 2xFS5

Material:	Swivel fastening: steel, galvanized, chromated transparent Clamping lever: diecast zinc, black polymer coating
Scope of delivery:	Incl. fastening material (FS), clamping lever with disk and swivel-in sliding block with spring

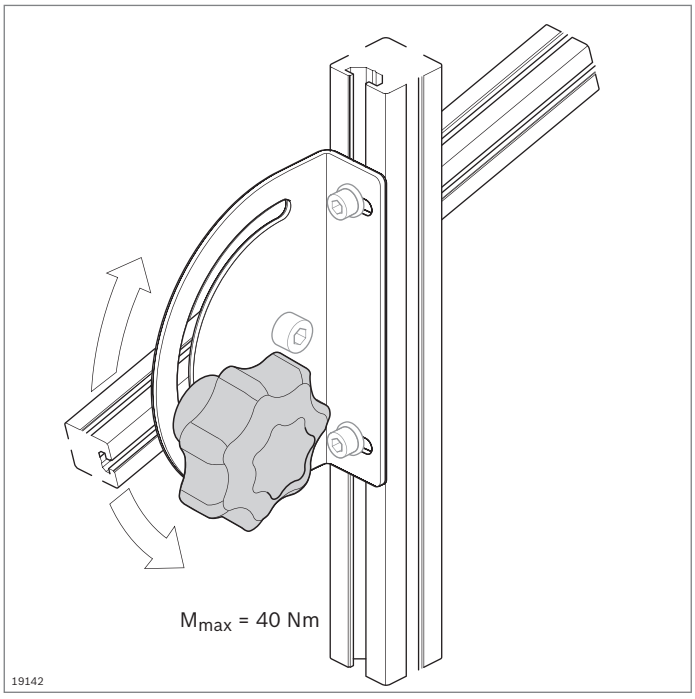










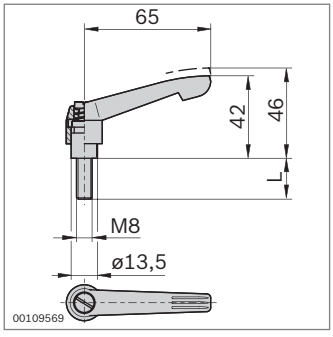


Clamping lever, star knob

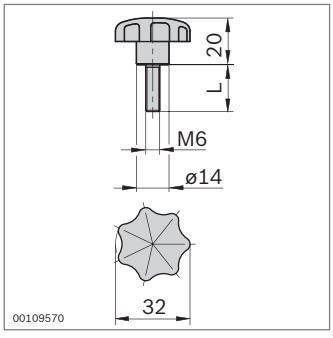


▶ Clamping elements for adjustable connections

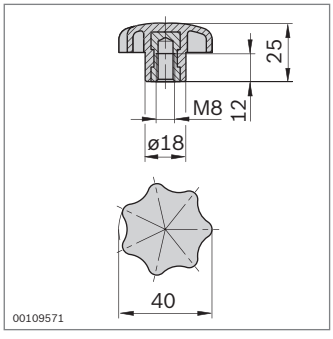
Accessories:
Screws and sliding blocks; see fastening material (p. 4-9)



Clamping lever	**L** (mm)	**No.**
	12	**3 842 516 845**
	20	**3 842 516 846**
	40	**3 842 516 847**
	45	**3 842 538 607**
	55	**3 842 516 848**
Material:	Clamping lever: diecast zinc, black polymer coating Steel elements: galvanized, strength class 5.8	

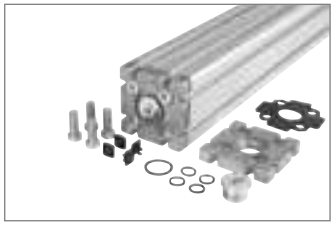


Star knob M6	**L** (mm)	**No.**
	15	**3 842 516 849**
	20	**3 842 516 850**
Material:	Star knob: PA, black Steel elements: galvanized, strength class 5.8	

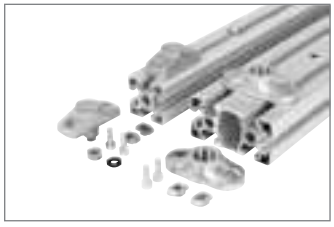


Star knob M8		**No.**
		3 842 516 851
Material:	Star knob: PA, black Steel elements: galvanized, strength class 5.8	

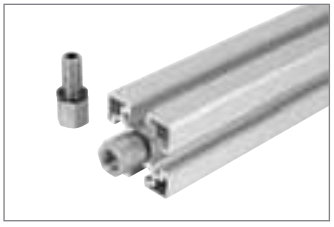
Air-supply elements



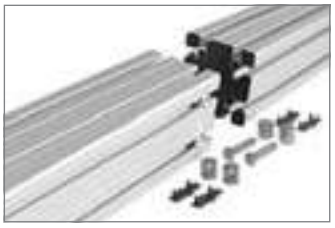
Flanged plate (p. 5-3)



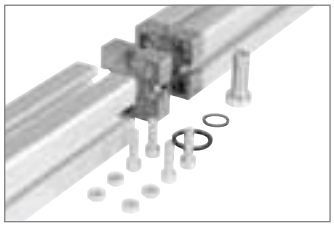
Connection piece (p. 5-4)



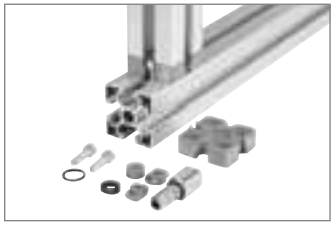
Connection screw fitting M12-1/4" (p. 5-4)



Longitudinal end connector (p. 5-5)

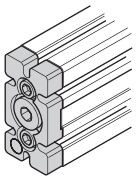


Longitudinal end connector 45 Pneu (p. 5-6)

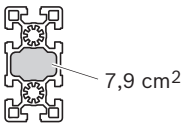


T-connector 45 Pneu (p. 5-6)

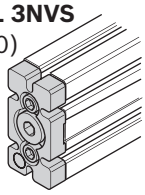
45x90
(p. 2-41)



45x90

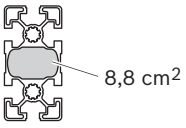


45x90L
45x90L 2N
45x90L 3NVS
(p. 2-40)



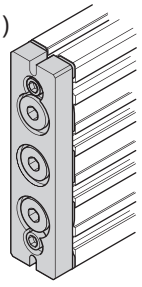
19585

45x90L

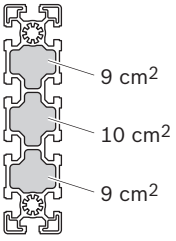


00109731

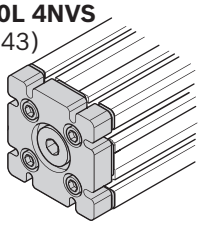
45x180
(p. 2-41)



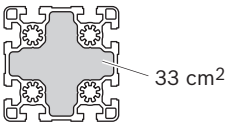
45x180



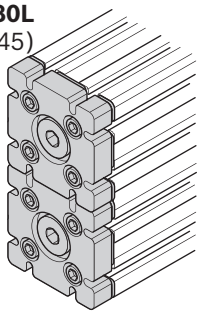
90x90L
90x90L 4N
90x90L 4NVS
(p. 2-43)



90x90L

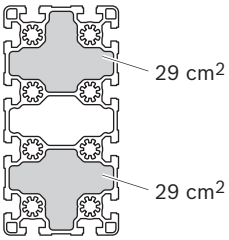


90x180L
(p. 2-45)



19588

90x180L



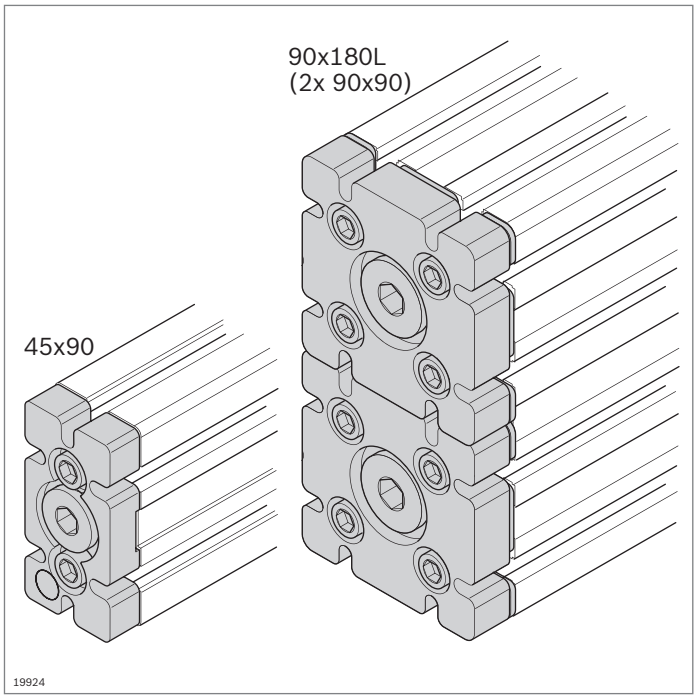
00109734

Air-supply elements

- Rexroth **strut profiles** can be used as compressed-air lines and reservoirs using the profile hollow chambers or central bores
- **Flanged plate** for end closing of profiles (p. 5-3)
- Compressed-air introduction or removal at the flanged plate, **connection piece**, or **connection screw fitting** (p. 5-4)
- Air-tight profile connections with **longitudinal end connectors or T-connectors** (p. 5-5, 5-6)
- The use of heavy-duty profiles is preferable for increased leaktightness demands (e.g. underwater applications)

The complete range of Rexroth pneumatic products can be found at www.boschrexroth.com/pneumatics.

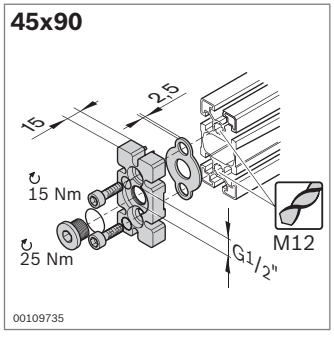




Flanged plate



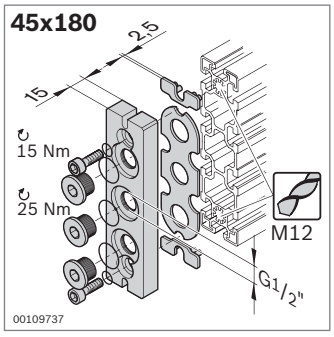
- For sealing the ends of hollow chambers to convert profiles into compressed-air lines
- For compressed-air introduction or removal when screw plugs are replaced by pneumatic screw fittings
- Profile finishing: thread cutting M12 in the central bores
- For a maximum pressure (p_{max}) of 8 bar



FS1

DIN 7984
M12x30

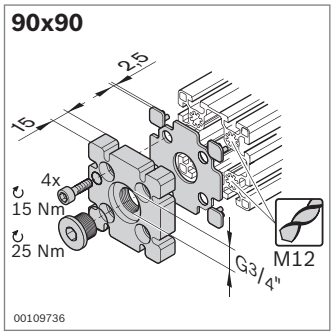
Flanged plate		No.	FS
45x90		**3 842 523 097**	2xFS1
Material:	Flanged plate: diecast aluminum Seal: NBR Fastening material: steel, galvanized, chromated transparent		
Scope of delivery:	Incl. fastening material (FS), screw plug, seals		



FS2

DIN 7984
M12x20

Flanged plate		No.	FS
45x180	2	**3 842 535 721**	2xFS2
Material:	Flanged plate: aluminum Seal: NBR Fastening material: steel, galvanized, chromated transparent		
Scope of delivery:	Incl. fastening material (FS), 2x spacer, 3x screw plug, seals		

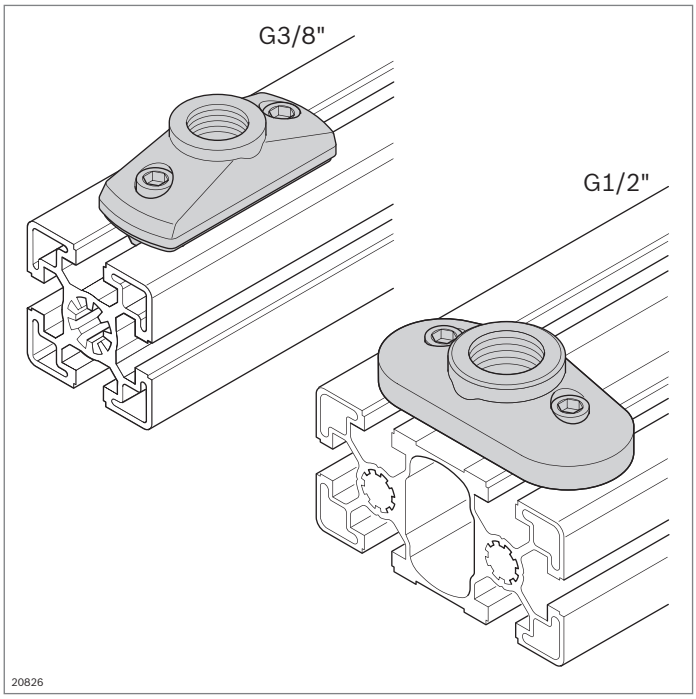


FS1

DIN 7984
M12x30

Flanged plate		No.	FS
90x90		**3 842 523 098**	4xFS1
Material:	Flanged plate: diecast aluminum Seal: NBR Fastening material: steel, galvanized, chromated transparent		
Scope of delivery:	Incl. fastening material (FS), 4x spacer, screw plug, seals		

Note: Only suitable for light profiles 90x90L and 90x180L.

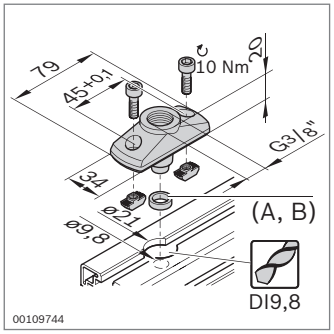


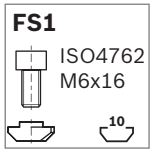
Connection piece
Connection screw fitting M12-1/4"

10

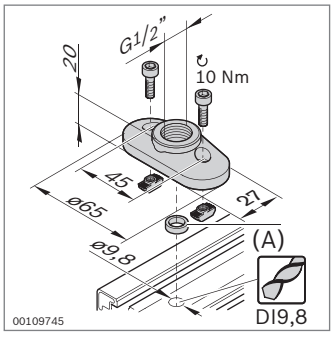
Connection piece

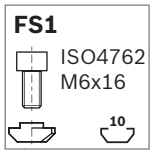
- For compressed-air introduction or removal at any point along the profile
- G3/8" for connection at central hole
- G1/2" for connection at hollow chamber
- Suitable for light and standard profiles
- Profile finishing: blind hole DI9.8; blind hole ø 21 mm (drilling jig **3 842 528 574**, p. 14-3)
- For a maximum pressure (p_{max}) of 8 bar



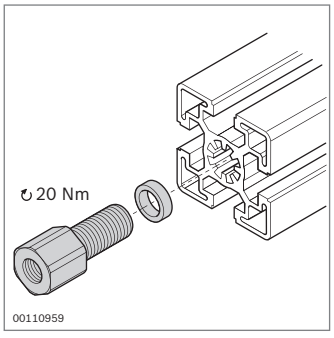


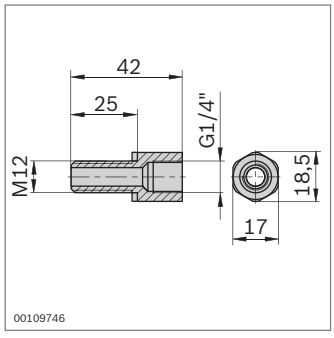
Connection piece		No.	FS
G3/8"		**3 842 523 092**	2xFS1
Material:	Connection piece: diecast aluminum Seal: NBR		
Scope of delivery:	Incl. fastening material, seals (**A**, **B**)		
Accessories:	Seals **A**, **B** (p. 5-6)		





Connection piece		No.	FS
G1/2"		**3 842 352 085**	2xFS1
Material:	Connection piece: diecast zinc Seal: NBR		
Scope of delivery:	Incl. fastening material, seal (**A**)		
Accessories:	Seal **A** (p. 5-6)		

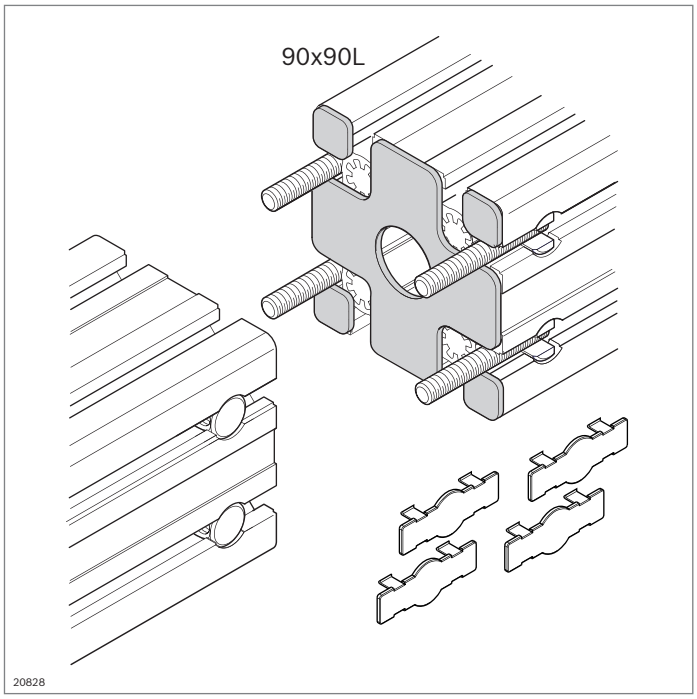




Connection screw fitting M12-1/4"

- For screw fitting in central hole
- Profile finishing: M12
- For a maximum pressure (p_{max}) of 8 bar

Connection screw fitting		No.
M12-1/4"	10	**3 842 535 719**
Material:	Connection screw fitting: steel, galvanized, chromated transparent Seal: PVC, hard	
Scope of delivery:	Incl. seal	

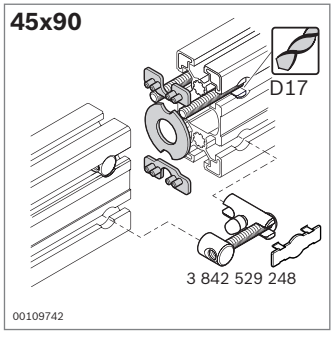


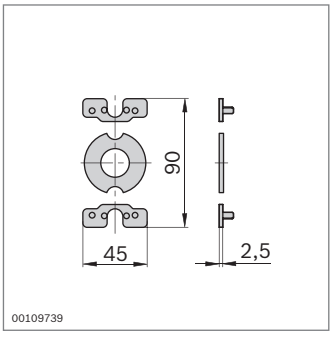
Longitudinal end connection



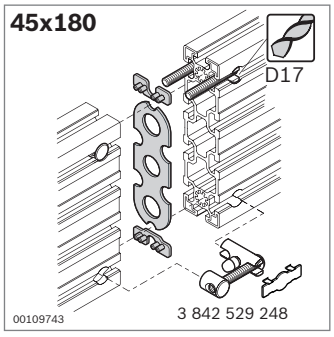
- Seal for end-to-end connection of profiles carrying compressed air
- Profile finishing: through hole D17 (45x90, 45x180); blind hole LF (90x90L)
- For a maximum pressure (p_{max}) of 8 bar

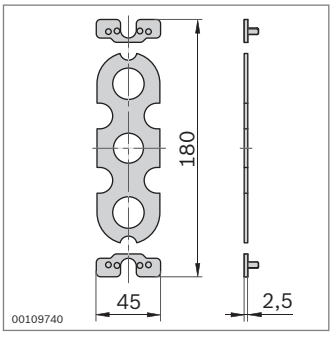
Required accessories:
Longitudinal end connector for profile connection (p. 3-53)



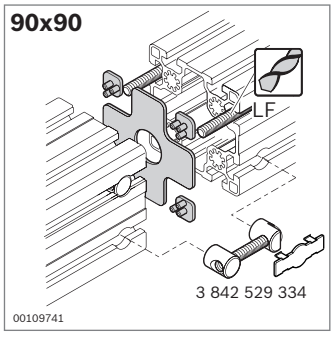


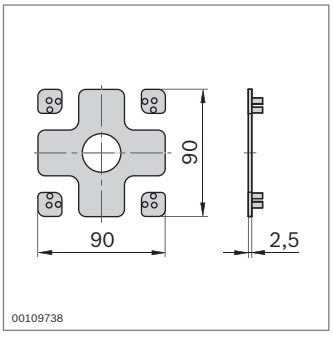
Longitudinal end connection		No.
45x90		**3 842 508 087**
Material:	Seal: PUR Spacer: PA	
Scope of delivery:	Seal, 2x spacer	





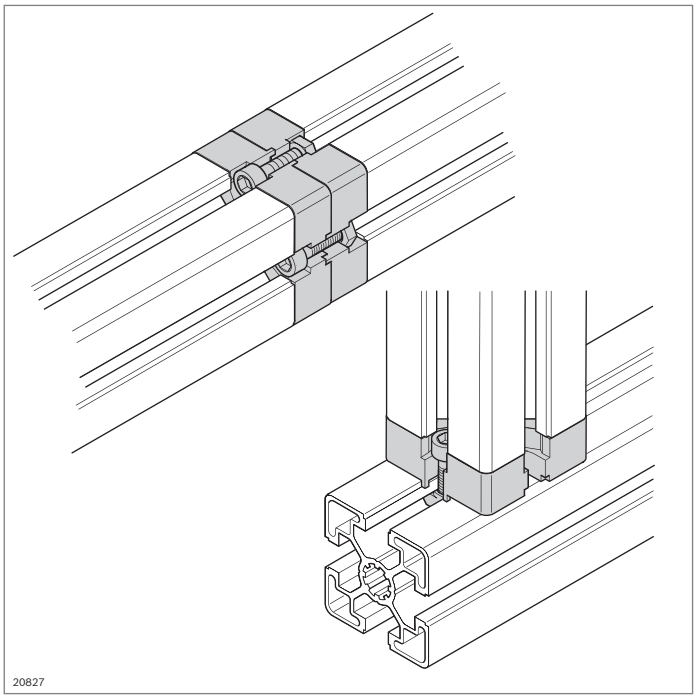
Longitudinal end connection		No.
45x180		**3 842 508 088**
Material:	Seal: NBR Spacer: PA	
Scope of delivery:	Seal, 2x spacer	





Longitudinal end connection		No.
90x90		**3 842 510 145**
Material:	Seal: NBR Spacer: PA	
Scope of delivery:	Seal, 4x spacer	

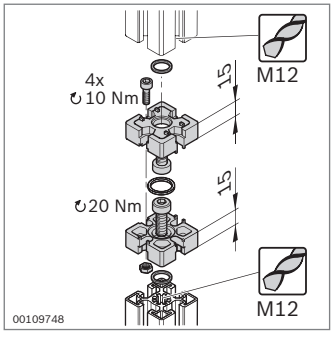
Note: Only suitable for light profile 90x90L.

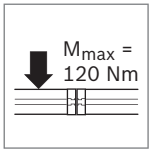


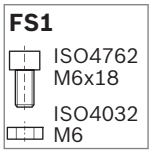
Longitudinal end connector 45 Pneu
T-connector 45 Pneu, seal

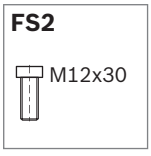
10

- Longitudinal end connector 45 Pneu for end face mechanical and pneumatic connections of two 45x45 or 45x45L profiles to convert the central bore into a compressed-air line
- T-connector 45 Pneu for mechanical and pneumatic connections of two 45x45 or 45x45L profiles at a 90° angle to convert the central bore into a compressed-air line
- Profile finishing: M12 in central bore; blind hole DI9.8; blind hole ø 21 mm (drilling jig **3 842 528 574**, p. 14-3)
- For a maximum pressure (p_{max}) of 8 bar

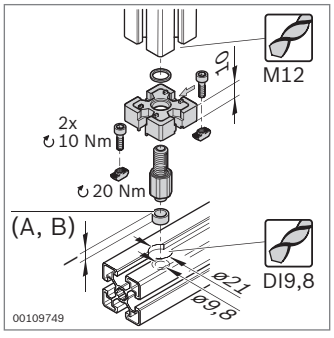


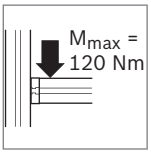


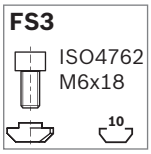




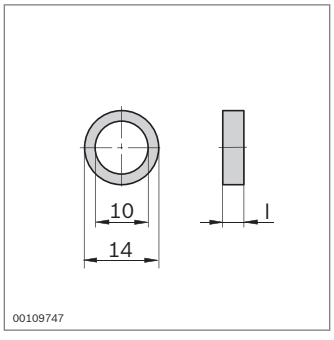
Longitudinal end connector		No.	FS
45 Pneu		**3 842 523 094**	4xFS1, 2xFS2
Material:	Longitudinal end connector: diecast aluminum Seal: NBR		
Scope of delivery:	Incl. fastening material, sealing rings		







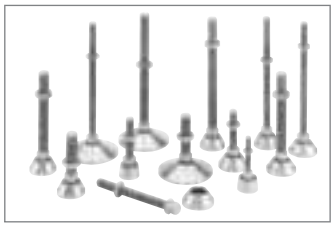
T-connector		No.	FS
45 Pneu		**3 842 523 093**	2xFS3
Material:	T-connector: diecast aluminum Seal: NBR		
Scope of delivery:	Incl. fastening material, seals (**A**, **B**) for standard and light profiles		



- Seal for connection piece and T-connector

Seal		l (mm)		No.
A	For standard profiles	4	10	**3 842 503 242**
B	For light profiles	7	10	**3 842 523 102**
Material:	NBR			

Feet and wheels



Modular leveling feet (p. 6-2)



Leveling foot, foot damping ring (p. 6-4)

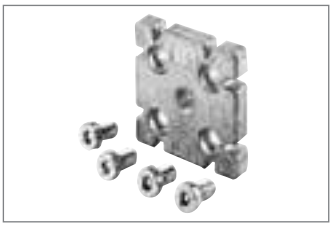
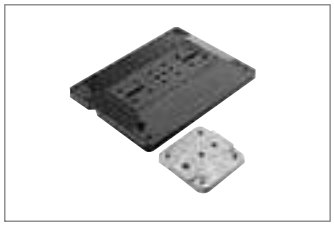


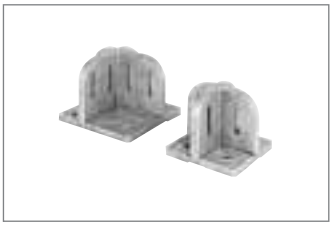
Plate (p. 6-6)



Base plate, steel (p. 6-8)



Base plate (p. 6-10)



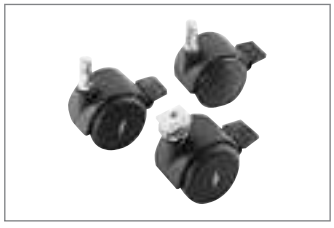
Base plate (p. 6-11)



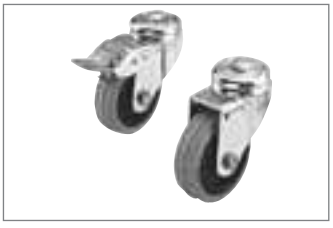
Foot (p. 6-12)



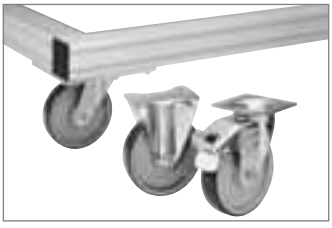
Foot, stainless steel (p. 6-13)



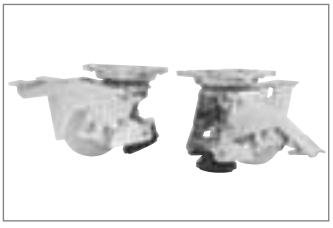
Double wheel (p. 6-15)



Roller (p. 6-16)



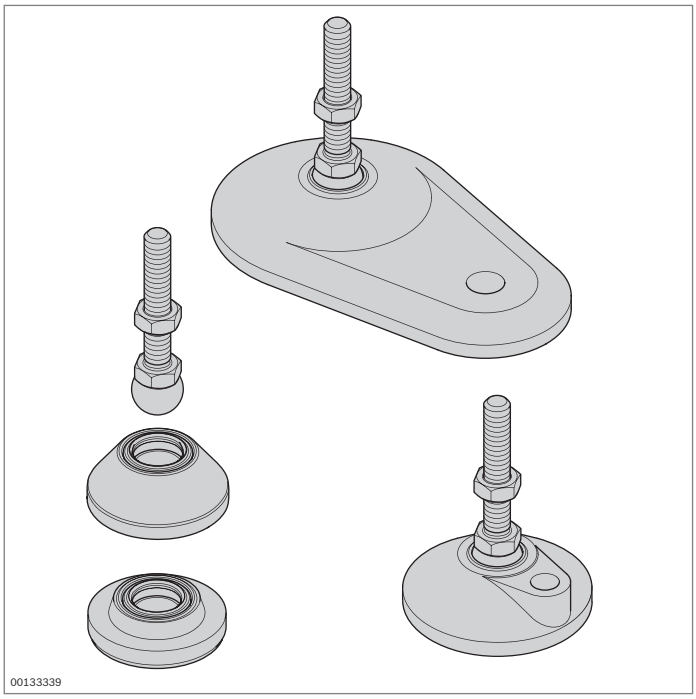
Heavy-duty wheel (p. 6-18)



Lifting wheel (p. 6-20)



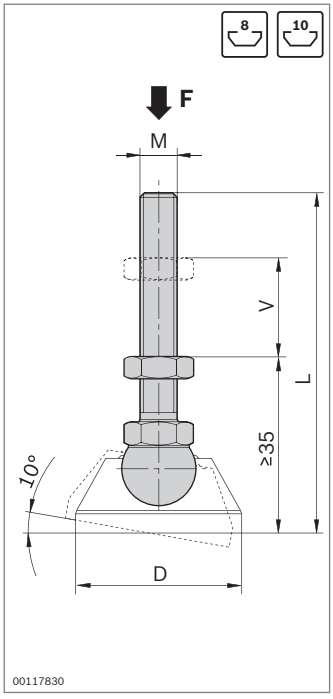
Roller with mounting flange (p. 6-21)



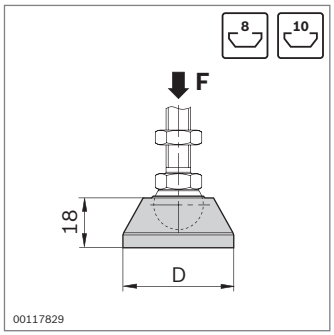
Modular leveling feet

- Leveling feet for compensating irregularities in the floor up to 10°
  - Modular system, various combinations possible
  - Spindles and base plates can be combined as desired
  - Base plates with screw hole for simple screw fitting to the floor
- The damping plate prevents the transfer of vibrations and enables a defined conduction of voltages via a set of grounding components (p. 17-2)
- Profile finishing: threading M in central hole

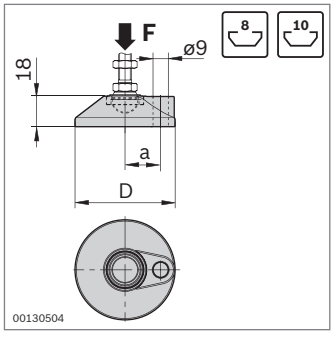
Accessories: bearing ring (p. 6-15)



Spindle	F (N)	M	L (mm)	V (mm)	ESD		No.
Steel, stainless	10000	M8	75	20		20	**3 842 536 811**
	20000	M12	85	30		20	**3 842 536 812**
	20000	M12	145	80		20	**3 842 537 223**
	20000	M12	200	135		20	**3 842 537 225**
	30,000	M16	85	20		20	**3 842 537 227**
	30,000	M16	145	80		20	**3 842 537 229**
	30,000	M16	200	135		20	**3 842 537 231**
Steel, galvanized	10000	M8	75	20		20	**3 842 537 220**
	20000	M12	85	30		20	**3 842 537 222**
	20000	M12	145	80		20	**3 842 537 224**
	20000	M12	200	135		20	**3 842 537 226**
	30,000	M16	85	20		20	**3 842 537 228**
	30,000	M16	145	80		20	**3 842 537 230**
	30,000	M16	200	135		20	**3 842 537 232**

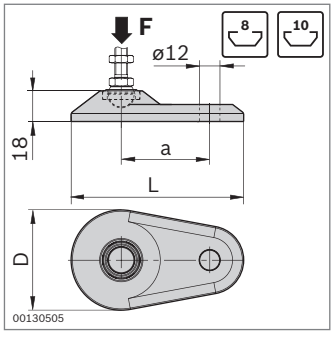


Base plate	F (N)	D (mm)	ESD		No.
Steel, stainless	20000	29	⚠	20	**3 842 536 694**
	30,000	39	⚠	20	**3 842 536 695**
	30,000	44	⚠	20	**3 842 536 696**
	30,000	59	⚠	20	**3 842 538 673**
	30,000	79	⚠	20	**3 842 537 206**
Diecast zinc, black powder coating	20000	29		20	**3 842 538 674**
	30,000	39		20	**3 842 538 675**
	30,000	44		20	**3 842 538 676**
	30,000	59		20	**3 842 538 677**
	30,000	79		20	**3 842 538 678**
PA, black	5000	29		20	**3 842 538 832**
	9000	39		20	**3 842 538 833**
	9000	44		20	**3 842 538 834**
	9000	59		20	**3 842 538 835**
	9000	79		20	**3 842 538 836**



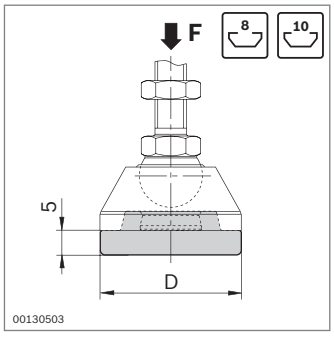
Base plate with screw hole	F (N)	D (mm)	a (mm)		No.
	30,000	59	21	20	**3 842 538 932**
	30,000	79	31	20	**3 842 538 934**

Material: Diecast zinc, black powder coating



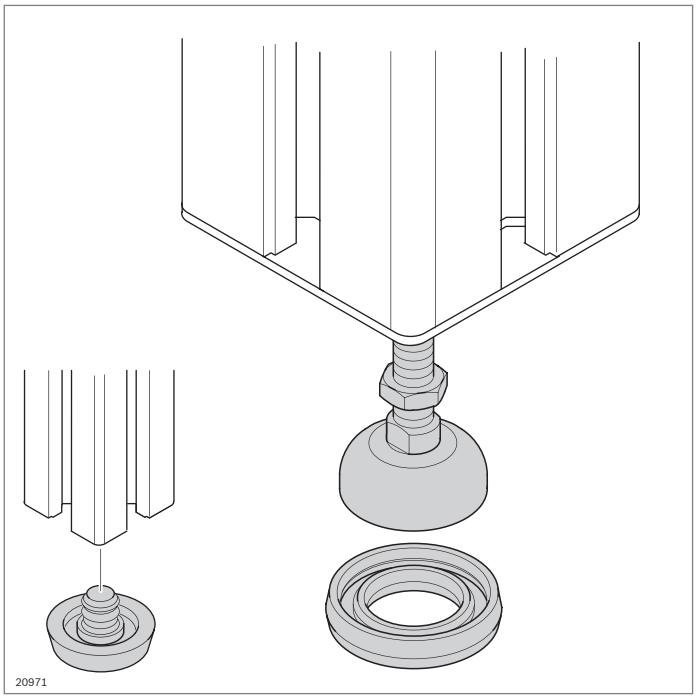
Oval base plate with screw hole	F (N)	D (mm)	a (mm)	L (mm)		No.
	30,000	59	52	100	20	**3 842 538 679**
	30,000	79	65	130	20	**3 842 538 680**

Material: Diecast zinc, black powder coating



Damping plate	F (N)	D (mm)		No.
	1100	29	20	**3 842 538 555**
	1600	39	20	**3 842 538 556**
	2000	44	20	**3 842 538 557**
	2500	59	20	**3 842 538 558**
	2800	79	20	**3 842 538 559**

Material: PUR, black



Leveling foot, foot Damping ring

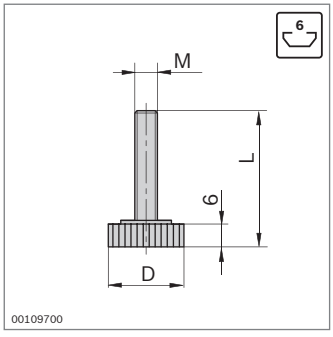
Leveling foot

- For compensating irregularities in the floor up to 5°
- Fully assembled spindle and base plate
- Profile finishing: threading in central hole

Damping ring

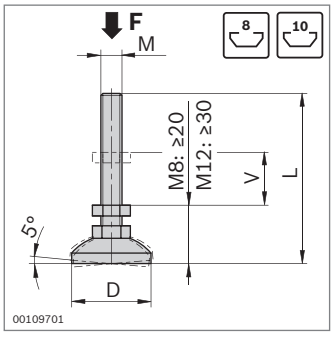
- The electrically insulating damping ring prevents the transfer of vibrations and enables a defined conduction of voltages via a set of grounding components (p. 17-2)

Accessories:
Bearing ring (p. 6-15); for the use of caps with hole



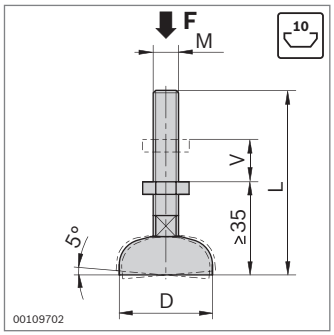
Leveling foot	M	D (mm)	L (mm)		No.
	M6	20	41	20	**3 842 518 743**

Material: Steel/plastic



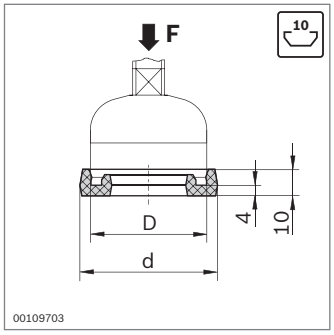
Leveling foot	F (N)	M	D (mm)	L (mm)	V (mm)	ESD		No.
	5000	M8	30	65	15	⚠	20	**3 842 502 257**
	8000	M12	30	72	14	⚠	20	**3 842 529 025**

Material: Steel, galvanized, chromated transparent



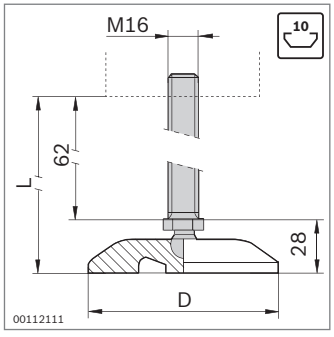
Leveling foot	**F** (N)	**M**	**D** (mm)	**L** (mm)	**V** (mm)	**ESD**		**No.**
	10000	M12	44	85	30		20	**3 842 352 061**
	20000	M16	44	145	80		20	**3 842 311 956**
	10000	M12	44	160	80		20	**3 842 536 470**
	10000	M12	58	85	30		20	**3 842 511 893**
	20000	M16	90	85	20		20	**3 842 311 950**
	20000	M16	90	145	80		20	**3 842 311 951**
	20000	M16	90	200	135		20	**3 842 527 186**

Material: Steel, galvanized, chromated transparent



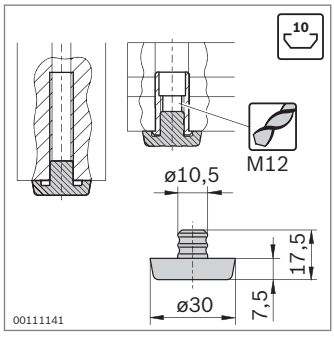
Damping ring	**F** (N)	**D** (mm)	**d** (mm)		**No.**
	1600	30	39	20	**3 842 529 024**
	2000	44	52	20	**3 842 521 817**
	2500	58	66	20	**3 842 522 301**
	3000	90	98	20	**3 842 522 303**

Material: PUR; natural, hardness: 70-80 Shore A



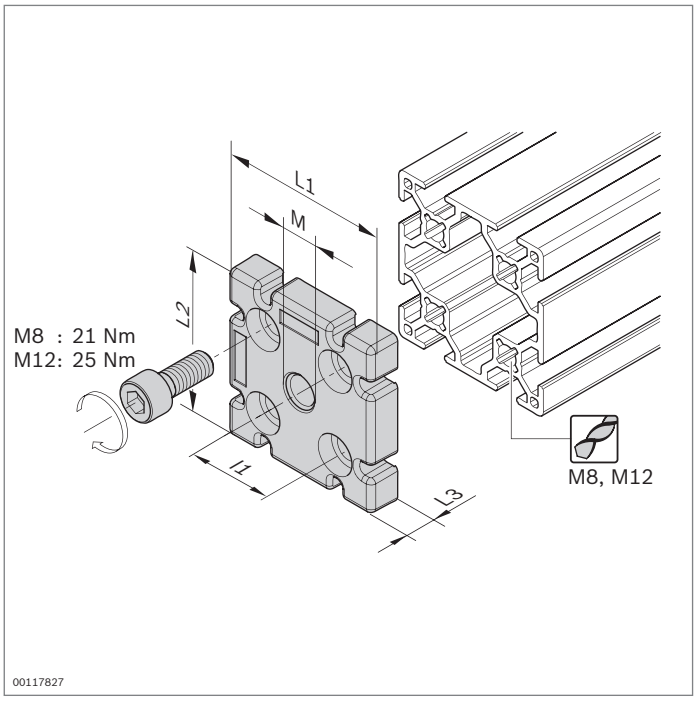
Leveling foot	**M**	**D** (mm)	**L** (mm)	**V** (mm)	**No.**
	M16	80	95	62	**3 842 533 310**

Material: Spindle: steel, stainless
Base plate: PA



Foot		**No.**
	100	**3 842 514 568**

Material: TPE, black



Plate



- For fastening leveling feet in profiles without a central hole
- For use as an end connector or T-connector
- Profile finishing: thread cutting in the central hole

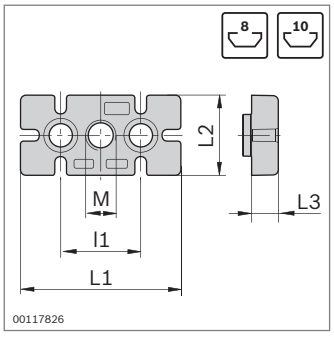


Plate	F (N)	M	L1 (mm)	l1 (mm)	L2 (mm)	L3 (mm)	No.	FS
30x60	8000	M12	60	30	30	11	**3 842 536 560**	2xFS1
40x80	10000	M12	80	40	40	15	**3 842 536 562**	2xFS2
45x90	20000	M16	90	45	45	15	**3 842 536 564**	2xFS2

Material: Plate: diecast aluminum
Fastening material: steel, galvanized, chromated transparent

Scope of delivery: Incl. fastening material (FS)

FS1

DIN 7984 M8x20

FS2

DIN 7984 M12x20

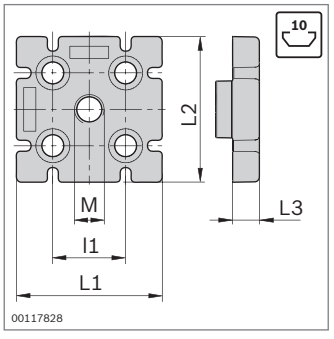


Plate	F (N)	M	L1 (mm)	l1 (mm)	L2 (mm)	L3 (mm)	No.	FS
60x60 8N	10000	M12	60	30	60	11	**3 842 536 566**	4xFS1
80x80L	10000	M12	80	40	80	15	**3 842 529 416**	4xFS2
90x90L	20000	M16	90	45	90	15	**3 842 511 352**	4xFS2
100x100L	20000	M16	100	50	100	15	**3 842 529 417**	4xFS2

Material: Plate: diecast aluminum
Fastening material: steel, galvanized, chromated transparent

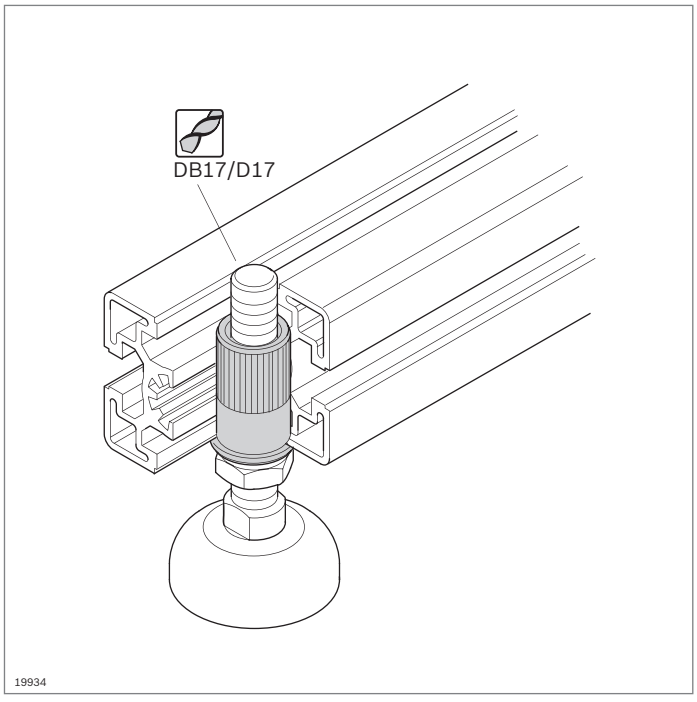
Scope of delivery: Incl. fastening material (FS)

FS1

DIN 7984 M8x20

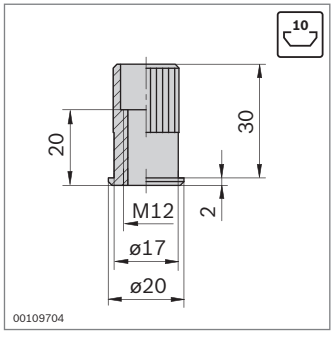
FS2

DIN 7984 M12x20

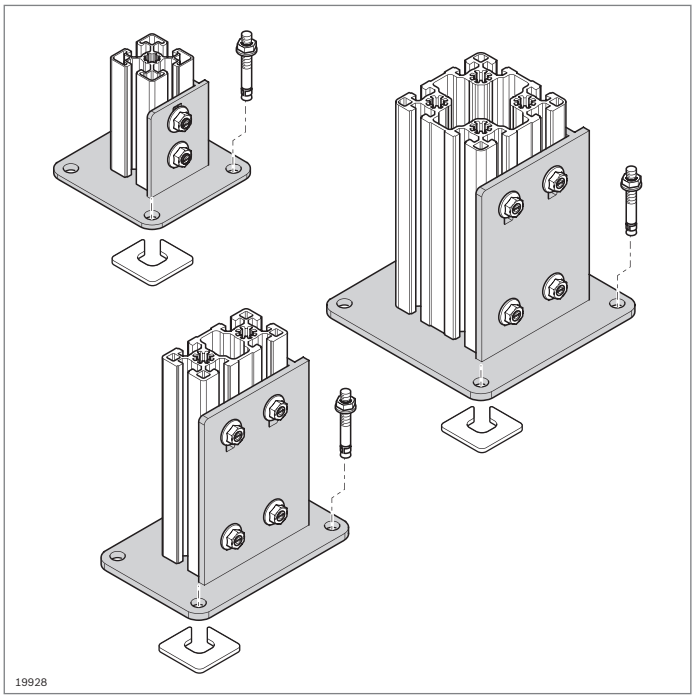


Threaded sleeve

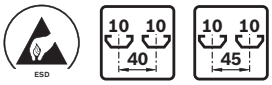
- For fastening leveling feet at an angle to the longitudinal profile direction
- Profile finishing:
  - Blind hole DB17
  - Through hole D17



Threaded sleeve		No.
		3 842 504 790
Material:	Steel, galvanized, chromated transparent	



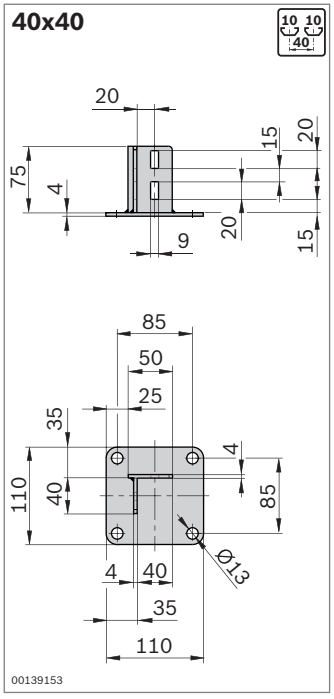
Base plate, steel

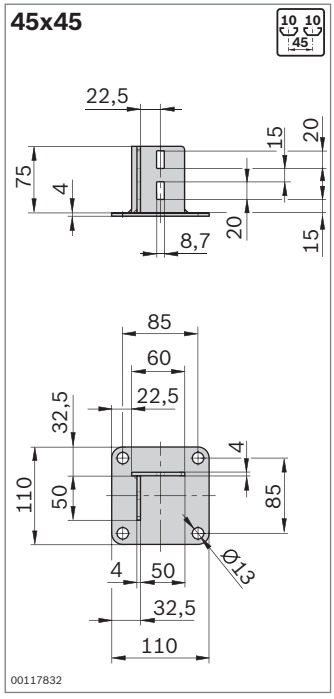


- Used in construction for supporting separating and protective walls
- Profile finishing: not required

Accessories:

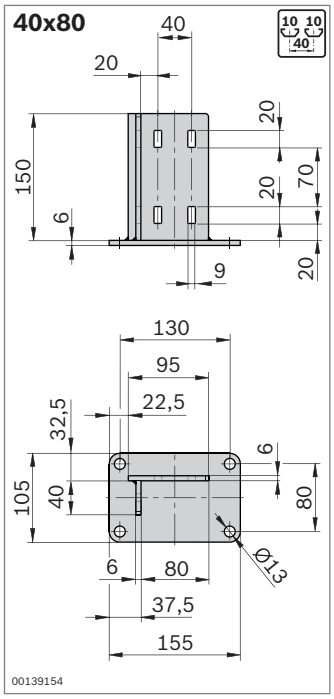
- T-bolt M8x20, 10 mm slot (p. 3-6)
- Flange nut M8 (p. 3-6)
- Floor dowel **3 842 526 561** (p. 6-12)
- Washer (p. 6-12)

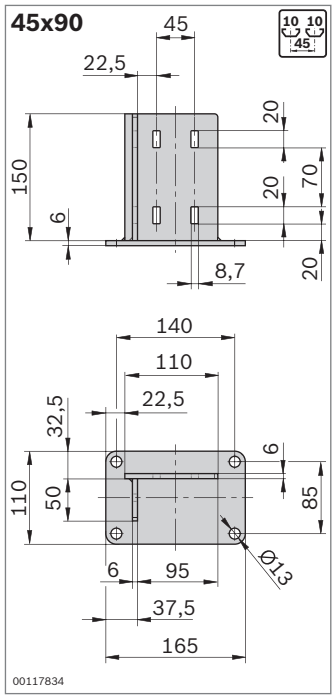




Base plate, steel	ESD	No.
40x40	ESD	**3 842 542 667**
45x45	ESD	**3 842 536 581**

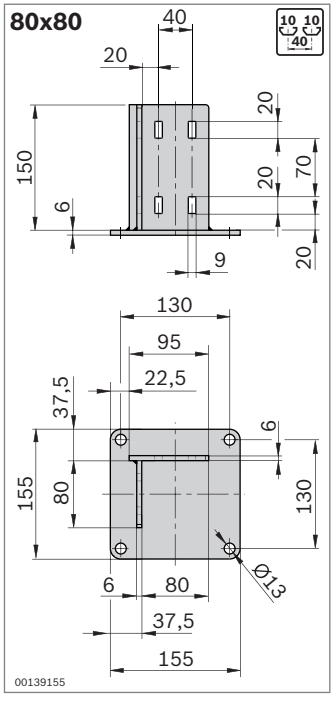
Material: Steel, galvanized, chromated transparent

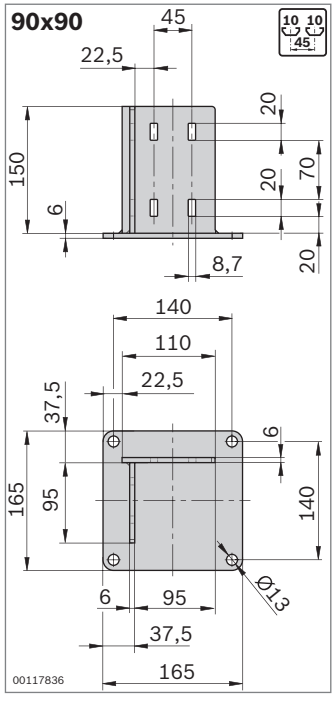




Base plate, steel	ESD	No.
40x80	⚠	**3 842 542 668**
45x90	⚠	**3 842 536 207**

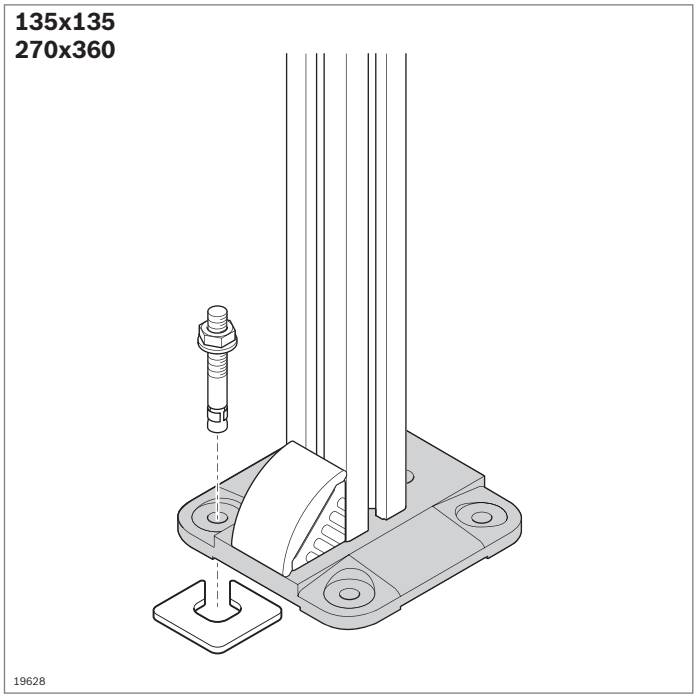
Material: Steel, galvanized, chromated transparent





Base plate, steel	ESD	No.
80x80	⚠	**3 842 542 669**
90x90	⚠	**3 842 536 746**

Material: Steel, galvanized, chromated transparent

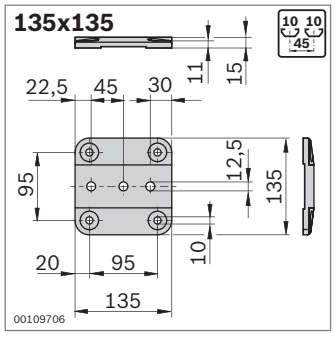


Base plate 135x135, 270x360



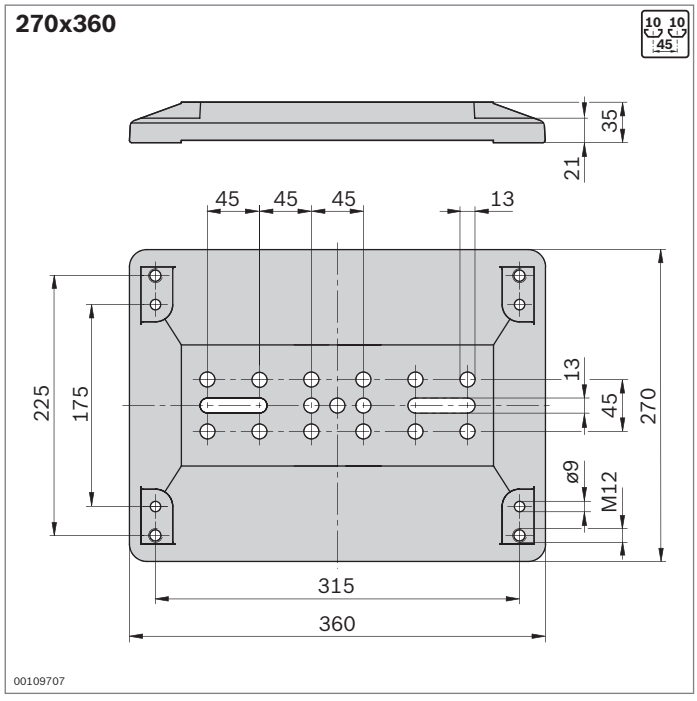
- Used in construction for supporting separating and protective walls
- Anchoring with floor dowel

Required accessories:
Bracket (p. 3-17)



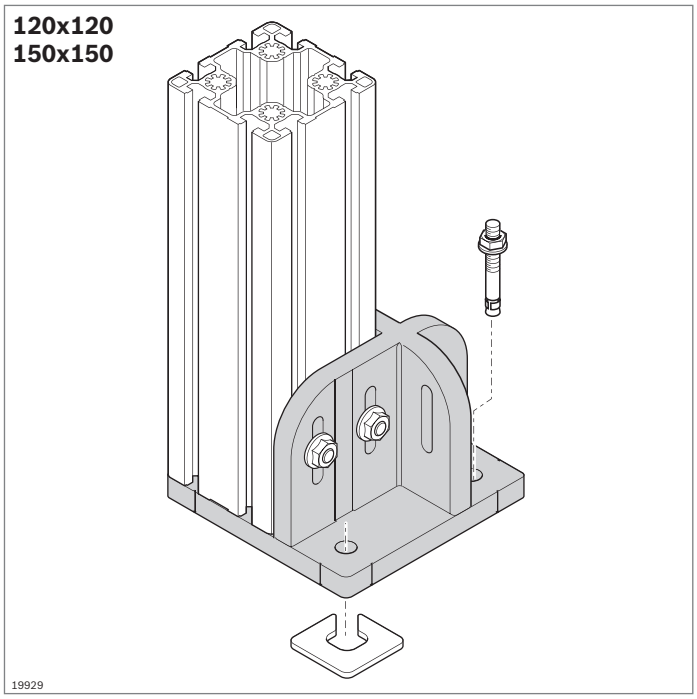
Base plate	ESD	No.
135x135	ⓔ	**3 842 516 175**
Material:	Diecast aluminum	

Required accessories:
- Floor dowel **3 842 526 560** (p. 6-12)
- Washer (p. 6-12)



Base plate	No.
270x360	**3 842 514 567**
Material:	Gray cast iron, black varnish

Required accessories:
- Floor dowel **3 842 540 668** (p. 6-12)
- Washer (p. 6-12)



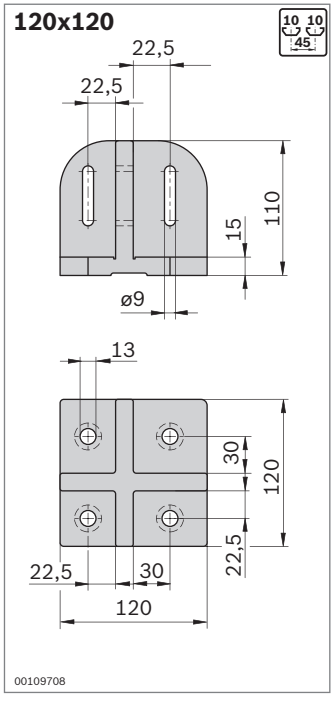
Base plate 120x120, 150x150

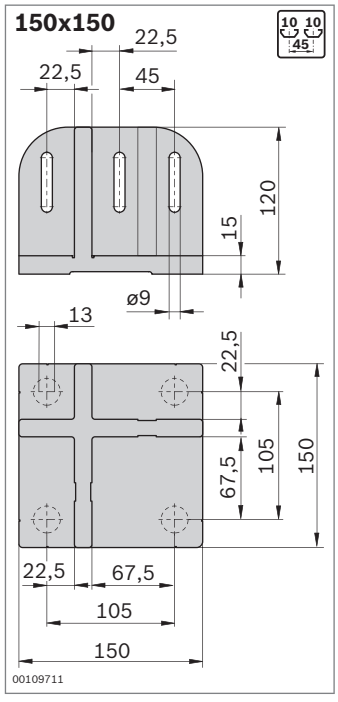


- For flush mounting of supports. No danger of tripping!
- Markings arranged at the center of the profile for precise alignment
- Anchoring with floor dowel

Required accessories:

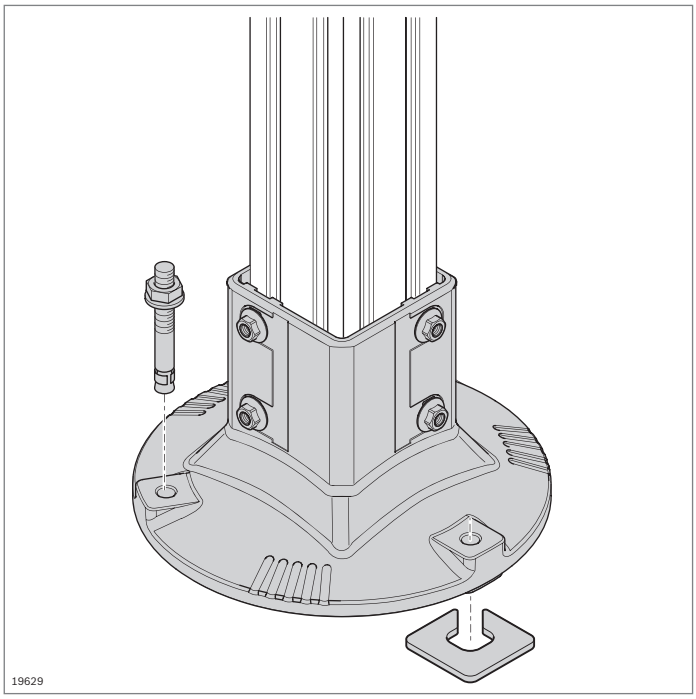
- T-bolt M8x30 **3 842 528 721** (p. 3-6)
- Flange nut M8 **3 842 345 081** (p. 3-6)
- Floor dowel **3 842 526 561** (p. 6-12)
- Washer (p. 6-12)





Base plate	ESD	No.
120x120	⚠	**3 842 527 553**
150x150	⚠	**3 842 524 469**

Material: Diecast aluminum



Foot
Floor dowel, washer

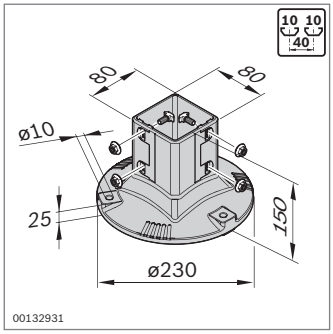


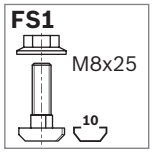
Foot

- For constructing supports made of 80x80L profiles
- Large standing surface for high stability
- Easy cleaning thanks to few horizontal surfaces
- Open on the inside to enable draining of liquids
- Stop as depth limit for profile (removable)

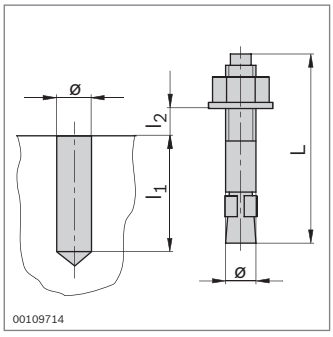
Required accessories:

- Floor dowel **3 842 540 668**
- Washer





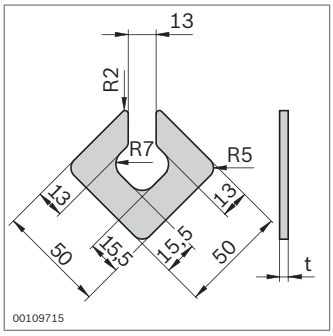
Foot		No.	FS
		3 842 540 173	4xFS1
Material:	Aluminum, silver coating (RAL 9006) Fastening material: steel, galvanized, chromated transparent		
Scope of delivery:	Incl. fastening material (FS1)		



Floor dowel

- For anchoring floor plates

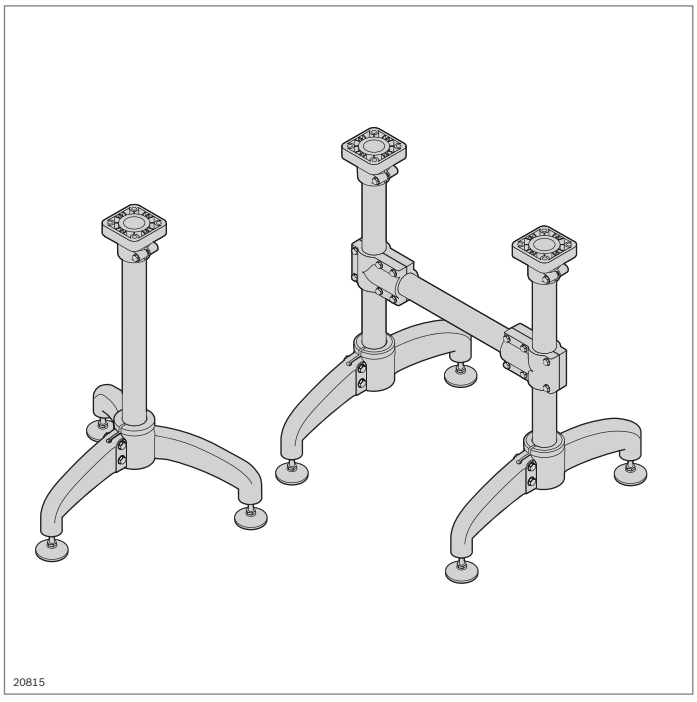
Floor dowel	ø	L (mm)	l_1 (mm)	$l_{2\,max}$ (mm)		No.
	8	80	65	15	100	**3 842 526 560**
	10	90	70	15	100	**3 842 526 561**
	8	95	65	30	100	**3 842 540 668**
Material:	Steel, galvanized, chromated transparent					



Washer

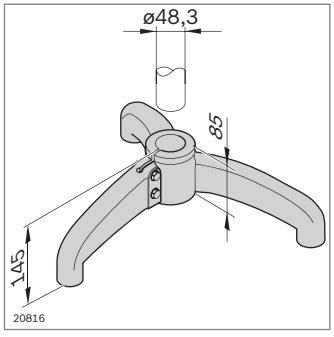
- For leveling in case of uneven flooring

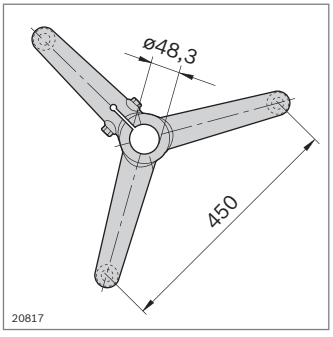
Washer	t (mm)		No.
	1	100	**3 842 528 189**
	4	100	**3 842 528 191**
Material:	Steel, stainless		



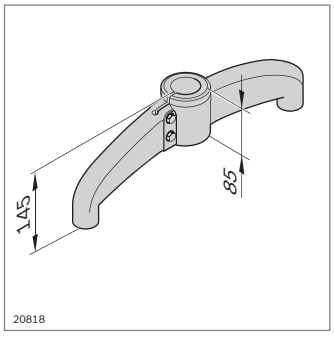
Foot, stainless steel

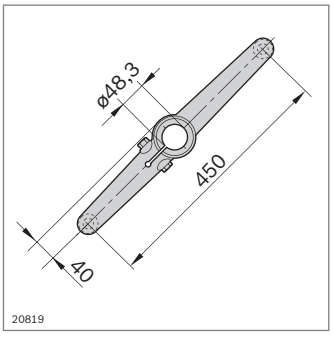
- Components for constructing feet and frames on the stainless steel tube D48.3
- Tubes fastened via clamping



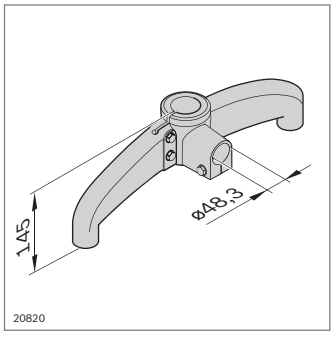


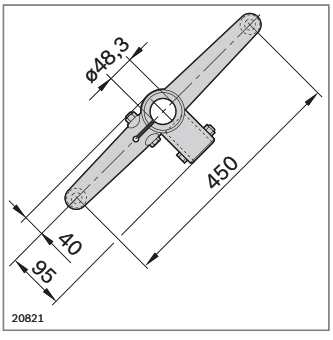
Foot	No.
Tripod	**3 842 533 307**
Material:	Foot: steel, stainless Fastening material: steel, stainless



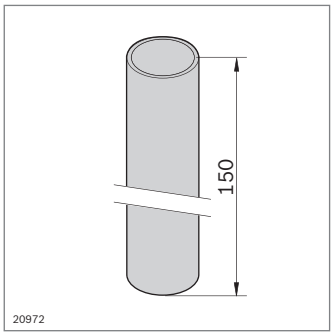


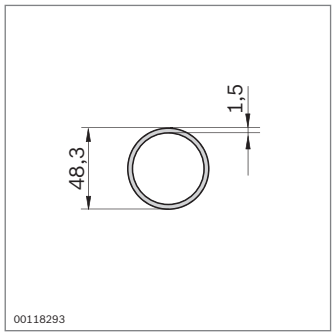
Foot	No.
Bipod	**3 842 533 308**
Material:	Foot: steel, stainless Fastening material: steel, stainless





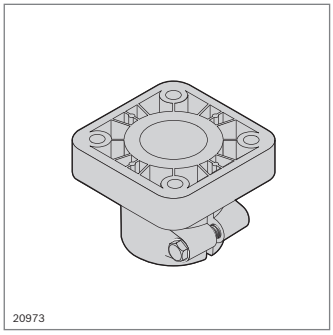
Foot	No.
Bipod with flange	**3 842 533 309**
Material:	Foot: steel, stainless Fastening material: steel, stainless

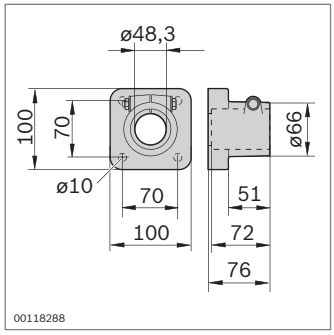




Tube D48.3		**L** (mm)	**No.**
1 pc		200 ... 3000	**3 842 993 308/L**
6 pcs		3000	**3 842 533 901**

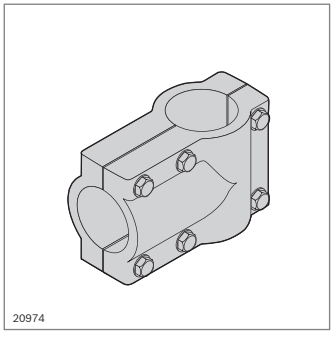
Material: Steel, stainless

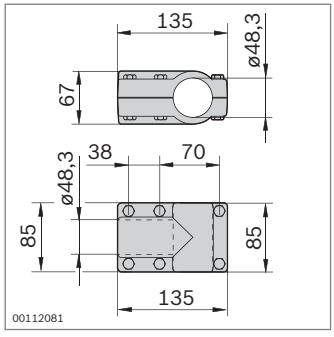




Flange	**No.**
	3 842 533 305

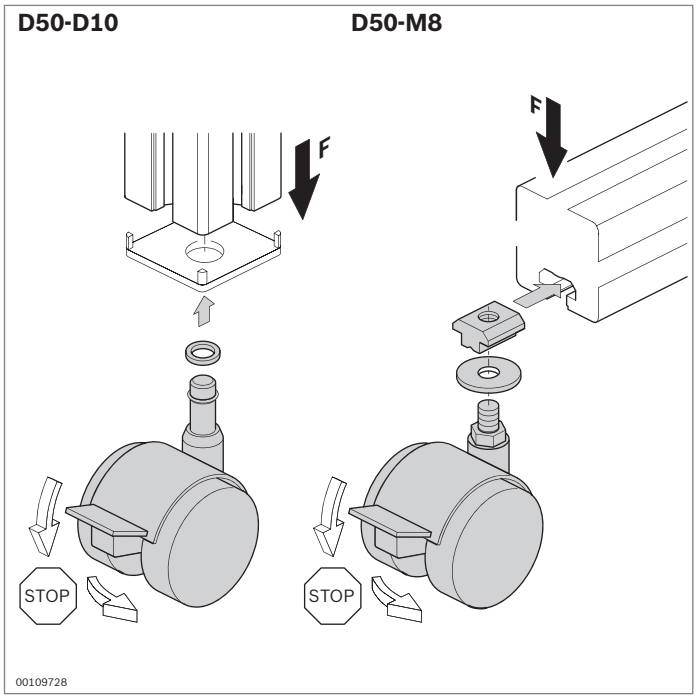
Material: Flange: PA
Fastening material: steel, stainless





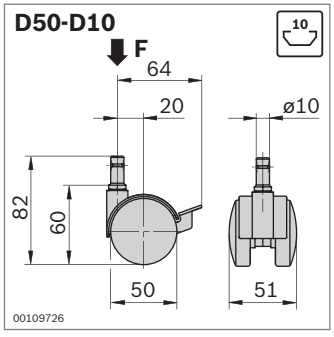
Cross connectors	**No.**
	3 842 533 306

Material: PA
Fastening material, adjustment screw: steel, stainless



Double wheel

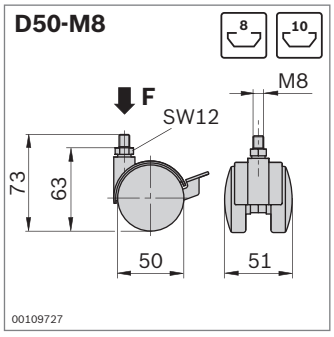
- Attractive double wheel for light applications
- Made of oil-resistant material
- Double wheel with lock
- Double wheel D50-D10 for insertion in the central hole with a diameter of 10 mm
- Double wheel D50-M8 for bolting in the profile slot

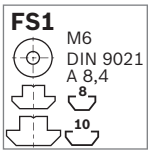


Double wheel	F (N)	ESD		No.
D50-D10	400		4	**3 842 515 457**
	400	1)	4	**3 842 515 459**

1) Conduction resistance ≤ 10^6 Ω

Material: Housing, wheel, lock: PA
Running surface: PU (only ESD version)
Fastening material: steel, galvanized, chromated transparent

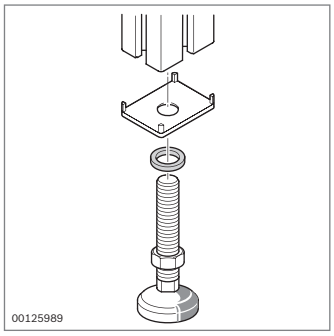


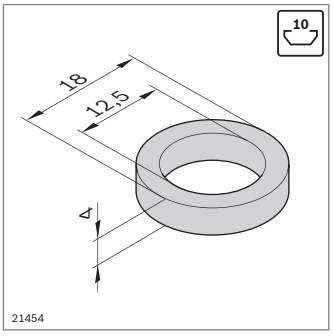


Double wheel	F (N)	ESD		No.	FS
D50-M8	400		4	**3 842 535 669**	FS1
	400	1)	4	**3 842 535 670**	FS1

1) Conduction resistance ≤ 10^6 Ω

Material: Housing, wheel, lock: PA
Running surface: PU (only ESD version)
Fastening material: steel, galvanized, chromated transparent





Bearing ring

- For caps with hole
- For M12 threads
- To protect the caps when tightening accessories

Bearing ring		No.
	100	**3 842 536 321**

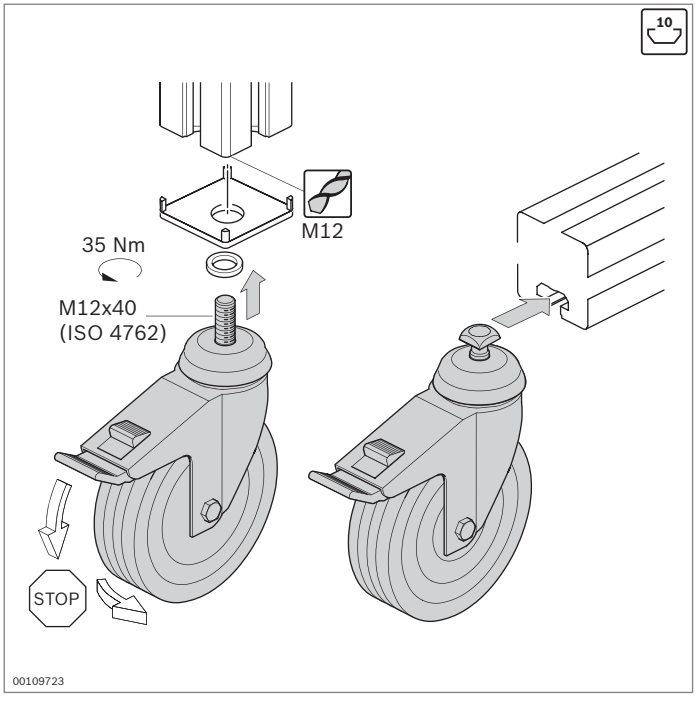
Material: Steel, stainless











Roller

- Four versions for a wide range of applications
- Rollers with excellent running properties
- Available as a caster wheel with lock, caster, and trestle wheel

Especially gentle on floors

Resistant to oil, suitable for workshop floors

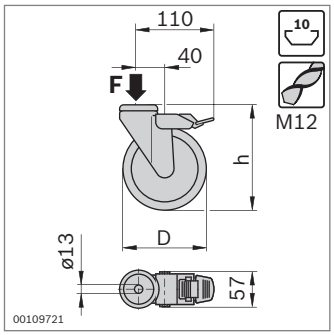
Suitable for ESD-sensitive areas.
Conductive material version in accordance with DIN EN 61340-5-1

Clean Room
Suitable for use in cleanrooms.
Conductive material version in accordance with DIN EN 61340-5-1; conduction resistance 10^3 to 10^8 Ω

- Mounting of all rollers in the profile slot or central hole (accessories required)
- Profile finishing: thread cutting M12 for assembly in central hole

Required accessories:

- Screw M12x40 (ISO 4762) for mounting in central hole (↻ 35 Nm)
- Bearing ring for use of a cap with hole (p. 6-15)



FS1

M12X30

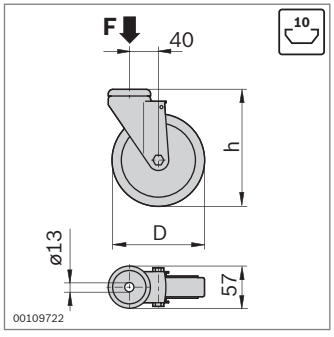
DIN 985 M12

▶ Caster wheel with lock: locking prevents rolling and turning of the wheel

Caster wheel with lock	F (N)	D (mm)	h (mm)	ESD	No.	FS
	900	80	108		**3 842 541 226**	FS1
	1100	125	158		**3 842 541 228**	FS1
	1100	125	158		**3 842 515 367**	FS1
	900	80	108	ESD	**3 842 541 230**	FS1
	1100	125	158	ESD	**3 842 541 232**	FS1
Clean Room	1000	125	158	ESD	**3 842 524 499**	FS1

Material:

- Thermoplastic rubber wheel, rim: PA
- Reinforced PA
- Thermoplastic rubber, conductive 10^6 Ω
- Clean Room: Gray PU; housing: steel, chrome-plated



FS1

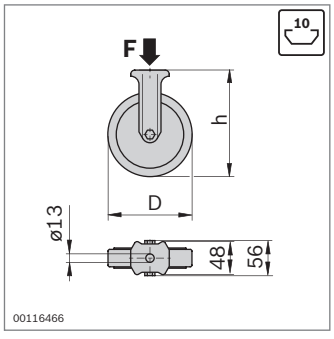
M12X30

DIN 985 M12

Caster wheel	F (N)	D (mm)	h (mm)	ESD	No.	FS
	900	80	108		**3 842 541 234**	FS1
	1100	125	158		**3 842 541 236**	FS1
	1100	125	158		**3 842 515 366**	FS1
	900	80	108	ESD	**3 842 541 238**	FS1
	1100	125	158	ESD	**3 842 541 240**	FS1
Clean Room	1000	125	158	ESD	**3 842 524 500**	FS1

Material:

- Thermoplastic rubber wheel, rim: PA
- Reinforced PA
- Thermoplastic rubber, conductive 10^6 Ω
- Clean Room: Gray PU; housing: steel, chrome-plated



FS1

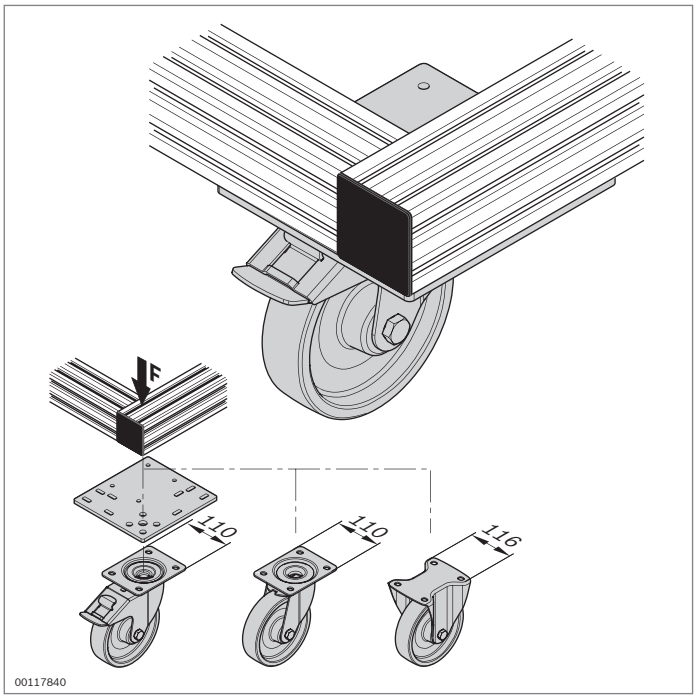
M12X30

DIN 985 M12

Trestle wheel	F (N)	D (mm)	h (mm)	ESD	No.	FS
	900	80	108	ESD	**3 842 541 242**	FS1
	1100	125	158	ESD	**3 842 541 244**	FS1

Material:

- Thermoplastic rubber, conductive 10^6 Ω



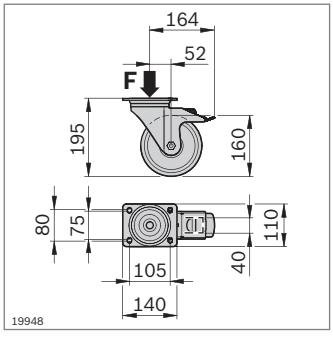
Heavy-duty wheel



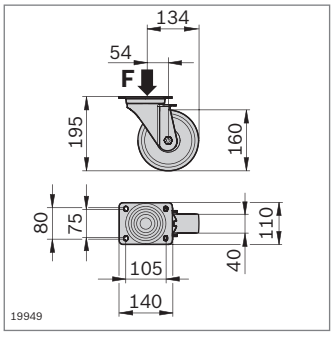
- Heavy-duty wheel with mounting flange
- Available as a caster wheel with lock, caster, and trestle wheel
- Heavy-duty, particularly suited for workshop applications
- Rollers with excellent running properties

Required accessories:

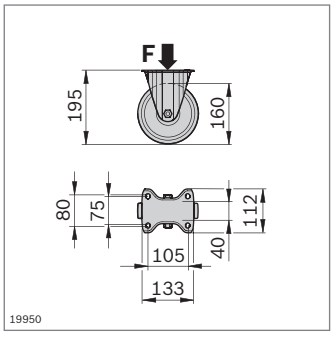
- Screw M10x16 (ISO 4762), washer A10.5 (DIN 125), locking washer 10FSt for attaching to the screw-on plate
- T-bolt, flange nut, central bolt M12 or S12 for fastening the screw-on plate to the profile frame



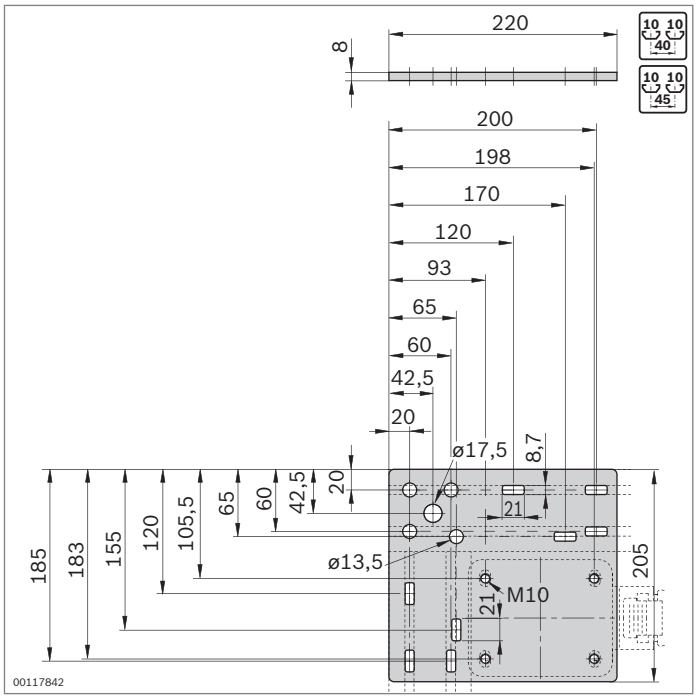
Caster wheel with lock		**F** (N)	**No.**
		3000	**3 842 536 736**
Material:	Housing: steel, galvanized, chromated transparent Wheel: TPU		



Caster wheel		**F** (N)	**No.**
		3000	**3 842 536 737**
Material:	Housing: steel, galvanized, chromated transparent Wheel: TPU		



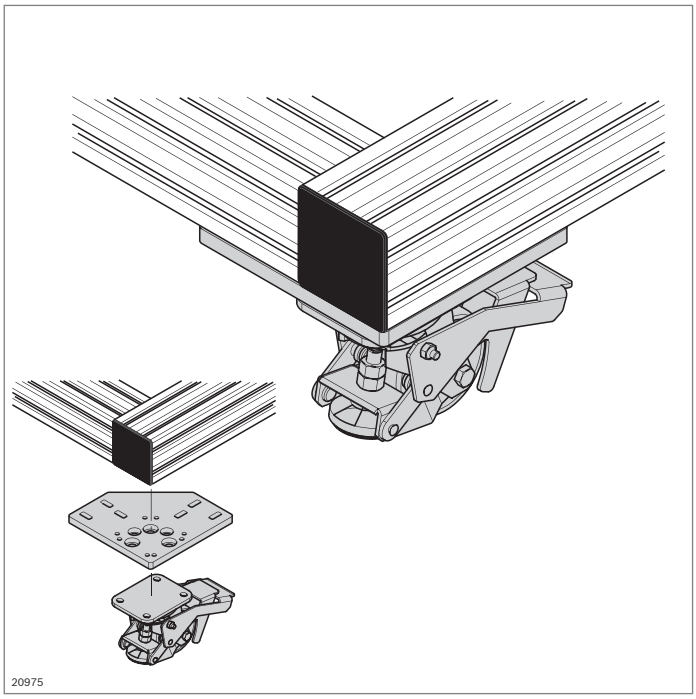
Trestle wheel		**F** (N)	**No.**
		3000	**3 842 536 738**
Material:	Housing: steel, galvanized, chromated transparent Wheel: TPU		



- Screw-on plate for attachment to 40 mm or 45 mm profiles

Screw-on plate		No.
	4	**3 842 536 701**

Material: Steel, galvanized



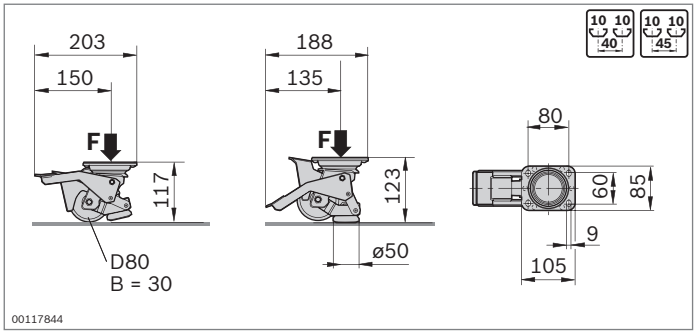
Lifting wheel



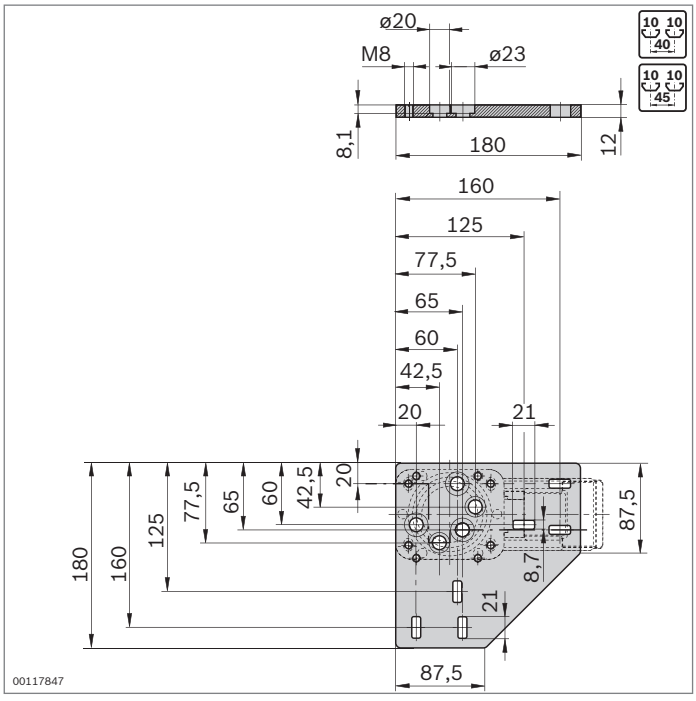
- Steerable lifting wheel
- The wheel turns into a stable base simply by engaging the stop lever
- Screw-on plate for mounting the lifting wheel

Required accessories:

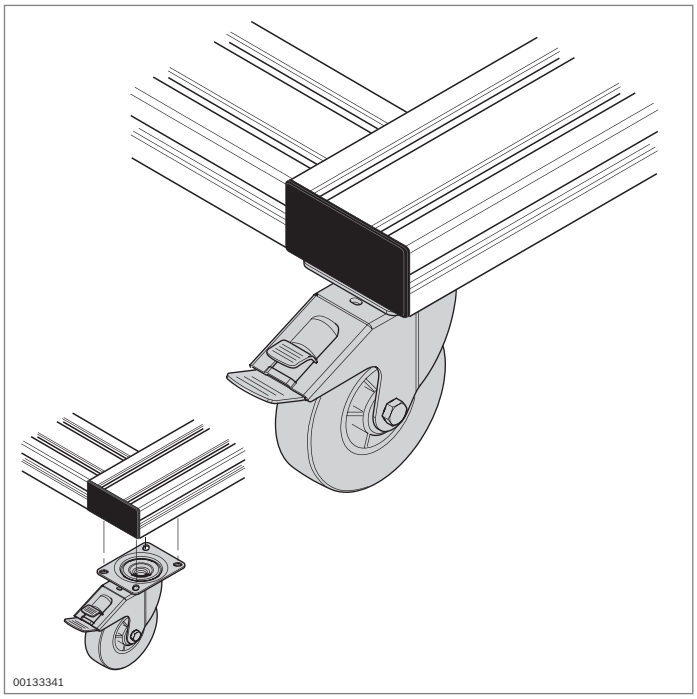
- Screw M8x20 (ISO 4762), washer A8.4 (DIN 125), locking washer 8 FSt for attaching to the screw-on plate
- T-bolt, flange nut, central bolt M12 or S12 for fastening the screw-on plate to the profile frame



Lifting wheel		F (N)	No.
		2000	**3 842 536 578**
Material:	Wheel: PUR Housing: steel, galvanized Base plate: PA, black with rubber insert		



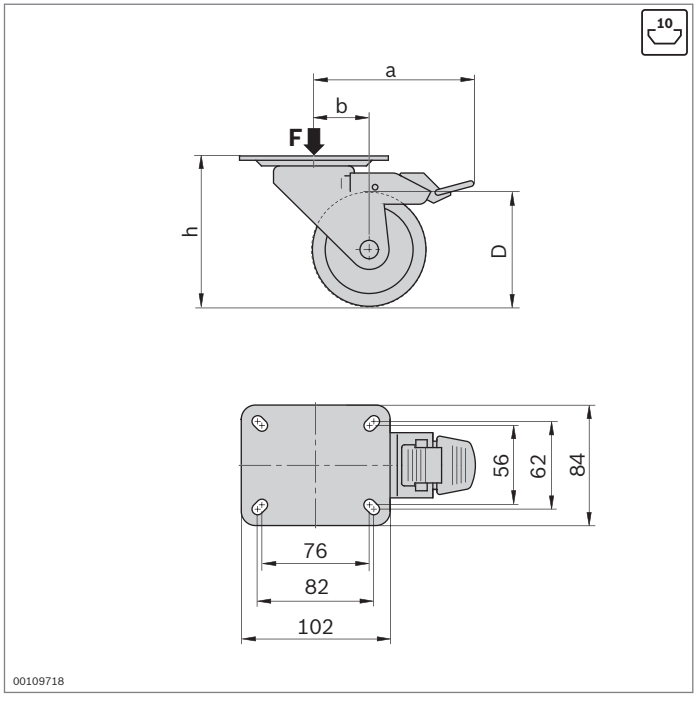
Screw-on plate			No.
		4	**3 842 536 902**
Material:	Steel, galvanized		



Roller with mounting flange

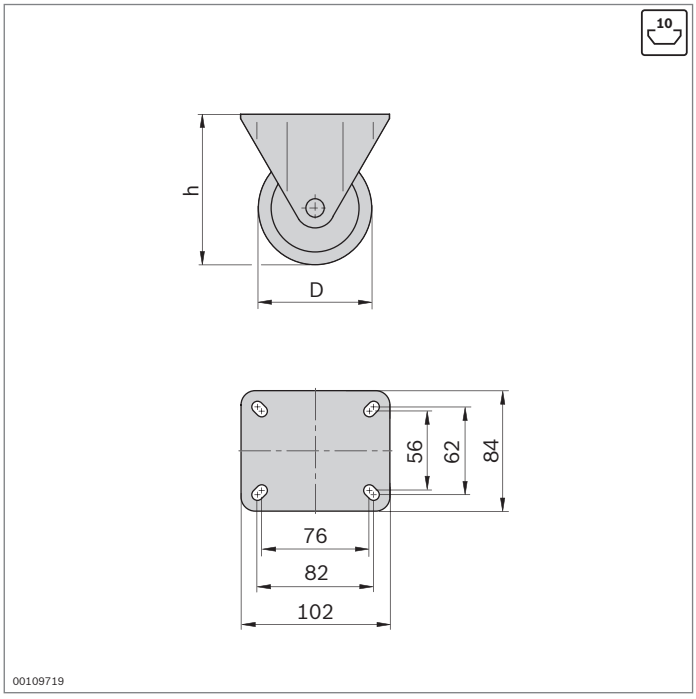


- Robust rollers with mounting flange
- Excellent running properties, particularly suitable for workshop floors
- Available as a caster wheel with lock and as a trestle wheel
- Caster wheel with lock: locking prevents rolling and turning of the wheel



Caster wheel	F (N)	D (mm)	H (mm)	a (mm)	b (mm)	No.
	600	100	125	125	40	**3 842 259 790**
	900	125	150	130	46	**3 842 259 791**

Material: Wheel: solid rubber
Rim: polypropylene
Housing: sheet steel, galvanized, chromated transparent



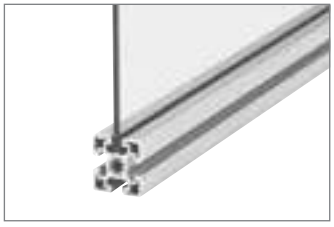
Trestle wheel	**F** (N)	**D** (mm)	**h** (mm)	**No.**
	600	100	125	**3 842 259 792**
	900	125	150	**3 842 259 793**

Material: Wheel: solid rubber
Rim: polypropylene
Housing: sheet steel, galvanized, chromated transparent

FS1
ISO 4762
M6x10
8-FSt
DIN 125, 8,4
M8 10

Fastening kit	No.	FS
	3 842 259 794	3xFS1

Support of surface elements



Mounting rim profile
(p. 7-2)



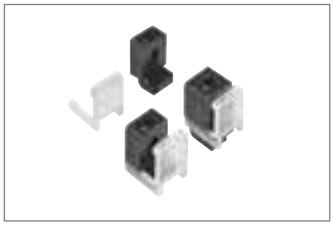
Mounting rim profile Clean
(p. 7-3)



Protective pane profile PVC
(p. 7-4)



Protective pane profile
Clean (p. 7-5)



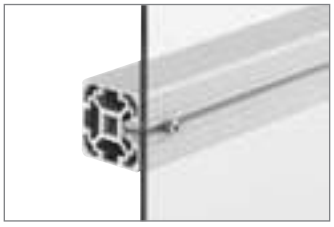
Variofix block (p. 7-6)
Variofix block S (p. 7-7)



Bracket S (p. 7-8)



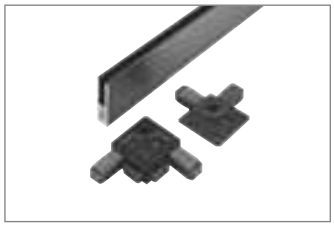
Retainer ring (p. 7-9)



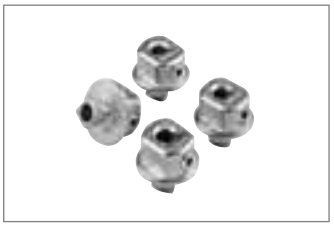
Cover strip profile (p. 7-10)



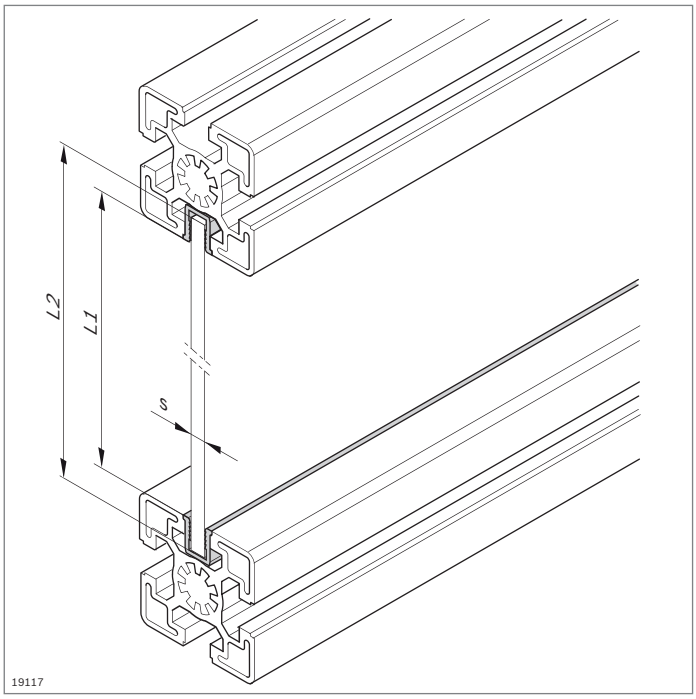
Potential equalizer (p. 7-11)



Protective grille profile
(p. 7-12)



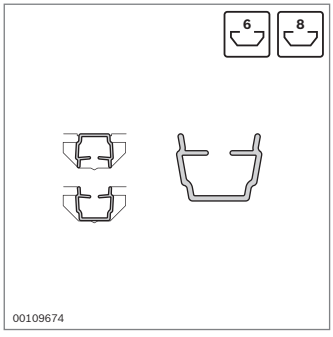
Clamp bushing (p. 7-13)

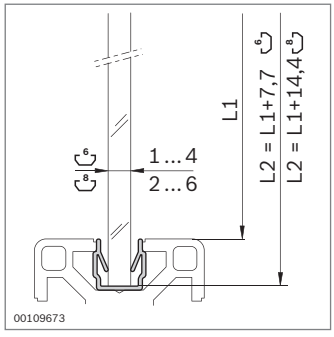


Mounting rim profile

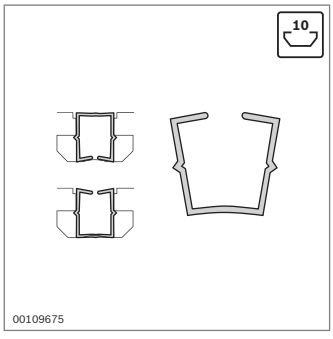


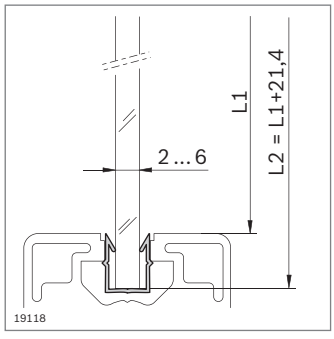
- For the secure attachment of surface elements in the profile slot
- For surface elements up to 6 mm thick
- Installation during frame assembly
- Mounting rim profiles PP can also be used as cover profiles



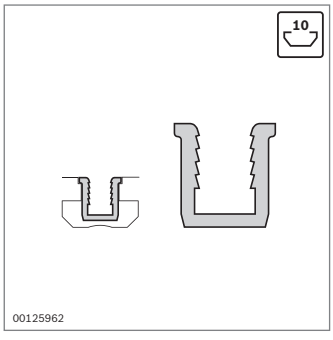


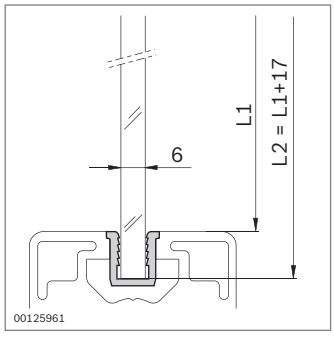
Mounting rim profile	Slot	s (mm)	L (mm)	No.
	6	1 ... 4	2000	**3 842 518 343**
	8	2 ... 6	2000	**3 842 518 347**
Material: PP, black				



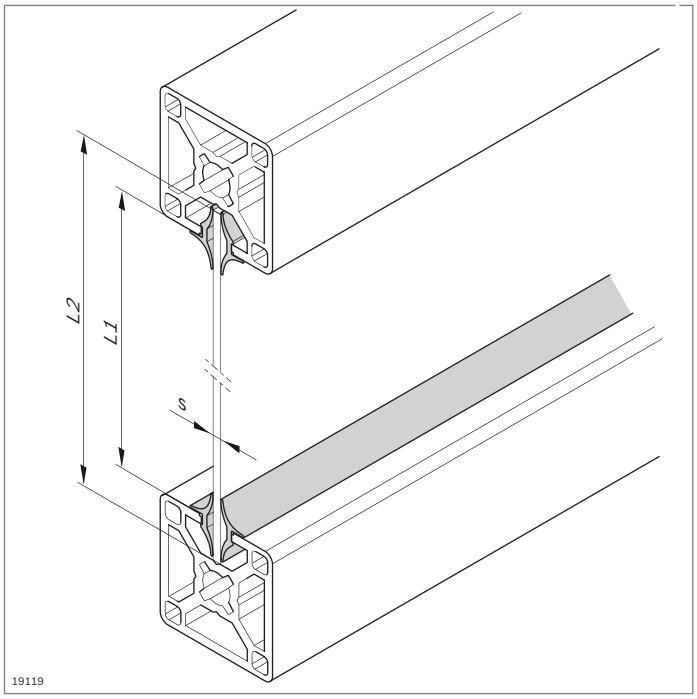


Mounting rim profile	Slot	s (mm)	L (mm)	No.
	10	2 ... 6	2000	**3 842 518 351**
Material: PP, black				





Mounting rim profile	Slot	s (mm)	L (mm)	No.
	10	6	2000	**3 842 146 906**
Material: PE, black				

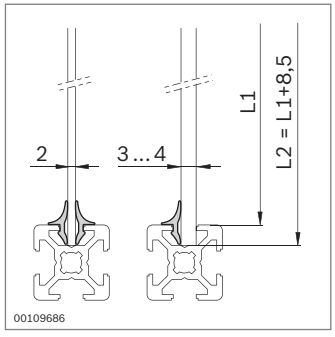


Mounting rim profile Clean



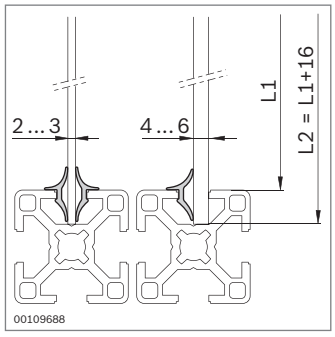
- For the secure attachment of surface elements in the profile slot
- For surface elements with a thickness of 2 to 8 mm
- For use on one or two sides of the mounting rim profile, depending on the surface element thickness
- Installation during profile frame assembly
- Suitable for use under cleanroom conditions
- Assessment of highly volatile organic emissions at room temperature, 50°C and 120°C, Report No. BO 9903-160



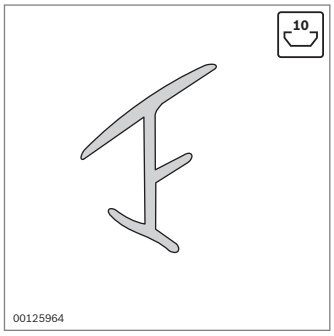


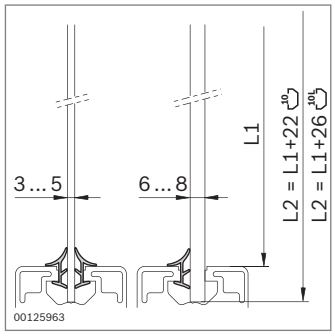
Mounting rim profile Clean	Slot	**s** (mm)	**L** (mm)	**No.**
	6	2 ... 4	10000	**3 842 523 493**
Material:	TPE, light gray RAL 7035			



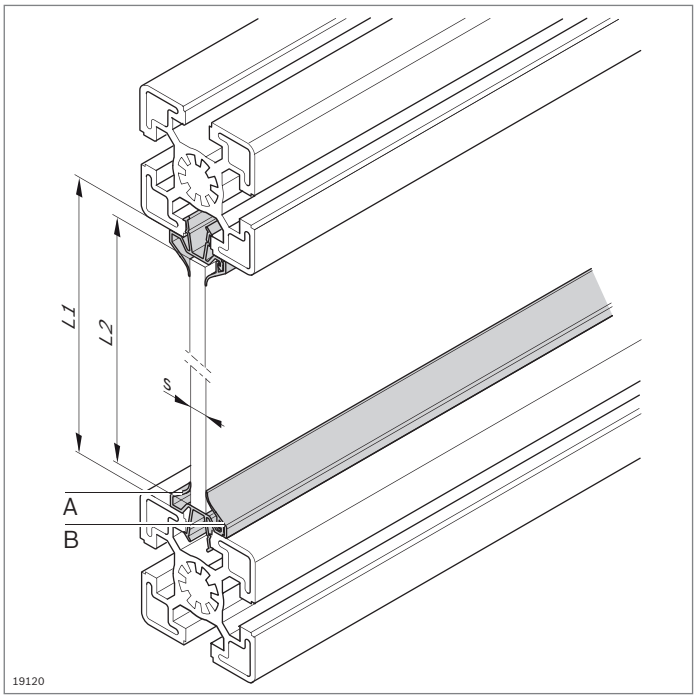


Mounting rim profile Clean	Slot	**s** (mm)	**L** (mm)	**No.**
	8	2 ... 6	10000	**3 842 523 494**
Material:	TPE, light gray RAL 7035			





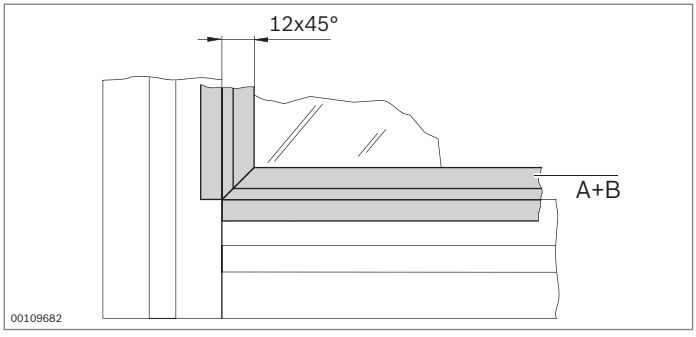
Mounting rim profile Clean	Slot	**s** (mm)	**L** (mm)	**No.**
	10	3 ... 8	10000	**3 842 527 185**
Material:	TPE, light gray RAL 7035			

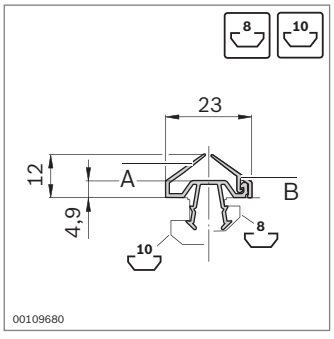


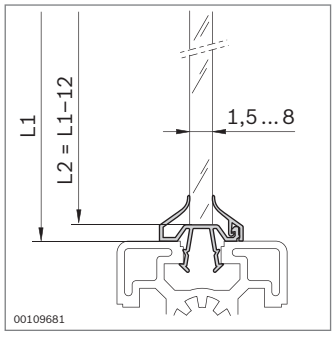
Protective pane profile PVC



- For the secure attachment of surface elements
- For surface elements with a thickness of 1.5 to 8 mm
- For subsequent installation in closed frame constructions
- Installation of surface elements at center of slot
- The protective pane profile consists of the basic profile (**A**) and the clip strip (**B**)
- With lip seals to protect the working space from splashing liquids

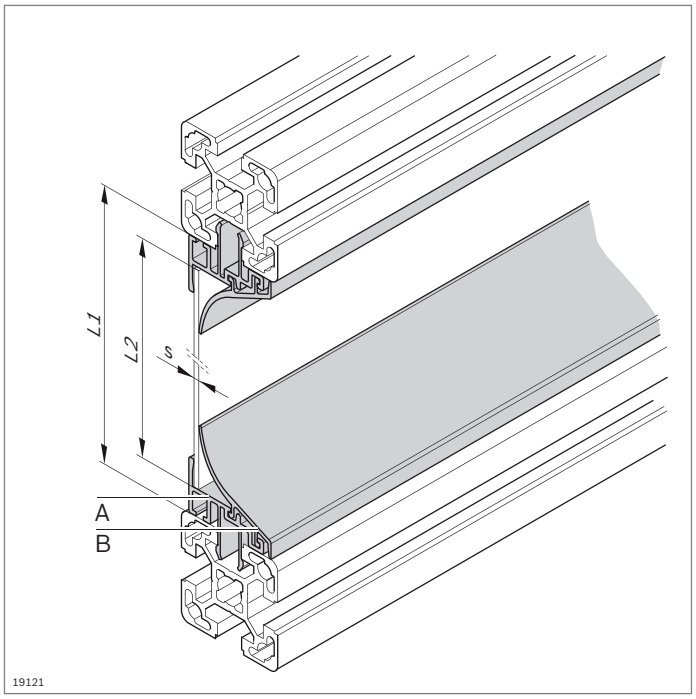




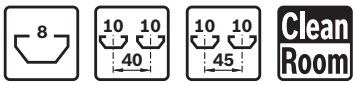


Protective pane profile PVC		Slot	**s** (mm)	**L** (mm)		**No.**
A	Basic profile	8, 10	1.5 ... 8	2000	10	**3 842 519 565**
B	Clip strip	8, 10	1.5 ... 8	2000	10	**3 842 519 567**

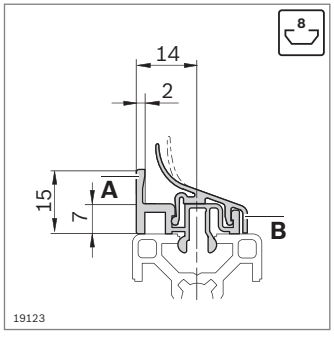
Material: PVC, black

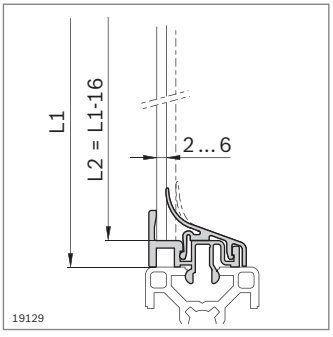


Protective pane profile Clean



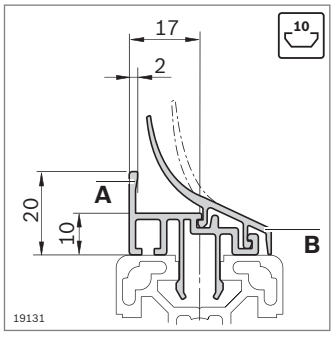
- For the secure attachment of surface elements
- For surface elements with a thickness of 2 to 8 mm
- For subsequent installation in closed frame constructions
- Installation of surface elements flush with the profile edge
- The protective pane profile consists of the basic profile (**A**) and the clip strip (**B**). Both profiles are required for proper functioning
- Suitable for use under cleanroom conditions
- Assessment of highly volatile organic emissions at room temperature, 50°C and 120°C, Report No. BO 9903-161

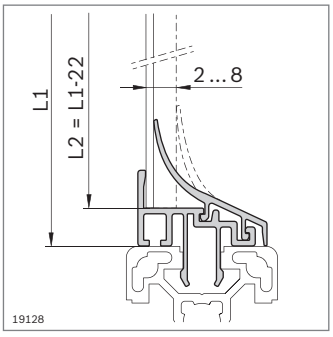




Protective pane profile		Slot	s (mm)	L (mm)		No.
A	Basic profile	8	2 ... 6	2000	10	**3 842 524 025**
B	Clip strip	8	2 ... 6	2000	10	**3 842 524 026**

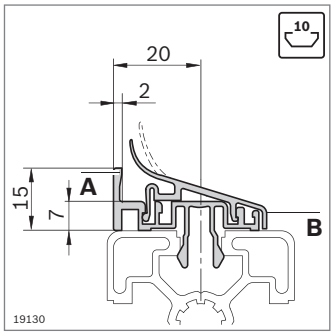
Material: Basic profile: aluminum, anodized
Clip strip: PP/TPE, light gray RAL 7035

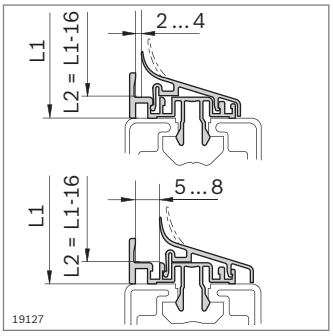




Protective pane profile		Slot	s (mm)	L (mm)		No.
A	Basic profile	10	2 ... 8	2000	10	**3 842 529 761**
B	Clip strip	10	2 ... 8	2000	10	**3 842 529 762**

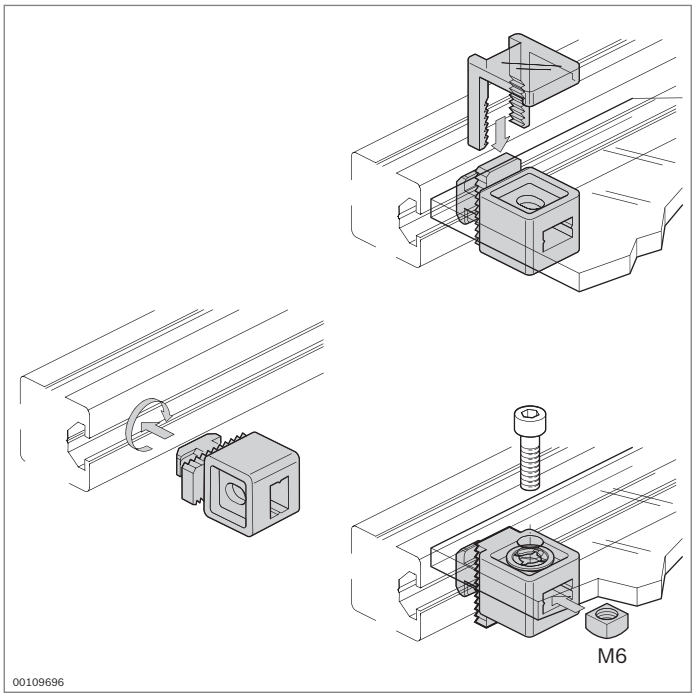
Material: Basic profile: aluminum, anodized
Clip strip: PP/TPE, light gray RAL 7035





Protective pane profile		Slot	s (mm)	L (mm)		No.
A	Basic profile	10	2 ... 8	2000	10	**3 842 524 027**
B	Clip strip	10	2 ... 8	2000	10	**3 842 524 028**

Material: Basic profile: aluminum, anodized
Clip strip: PP/TPE, light gray RAL 7035



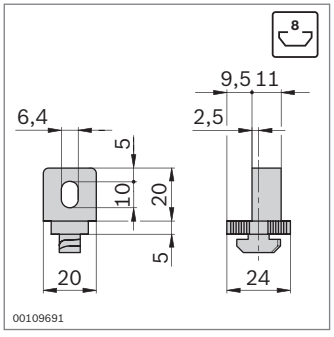
Variofix block

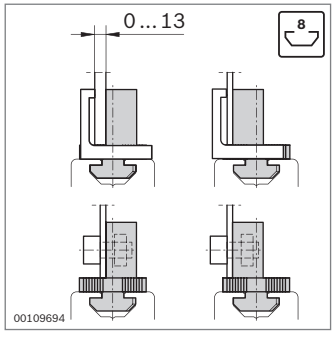


- For surface elements up to 13 mm thick
- For subsequent installation in closed frame constructions
- Asymmetrical form enables fastening of surface elements in two different positions
- Clamping via snap-in clips or screw fitting with square nut M6 (included in scope of delivery) and screw
- Retainer ring for connecting the screw to the surface element (Machinery Directive 2006/42/EC)

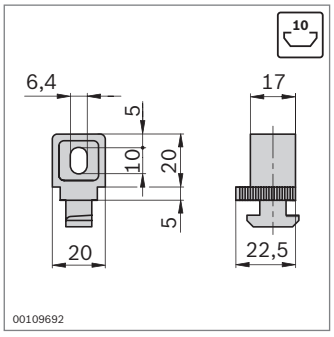
Accessories:

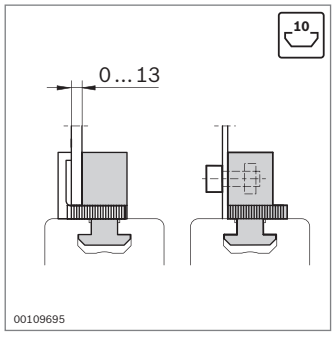
- Variofix remover (p. 14-7)
- Screw for fitting with square nut



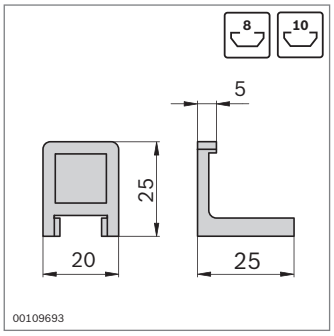


Variofix block	Slot		No.
	8	10	**3 842 535 696**
Material:	PA, black Square nut: steel, galvanized		
Scope of delivery:	Incl. square nut		

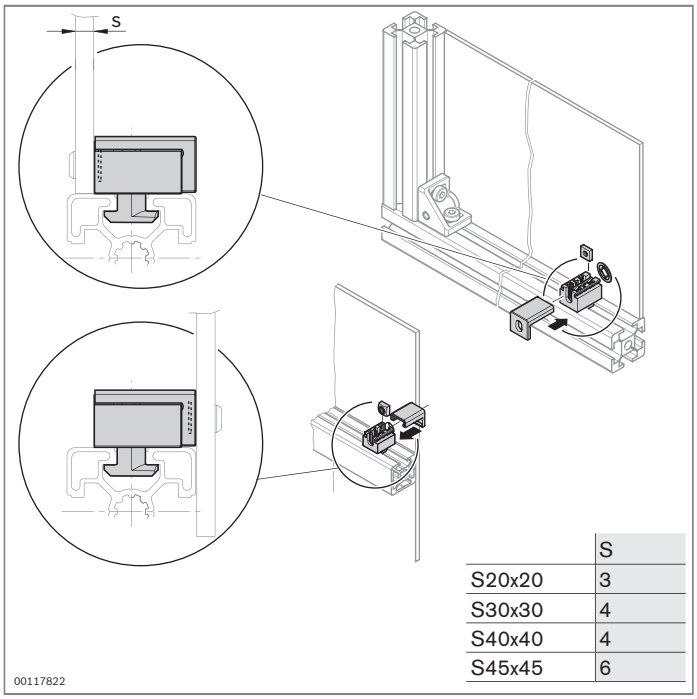




Variofix block	Slot		No.
	10	10	**3 842 529 239**
Material:	PA, black Square nut: steel, galvanized		
Scope of delivery:	Incl. square nut M6, retainer ring M6		



Snap-in clip		No.
	10	**3 842 184 738**
Material:	PA, colorless	



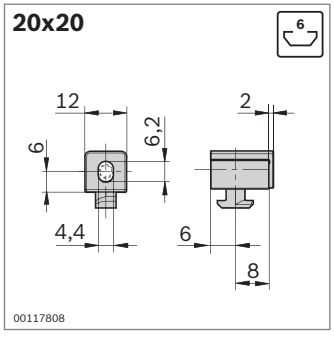
	S
S20x20	3
S30x30	4
S40x40	4
S45x45	6

Variofix S block

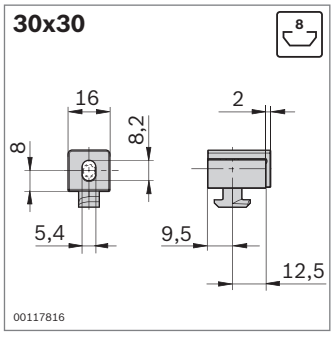


- For virtually gap-free surface element mounting
- For subsequent installation in closed frame constructions
- The asymmetrical design and cap enable variable mounting positions for the surface elements: flush with the profile edge or situated in front of the profile
- Retainer ring for connecting the screw to the surface element (Machinery Directive 2006/42/EC)

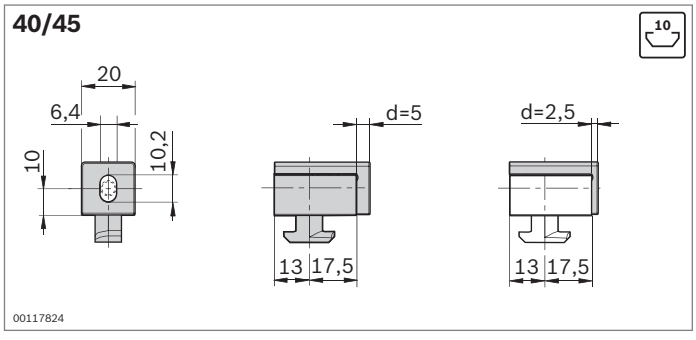
Required accessories:
Screw for fastening the surface element



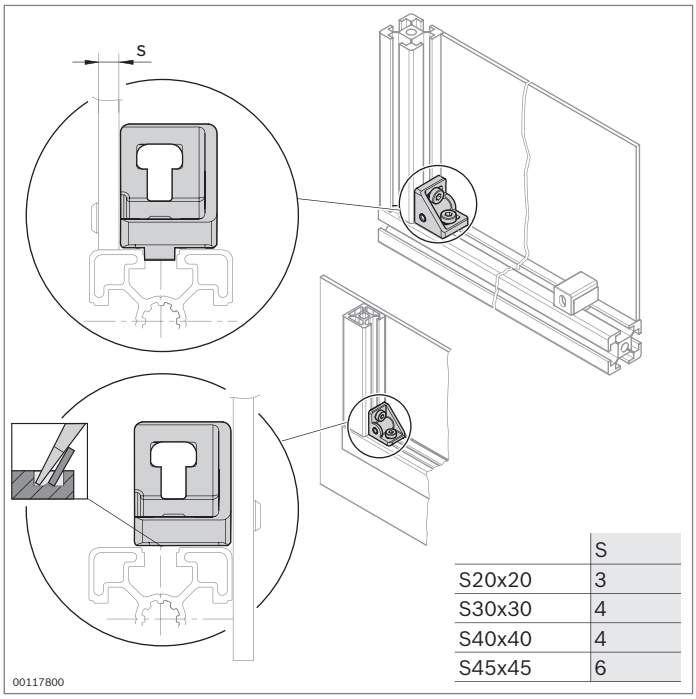
Variofix S block		Slot		No.
20x20		6	10	**3 842 536 493**
Material:	PA, black Square nut: steel, galvanized, chromated transparent			
Scope of delivery:	Incl. square nut M4, cap			



Variofix S block		Slot		No.
30x30		8	10	**3 842 536 494**
Material:	PA, black Square nut: steel, galvanized, chromated transparent			
Scope of delivery:	Incl. square nut M5, cap, retainer ring			



Variofix S block		Slot		No.
40/45		10	10	**3 842 536 495**
Material:	PA, black Square nut: steel, galvanized, chromated transparent			
Scope of delivery:	Incl. square nut M5, 2x cap (d = 2.5 mm; d = 5 mm), retainer ring			



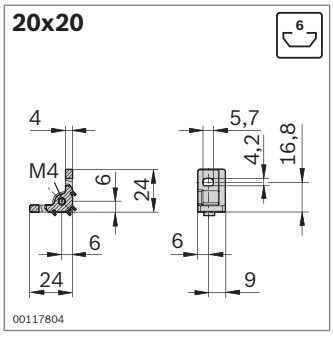
	S
S20x20	3
S30x30	4
S40x40	4
S45x45	6

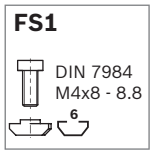
Bracket S



- Bracket with thread for virtually gap-free mounting of surface elements
- For subsequent installation in closed frame constructions
- Surface elements can be mounted in different positions: flush with the profile edge or situated in front of the profile (by breaking off the centering lug)

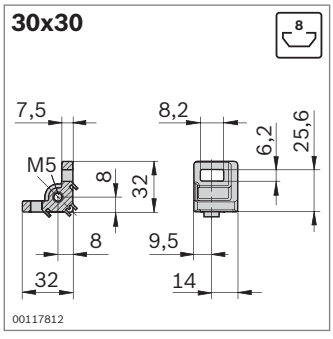
Required accessories:
Screw for fastening the surface element
Optional accessories:
- Variofix block S (p. 7-7)
- Retainer ring (p. 7-9)

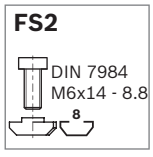




Bracket S	Slot		No.	FS
20x20	6	20	**3 842 536 489**	
20x20 set	6	1	**3 842 536 670**	2xFS1

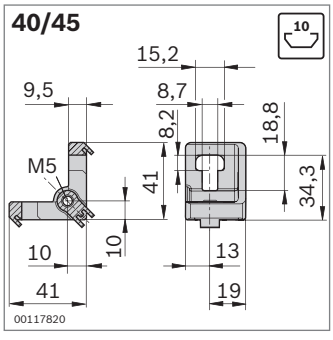
Material: Diecast aluminum
Fastening material: steel, galvanized
Scope of delivery: Set incl. fastening material (FS)

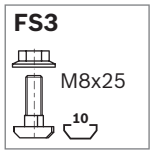




Bracket S	Slot		No.	FS
30x30	8	20	**3 842 536 490**	
30x30 set	8	1	**3 842 536 671**	2xFS2

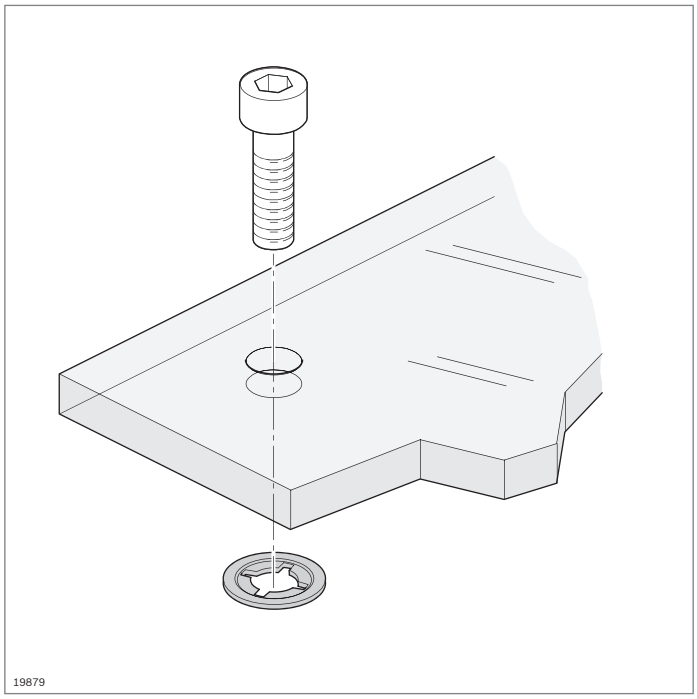
Material: Diecast aluminum
Fastening material: steel, galvanized
Scope of delivery: Set incl. fastening material (FS)





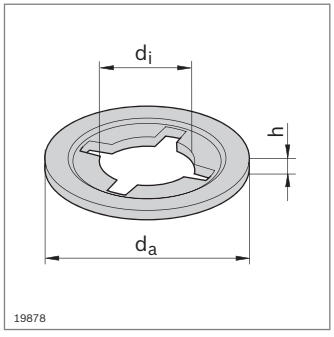
Bracket S	Slot		No.	FS
40/45	10	20	**3 842 536 491**	
40/45 set	10	1	**3 842 536 672**	2xFS3

Material: Diecast aluminum
Fastening material: steel, galvanized
Scope of delivery: Set incl. fastening material (FS)



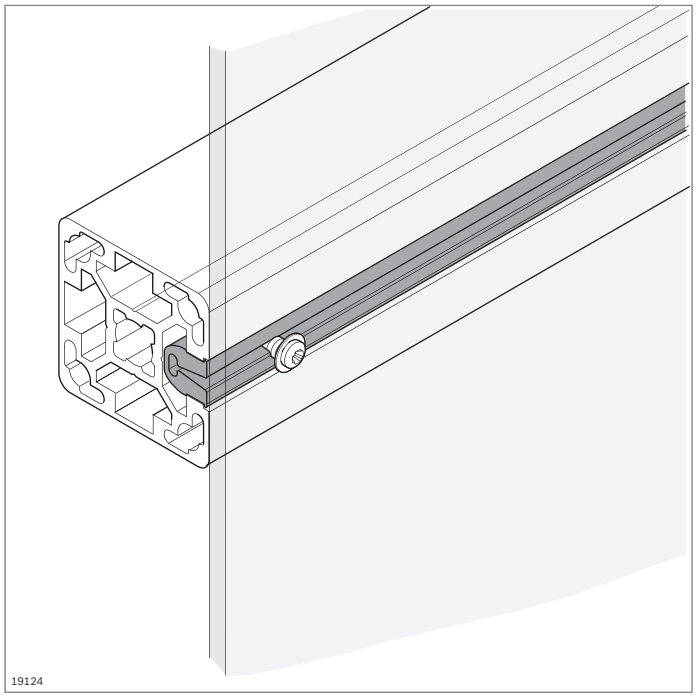
Retainer ring

- Secures the fastening screw to the surface element
- For use with all Variofix blocks, but not for the S bracket
- Retrofitting possible
- For various thread sizes



Retainer ring	d_a (mm)	d_i (mm)	h (mm)		No.
M4	9.0	3.4	1.0	100	**3 842 542 328**
M5	10.0	4.5	1.0	100	**3 842 542 329**
M6	12.5	5.5	1.5	100	**3 842 542 330**

Material: PA, black

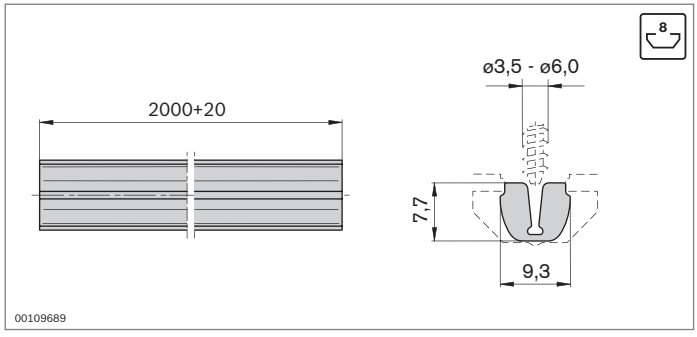


Cover strip profile



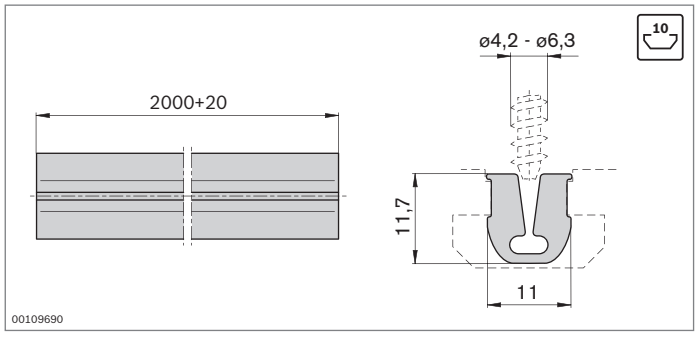
- Cover strip profile for fastening surface elements using commercially available sheet metal screws
- Clipping the cover strip profile into the profile slot
- Inexpensive connection element

Required accessories:
Sheet metal screws for fastening surface elements



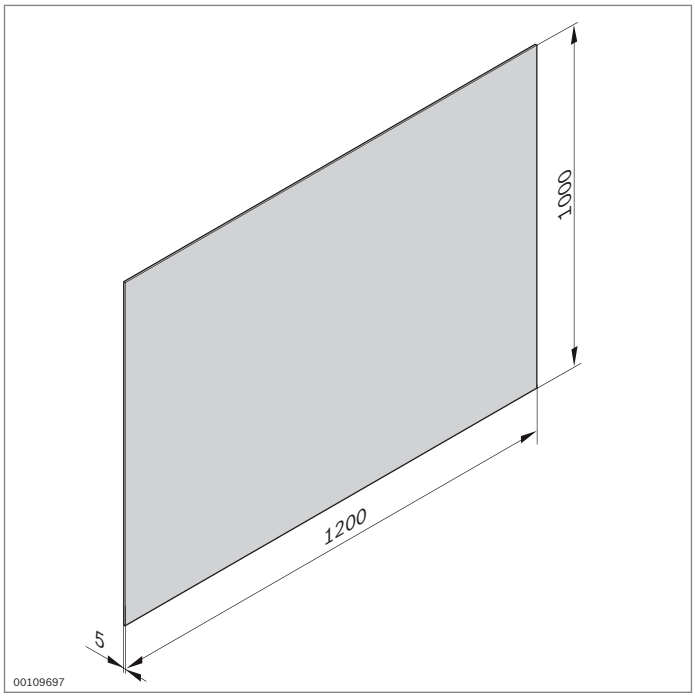
Cover strip profile	Slot	L (mm)	No.
	8	2000	**3 842 524 069**

Material: PVC, light gray RAL 7035



Cover strip profile	Slot	L (mm)	No.
	10	2000	**3 842 524 072**

Material: PVC, light gray RAL 7035



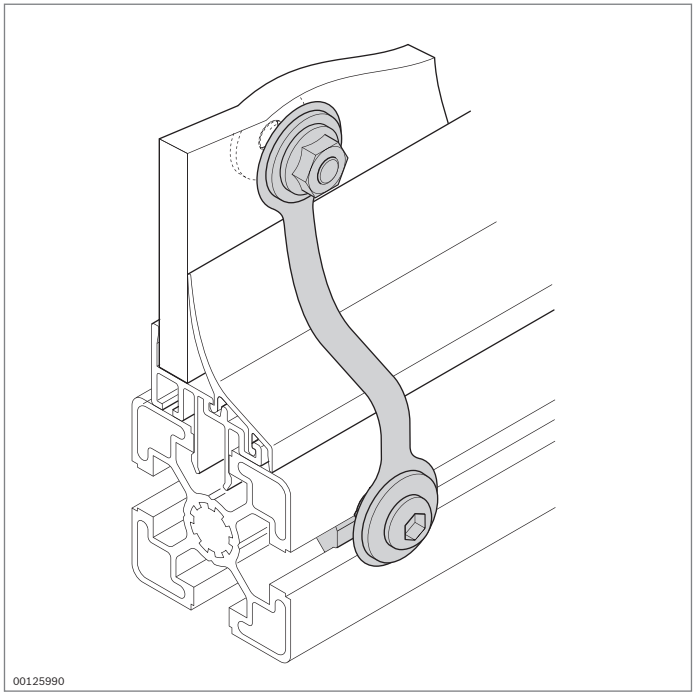
Universal plate

- For the construction of tablets, material shuttles, or privacy shields on tables or frames

Accessories:
Frame profile, support of surface elements

Universal plate	ESD	No.
PP		**3 842 516 837**
PS	⍾	**3 842 516 838**

Material: PP: gray, smooth on one side, grained on the other
PS: black, smooth on both sides



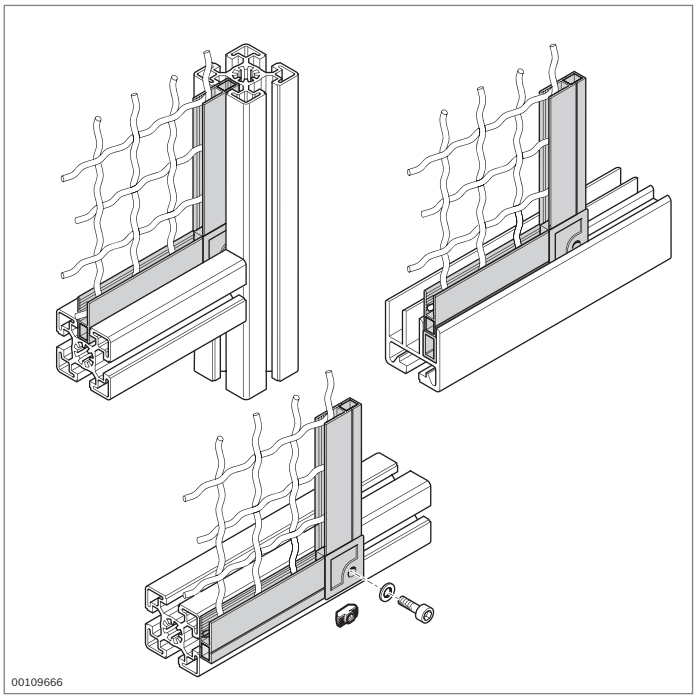
Potential equalizer

- To establish a defined electrostatic conduction between surface elements and strut profiles

Potential equalizer	ESD		No.
	⍾	10	**3 842 536 148**

Material: Strip steel, stainless
Fastening material: steel, galvanized

Scope of delivery: Incl. fastening material

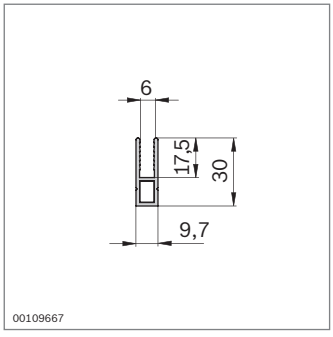


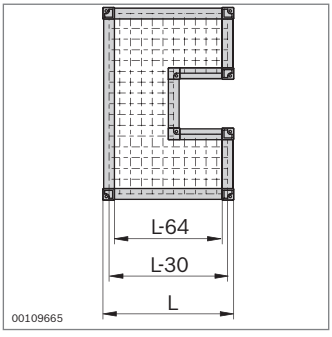
Protective grille profile



- For constructing frames for woven wire grilles or surface elements
- For woven wire grilles with a wire diameter up to 3.1 mm
- For surface elements up to 6 mm thick
- Screw fitting of frame to the outside of strut profiles (subsequent installation)
- For inserting the frame into the slot of a strut profile or a sliding door profile Al 45
- Corner pieces for inner and outer corners

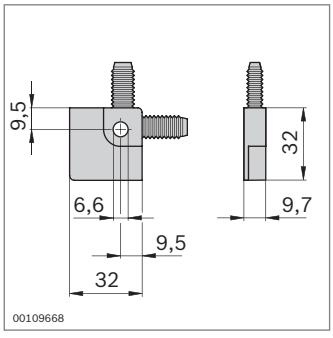
Optional accessories:
- T-nut M6 (p. 3-4)
- Screw M6

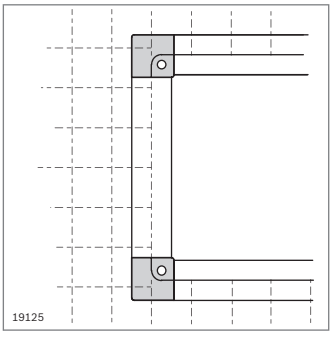




Protective grille profile	L (mm)		No.
	3000	20	**3 842 305 766**

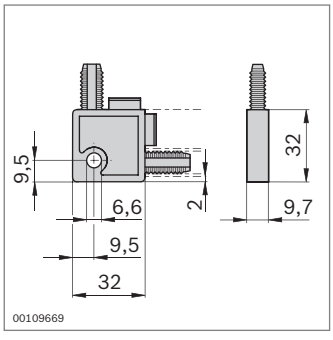
Material: Aluminum, black anodized

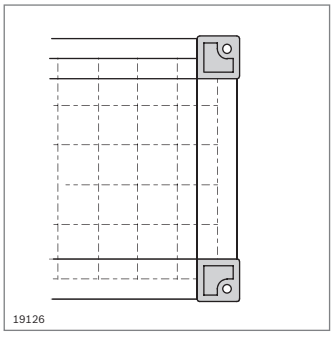




Inner corner piece		No.
	20	**3 842 305 768**

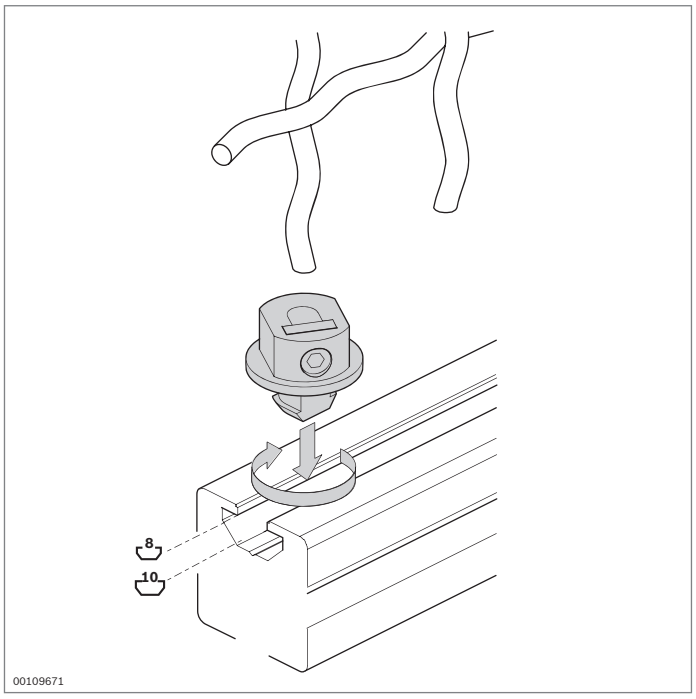
Material: PA, black





Outer corner piece		No.
	20	**3 842 305 767**

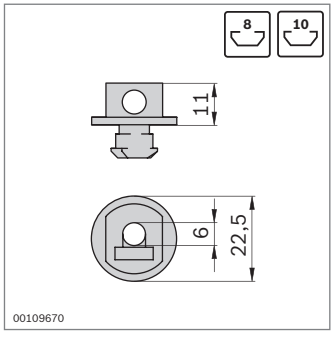
Material: PA, black

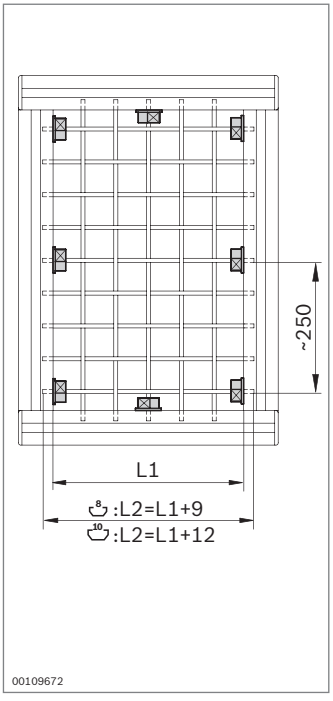


Clamp bushing



- For fastening woven wire grilles in the profile slot
- For woven wire grilles with a wire diameter up to 3.1 mm
- Suitable for 8 mm and 10 mm slots
- Inexpensive connection element
- Rattle-free attachment





Clamp bushing	Slot		No.	FS
	8, 10	100	**3 842 515 244**	FS1

Material: Diecast zinc
Fastening material: steel, galvanized, chromated transparent

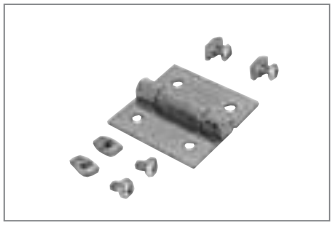
FS1

EN ISO 4027 M6x10
DIN 562 M6-04

Doors and fittings



Hinge profile (p. 8-3)



Hinge (p. 8-4)



Hinge, plastic (p. 8-5)



Hinge, aluminum (p. 8-6)



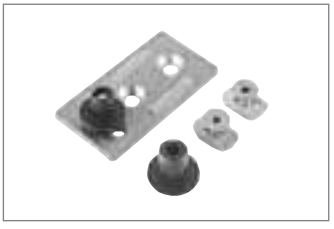
LIFTOFF hinge (p. 8-7)



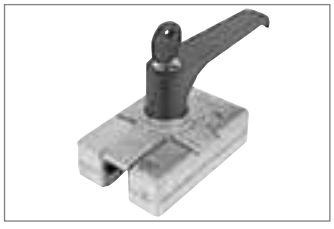
Hinge, removable (p. 8-8)



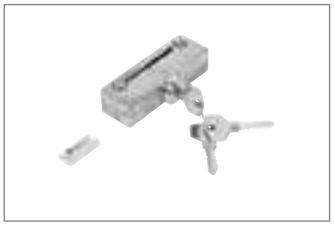
Hinge, adjustable (p. 8-9)



Folding door element (p. 8-10)



Lock for swing and sliding doors (p. 8-11)



Lock (p. 8-12)



Lock for EcoSafe sliding doors (p. 8-13)



Mortise lock, door handle (p. 8-14)



Lock for swing doors
(p. 8-16)



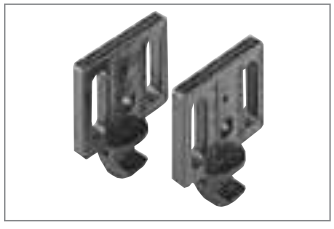
Strap-shaped handle
(p. 8-17)



Safety handle (p. 8-18)



Sealing strip (p. 8-19)
Sealing profile (p. 8-20)



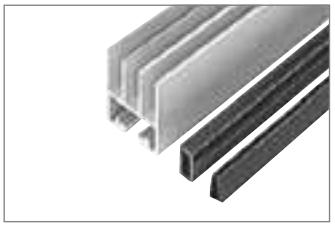
Slider (p. 8-21)



Sliding door profile PVC
(p. 8-22)



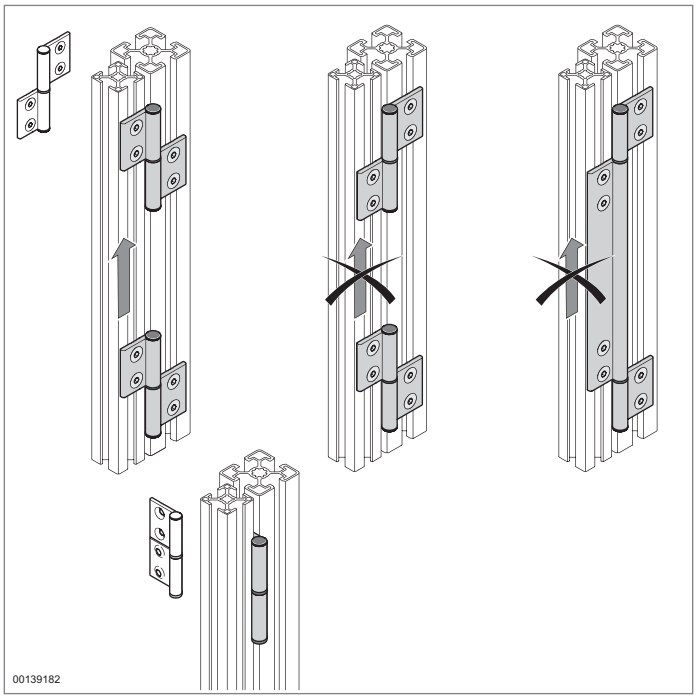
Sliding door profile Al Clip
(p. 8-23)



Sliding door profile Al 45
(p. 8-24)



Edge protector, door handle
profile (p. 8-26)

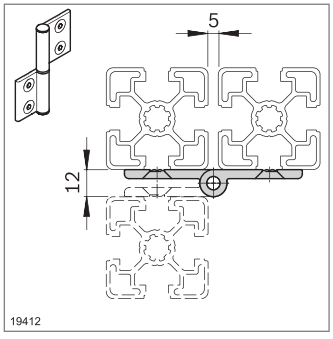


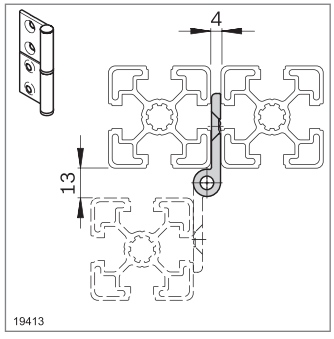
Hinge profile

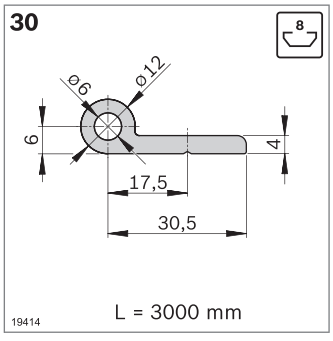


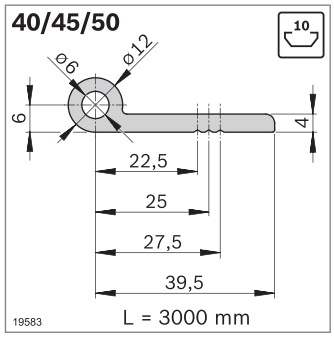
- For self-assembly of hinges or hinge bands
- Possible to use as a non-transparent hinge band to fully cover the door gap
- Hinge profiles for slot dimensions 30 and 40/45/50 can also be combined for maximum flexibility
- For doors with profile frames or doors made of solid surface elements
- Assembly on exterior or interior
- Assembly as removable and non-removable hinges
- Opening to the right and left
- Centering slots as a drill guide for mounting bores
- Required finishing:
  - Cut the hinge halves to length
  - Drill for fixing

Required accessories:
- Hinge pins
- T-nut M6 (p. 3-4)
- Screw ISO 10642 M6x12 (8 mm slot)
- Screw ISO 10642 M6x16 (10 mm slot)

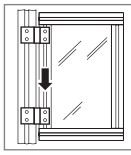




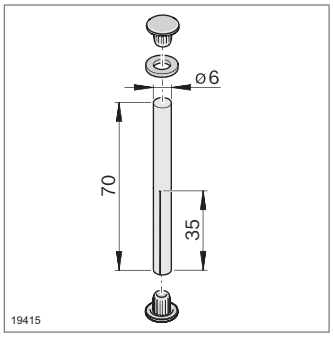




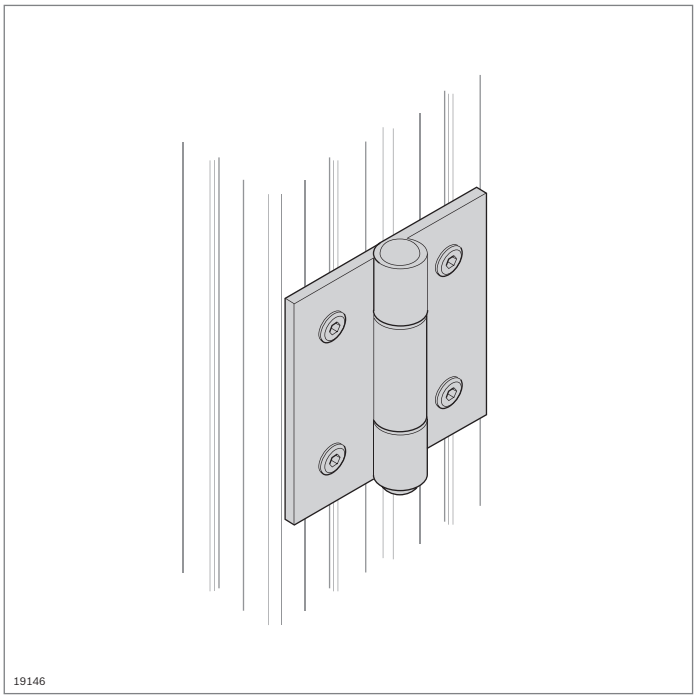
Hinge profile	L (mm)		No.
30	3000	10	**3 842 543 371**
40/45/50	3000	10	**3 842 543 372**
Material:	Aluminum, anodized		



F_{max} = 300 N

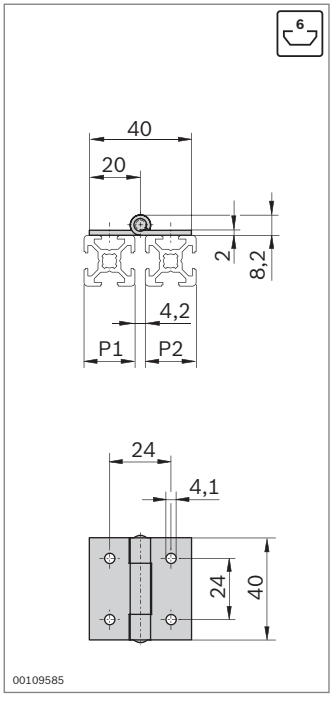


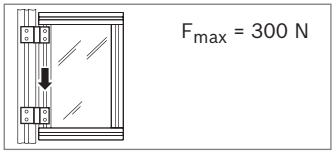
Hinge pins		No.
	10	**3 842 544 661**
Material:	Grooved pin: steel, galvanized Washer, cover cap: PA	
Scope of delivery:	Incl. grooved pin, 2x cover cap, washer	



Hinge

- Assembly possible on solid surface elements
- For small doors and flaps
- Steel hinge for profiles with 6 mm slot

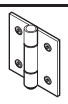




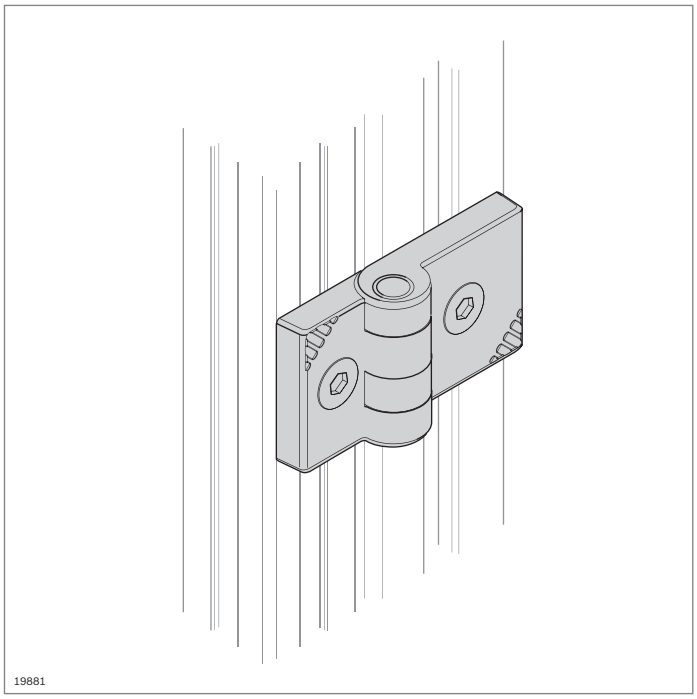
FS1

ISO 7380
M4x6

6

Hinge	P1 (mm)	P2 (mm)	ESD		No.	FS
	20	20		2	**3 842 535 684**	4xFS1

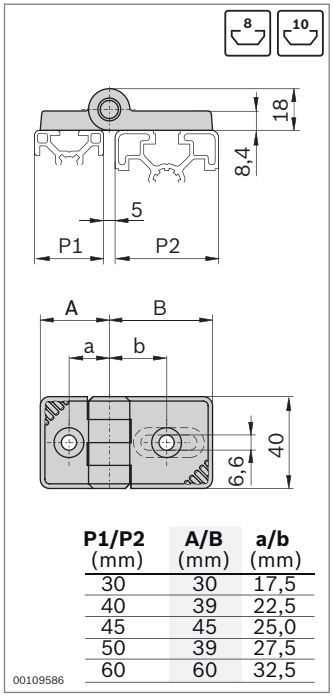
Material:	Steel, stainless Fastening material: steel, galvanized, chromated transparent
Scope of delivery:	Incl. fastening material (FS)



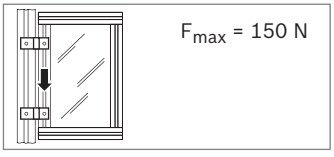
Hinge, plastic

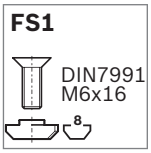


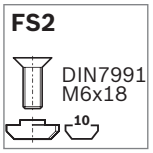
- Plastic hinge for profiles with 8 mm or 10 mm slot
- Assembly possible on solid surface elements
- Centering bolts for easy assembly and as a anti-torsion element



P1/P2 (mm)	A/B (mm)	a/b (mm)
30	30	17,5
40	39	22,5
45	45	25,0
50	39	27,5
60	60	32,5



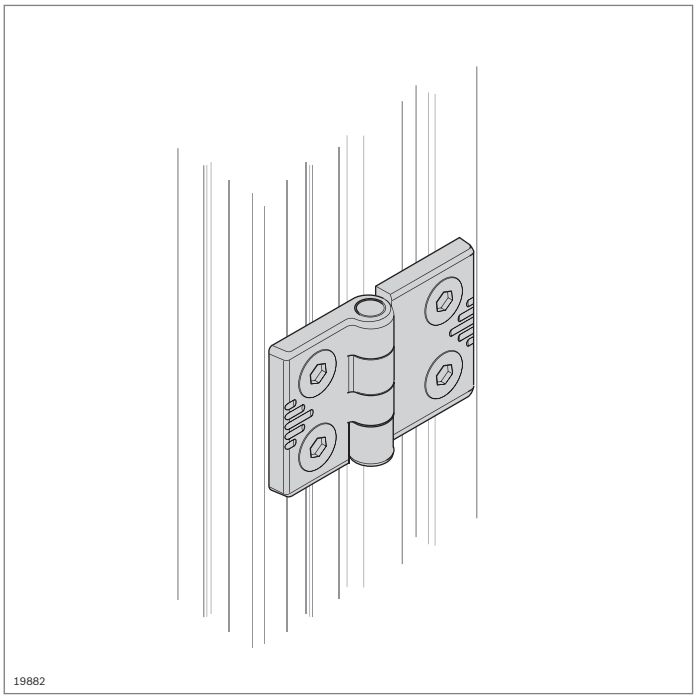




Hinge, plastic	P1 (mm)	P2 (mm)		No.	FS
	30	30	2	**3 842 544 500**	2xFS1
	30	40/50	2	**3 842 544 501**	1xFS1, 1xFS2
	30	45	2	**3 842 544 502**	1xFS1, 1xFS2
	30	60	2	**3 842 544 503**	1xFS1, 1xFS2
	40/50	40/50	2	**3 842 544 504**	2xFS2
	45	45	2	**3 842 544 505**	2xFS2
	45	60	2	**3 842 544 506**	2xFS2
	60	60	2	**3 842 544 507**	2xFS2

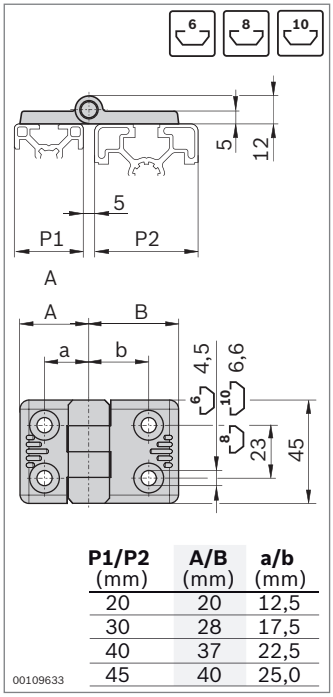
Material: PA, black
Hingepin: steel, galvanized
Fastening material: steel, galvanized, chromated transparent

Scope of delivery: Incl. fastening material (FS)

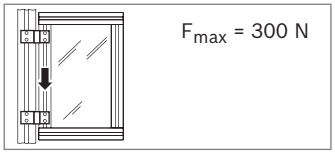


Hinge, aluminum

- Aluminum hinge for all slot systems
- Assembly possible on solid surface elements
- High-quality version
- Conductive version
- Suitable for use under cleanroom conditions thanks to wear-resistant guide bushings



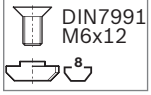
P1/P2 (mm)	A/B (mm)	a/b (mm)
20	20	12,5
30	28	17,5
40	37	22,5
45	40	25,0



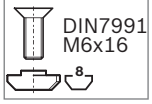
FS1



FS2



FS3

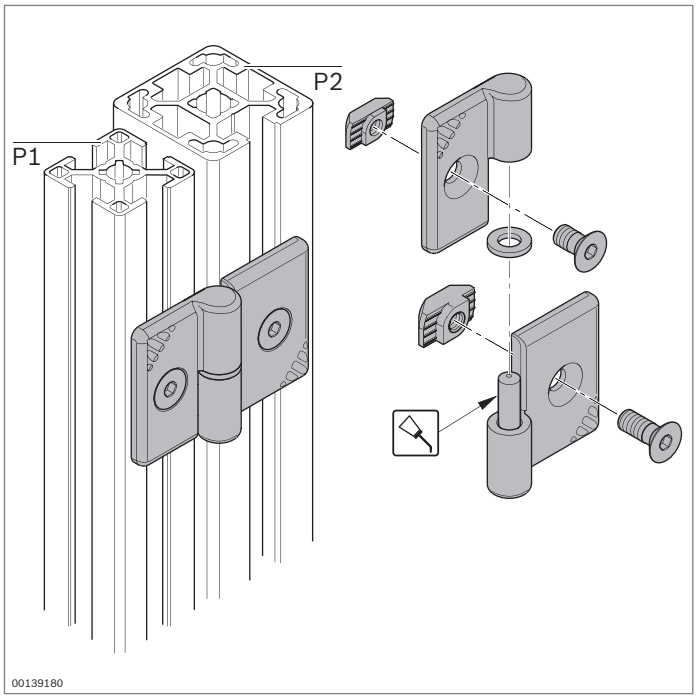


Hinge, aluminum	P1 (mm)	P2 (mm)	ESD		No.	FS
	20	20	ESD	2	**3 842 544 525**	4xFS1
	20	30	ESD	2	**3 842 544 526**	2xFS1, 2xFS2
	30	30	ESD	2	**3 842 544 527**	4xFS2
	30	40	ESD	2	**3 842 544 528**	2xFS2, 2xFS3
	30	45	ESD	2	**3 842 544 529**	2xFS2, 2xFS3
	40	40	ESD	2	**3 842 544 530**	4xFS3
	45	45	ESD	2	**3 842 544 531**	4xFS3

Material: Diecast aluminum, nickel-plated
Fastening material: steel, galvanized, chromated transparent

Scope of delivery: Incl. fastening material (FS)

Fraunhofer IPA TESTED DEVICE
Report No. BO 9903-159

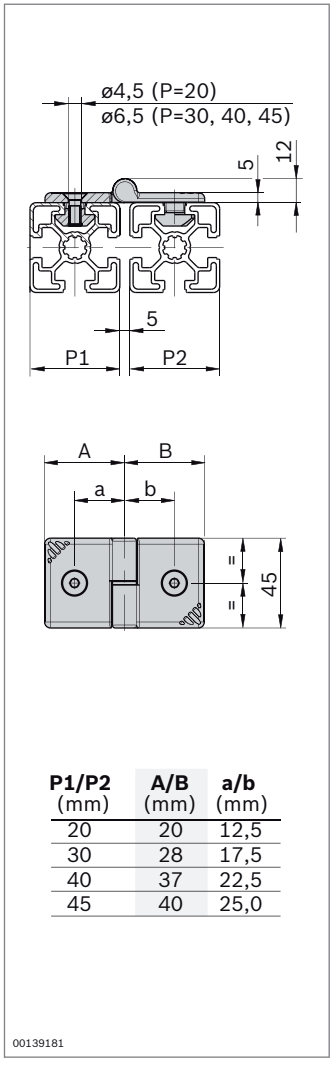


LIFTOFF hinge

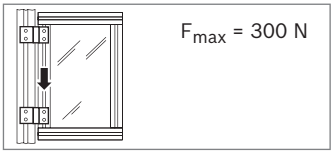


designLINE

- Removable compact hinge, opening to the right or left
- *designLINE* version with special silver paint (RAL 9006) for an attractive, high-quality design
- Centering lugs as an assembly aid and twist lock



P1/P2 (mm)	A/B (mm)	a/b (mm)
20	20	12,5
30	28	17,5
40	37	22,5
45	40	25,0

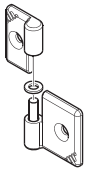
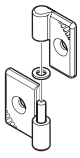


FS1
DIN7991 M4x8
6

FS2
DIN7991 M6x12
8

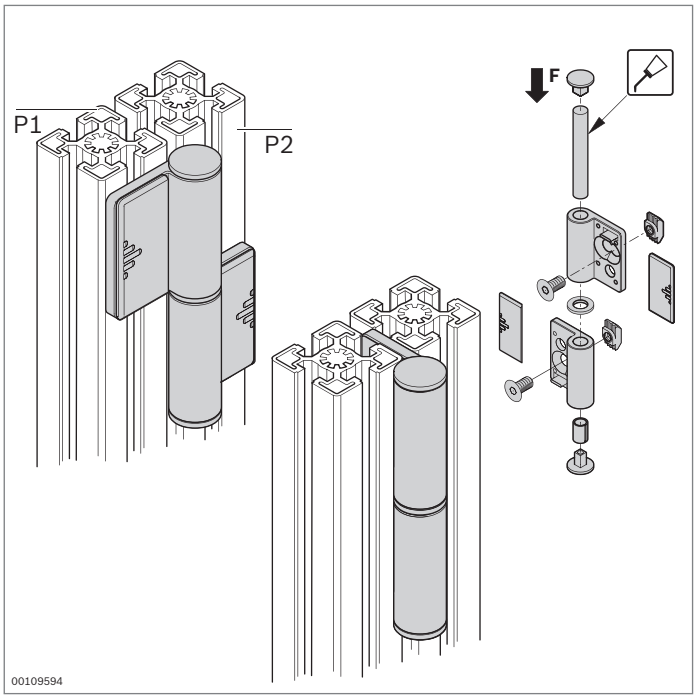
FS3
DIN7991 M6x16
10

FS4
DIN 125 A6,4

LIFTOFF hinge	P1 (mm)	P2 (mm)		No.	FS
Right	20	20	2	**3 842 543 334**	2xFS1, FS4
	20	30	2	**3 842 543 333**	FS1, FS2, FS4
	30	30	2	**3 842 543 332**	2xFS2, FS4
	30	40	2	**3 842 543 331**	FS2, FS3, FS4
	30	45	2	**3 842 543 330**	FS2, FS3, FS4
	40	40	2	**3 842 543 329**	2xFS3, FS4
	45	45	2	**3 842 543 328**	2xFS3, FS4
Left	20	20	2	**3 842 543 327**	2xFS1, FS4
	20	30	2	**3 842 543 326**	FS1, FS2, FS4
	30	30	2	**3 842 543 325**	2xFS2, FS4
	30	40	2	**3 842 543 324**	FS2, FS3, FS4
	30	45	2	**3 842 543 323**	FS2, FS3, FS4
	40	40	2	**3 842 543 322**	2xFS3, FS4
	45	45	2	**3 842 543 321**	2xFS3, FS4

Material: Hinge: diecast aluminum, painted
Fastening material: steel, galvanized, chromated transparent
Grooved pin: steel, galvanized
Washer: PA

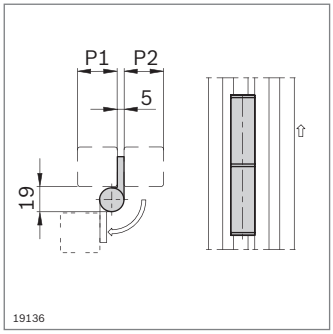
Scope of delivery: Incl. fastening material (FS)

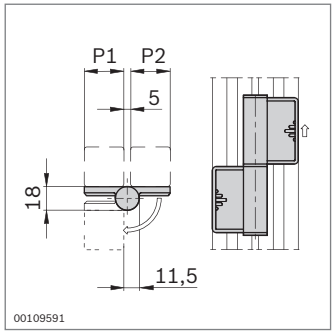


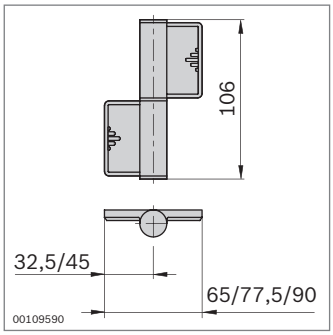
Hinge, removable

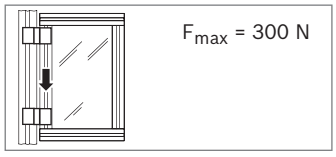


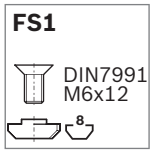
- For constructing large, heavy doors
- Removable
- For left and right stop
- Outside attachment: opening angle approx. 180°
- Inside attachment: prevents removal by unauthorized persons, e.g. on protective barriers

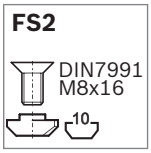










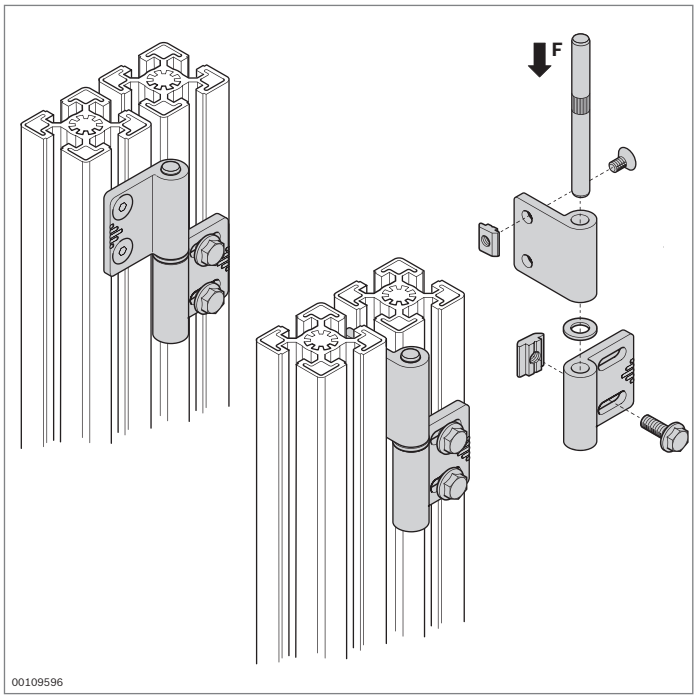


Hinge, removable	**P1** (mm)	**P2** (mm)		**No.**	**FS**
	30	30	2	**3 842 544 552**	2xFS1
	30	45	2	**3 842 544 553**	1xFS1,
	30[1)]	60			1xFS2
	45	45	2	**3 842 544 554**	2xFS2
	45[1)]	60			
	60[1)]	60			

[1)] Not suitable for assembly on inner side

Material: Hinge: diecast zinc
Cap: PA, black
Fastening material: steel, galvanized, chromated transparent

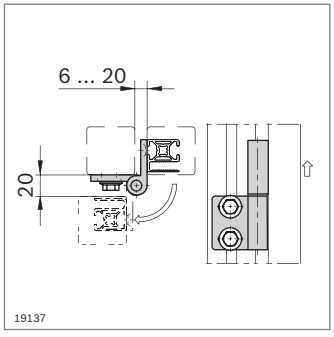
Scope of delivery: Incl. fastening material (FS), 2x cap

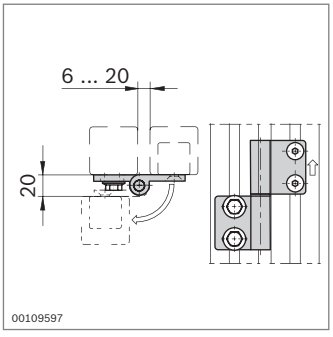


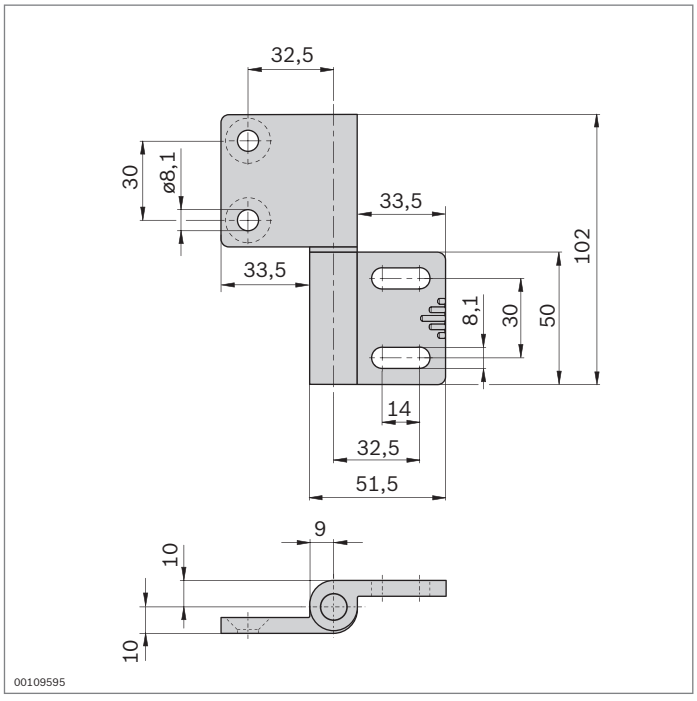
Hinge, adjustable



- For constructing large, heavy doors
- Adjustable for compensating clearance tolerances
- Removable
- For left and right stop
- Opening angle approx. 180°



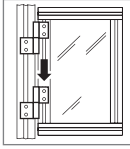




Hinge, adjustable		No.	FS
	2	**3 842 544 562**	2xFS1, 2xFS2

Material: Diecast aluminum
Fastening material: steel, galvanized, chromated transparent

Scope of delivery: Incl. fastening material (FS)

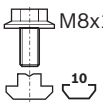


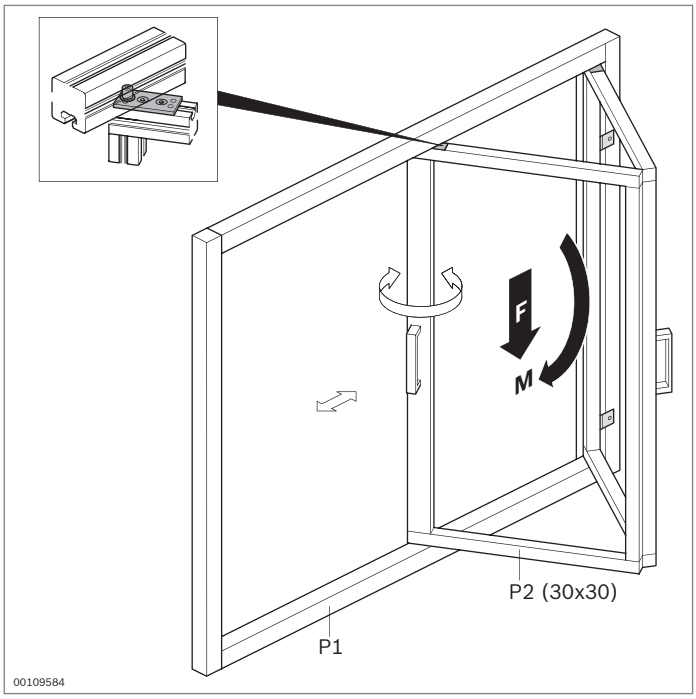
F_{max} = 300 N

FS1



FS2

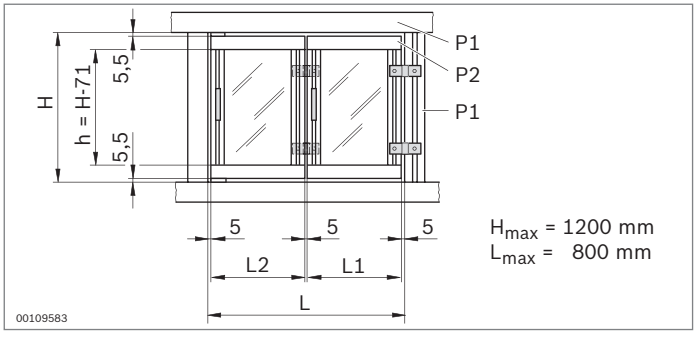




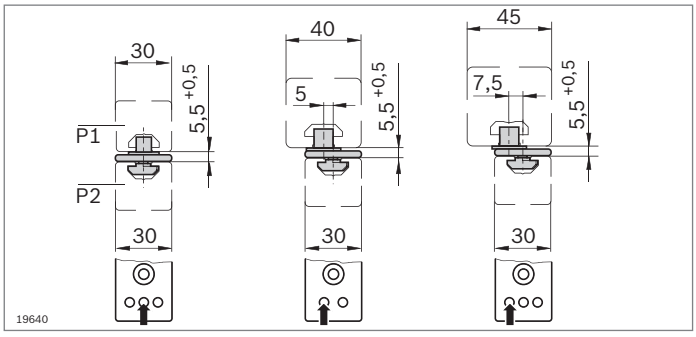
Folding door element

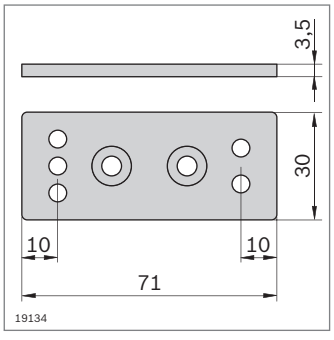


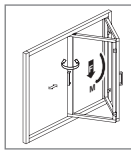
- For a simultaneous swinging and sliding action on folding doors made of 30 mm profiles
- Extremely long service life (approx. 50,000 actuations)
- Matches frames made of profiles with 8 mm and 10 mm slot
- The frame and door profile are always flush (the guide ring position depends on the thickness of the frame profile)



P2 (mm)	**P1** (mm)	**L1** (mm)	**L2** (mm)
30x30	45x45	0.5L - 29.5	0.5L + 14.5
	40x40	0.5L - 28.3	0.5L + 13.3
	30x30	0.5L - 25.8	0.5L + 10.8







F_{max} = 120 N
M_{max} = 20 Nm

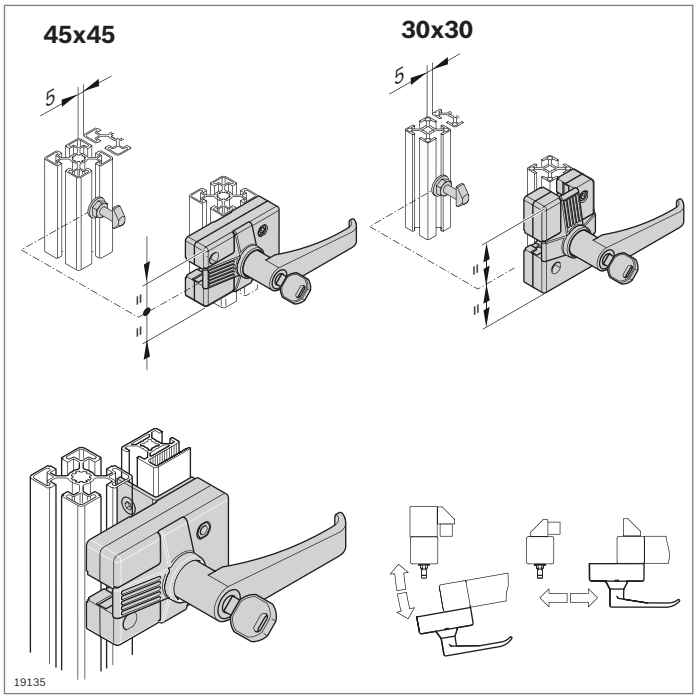
FS1

DIN 7991
M5x10

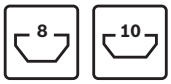


Folding door element	**No.**	**FS**
	3 842 516 715	2xFS1

Material:	Folding door element: diecast zinc Guide ring: PA, black Fastening material: steel, galvanized, chromated transparent
Scope of delivery:	Incl. fastening material (FS)

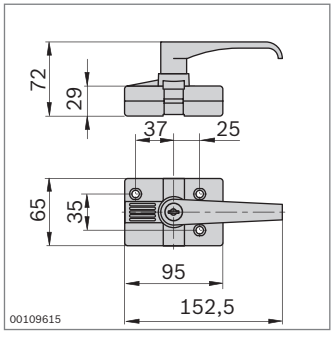


Lock for swing and sliding doors

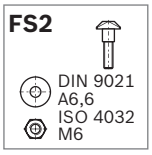


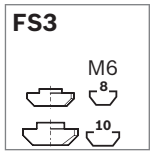
- Opening to the right and left
- Suitable for profiles 45x45 and 30x30
- “Standard locking” variant with random key selection (each lock has a different key)
- “Uniform locking” always uses the same key
- Version with door handle or as two-way lock

Accessories:
Adapter plate





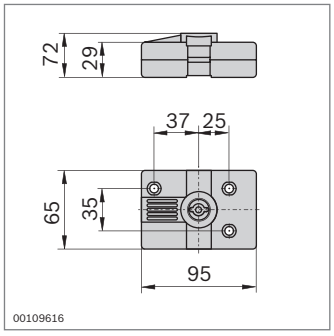




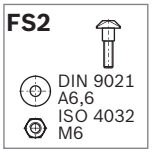
Lock		No.	FS
Standard locking	30x30, 45x45	**3 842 525 821**	2xFS1, 1xFS2, 3xFS3
Uniform locking	30x30, 45x45	**3 842 525 822**	2xFS1, 1xFS2, 3xFS3

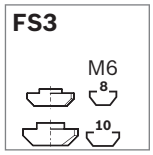
Material: Housing: diecast aluminum
Door handle: PA, black
Fastening material: steel, galvanized, chromated transparent

Scope of delivery: Incl. 3 keys, fastening material (FS)





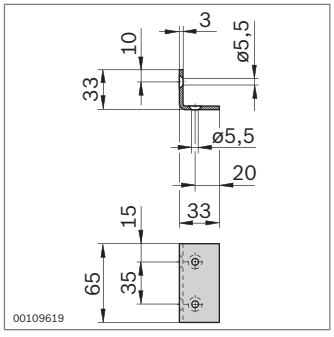


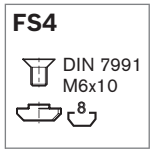


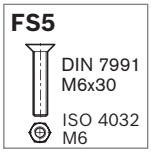
Lock		No.	FS
	30x30, 45x45	**3 842 525 823**	2xFS1, FS2, 3xFS3

Material: Diecast aluminum
Fastening material: steel, galvanized, chromated transparent

Scope of delivery: Incl. two-way key, fastening material (FS)





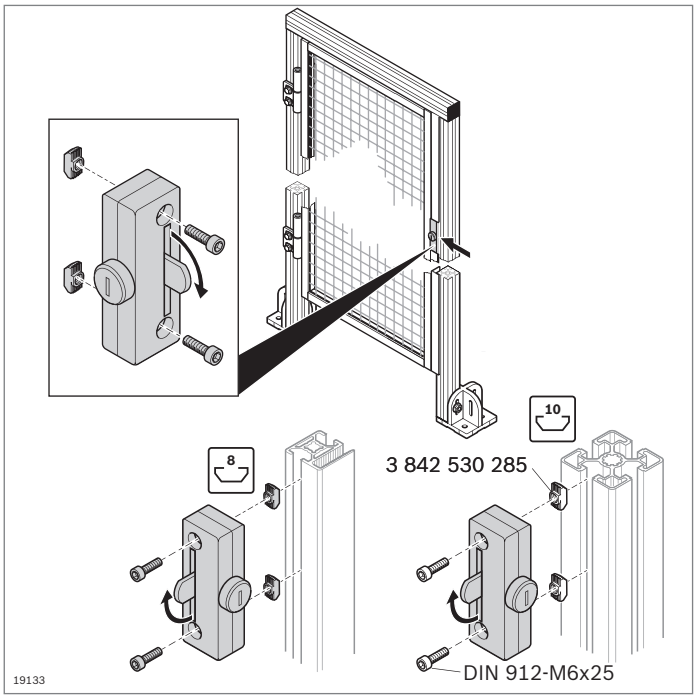


- Adapter plate for mounting the lock to an EcoSafe protective frame (p. 8-13)

Adapter plate	No.	FS
	3 842 523 243	2xFS4, 2xFS5

Material: Steel, galvanized
Fastening material: steel, galvanized, chromated transparent

Scope of delivery: Incl. fastening material (FS)

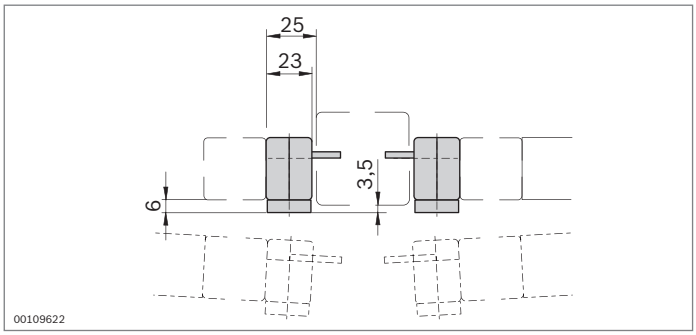


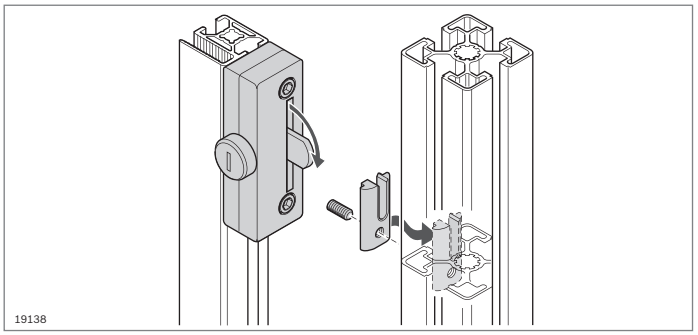
Lock

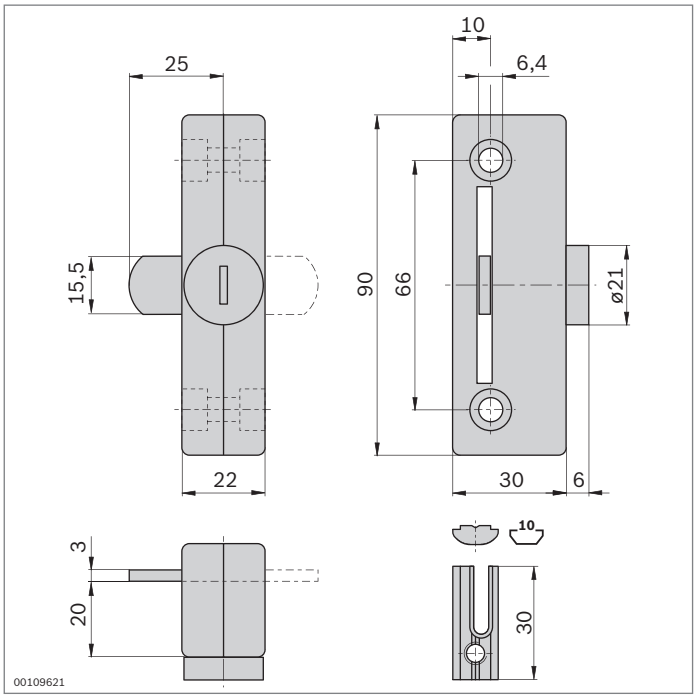


- Opening to the right and left
- For frame profile 30x30 WG (EcoSafe protective fence system); incl. fastening material
- “Standard locking” variant with random key selection (each lock has a different key)
- “Uniform locking” always uses the same key

Accessories for mounting on profile with 10 mm slot:
- 2x T-nut M6, **3 842 530 285** (p. 3-4)
- 2x screw DIN 912-M6x25







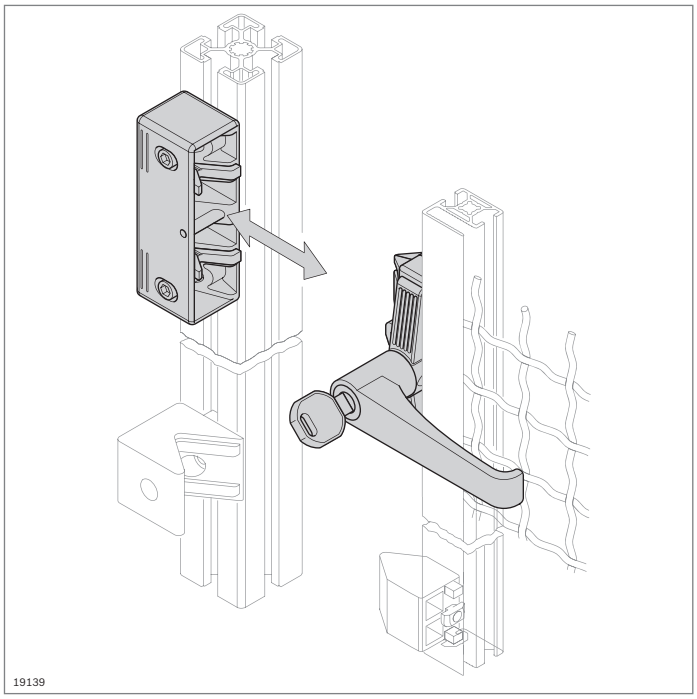
Lock	No.	FS
Standard locking	**3 842 522 479**	2xFS1, 1xFS2
Uniform locking	**3 842 523 320**	2xFS1, 1xFS2

Material: Diecast zinc
Fastening material: steel, galvanized, chromated transparent

Scope of delivery: Incl. 3 keys, fastening material (FS)

FS1
ISO 4762 M6x22
8

FS2
DIN 914 M6x10

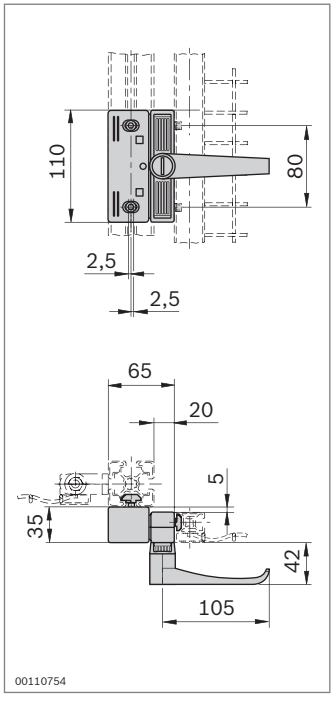


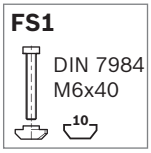
Lock for EcoSafe sliding doors

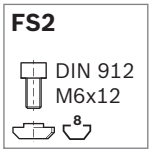


- Opening to the right and left
- "Standard locking" variant with random key selection (each lock has a different key)
- "Uniform locking" always uses the same key

Optional accessories:
Stop kit for a damped closing of the doors (p. 12-5)

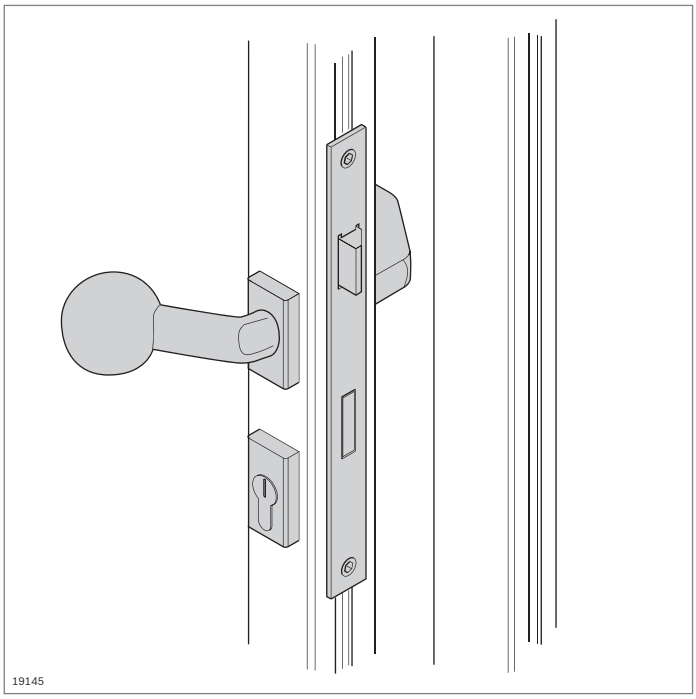






Lock for sliding doors	No.	FS
Standard locking	**3 842 525 946**	2xFS1, 2xFS2
Uniform locking	**3 842 525 947**	2xFS1, 2xFS2

Material:	Housing: diecast aluminum Door handle: PA, black Fastening material: steel, galvanized, chromated transparent
Scope of delivery:	Incl. 3 keys, fastening material (FS)

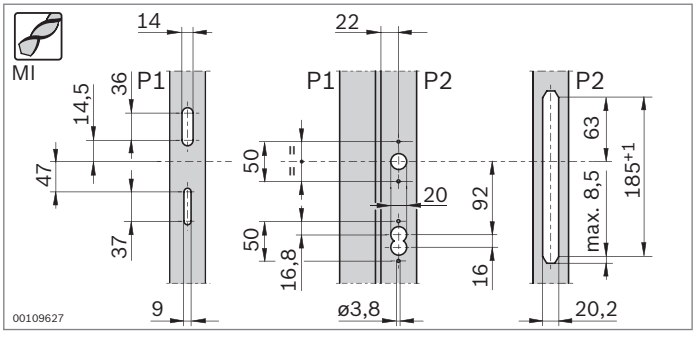


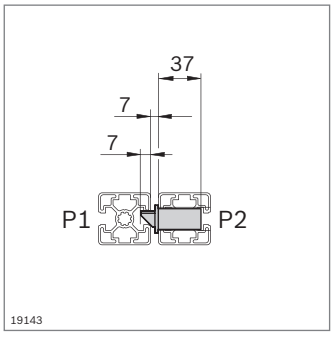
Mortise lock
Door handle

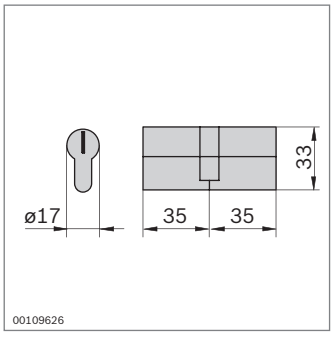


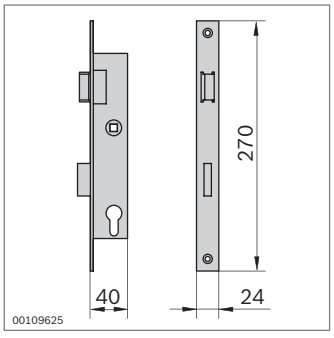
- For installation in profile size 45x45 or larger
- Robust version for withstanding high stresses
- Suitable for installing a commercially available closing cylinder
- Door handle in the variants handle/handle and handle/knob
- Profile finishing: milling

Accessories:
Commercially available closing cylinder



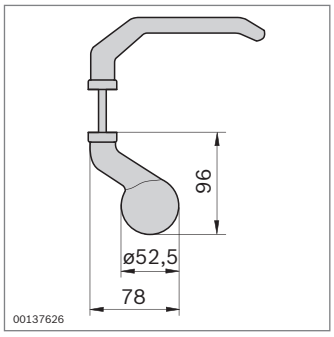






FS1
DIN 7991
M5x12
10

Mortise lock		No.	FS
		3 842 538 241	2xFS1
Material:	Steel, galvanized		
Scope of delivery:	Incl. fastening material (FS)		



FS2

ISO 7051
4,8x22

FS3

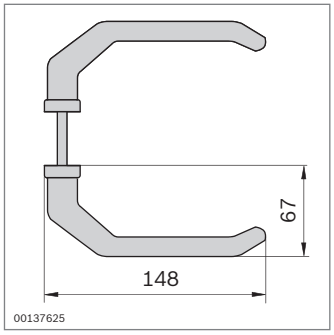
DIN 7991
M5x10

10

Handle/knob	No.	FS
	3 842 542 684	8xFS2, 8xFS3

Material: Light metal
Fastening material: steel, galvanized, chromated transparent

Scope of delivery: Incl. rose escutcheon, fastening material (FS)



FS2

ISO 7051
4,8x22

FS3

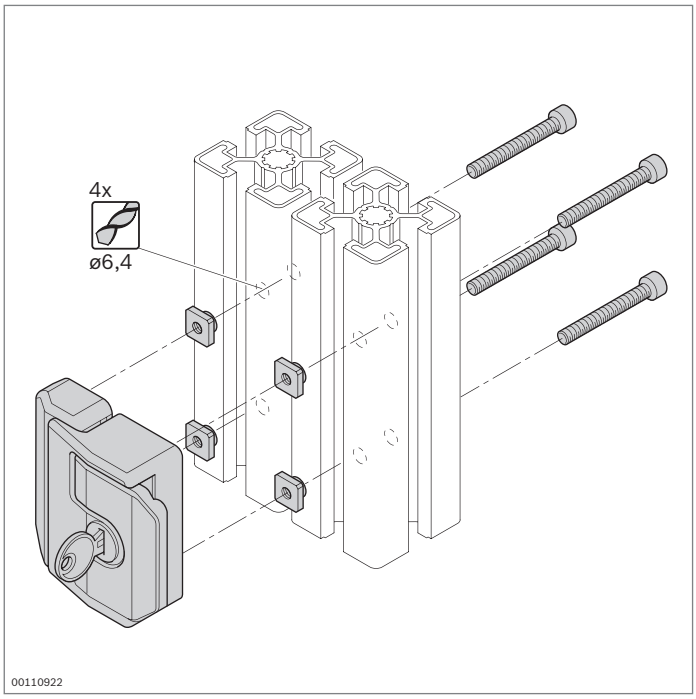
DIN 7991
M5x10

10

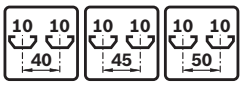
Handle/handle	No.	FS
	3 842 542 683	8xFS2, 8xFS3

Material: Light metal
Fastening material: steel, galvanized, chromated transparent

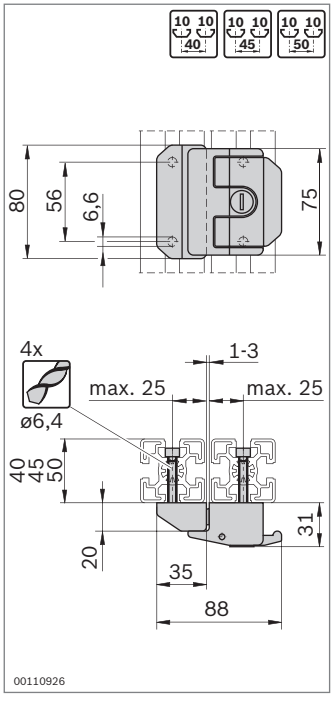
Scope of delivery: Incl. rose escutcheon, fastening material (FS)



Lock for swing doors



- Opening to the right and left
- Self-locking mechanism in the closing position
- Smooth closing
- Ergonomically designed folding handle for opening
- “Standard locking” variant with random key selection (each lock has a different key)
- “Uniform locking” always uses the same key
- Profile finishing: hole D6.4





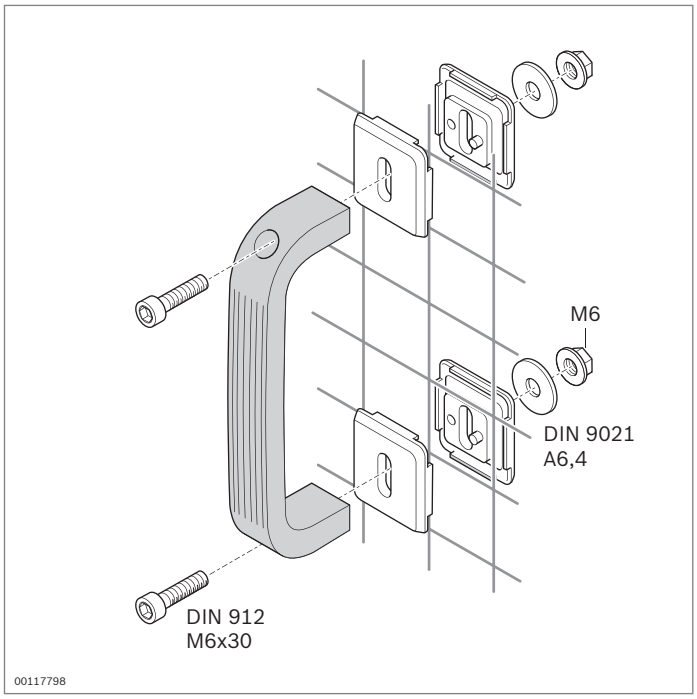






Lock	No.	FS
Standard locking	**3 842 530 353**	4xFS1, 4xFS2, 4xFS3, 4xFS4
Uniform locking	**3 842 530 352**	4xFS1, 4xFS2, 4xFS3, 4xFS4

Material:	Diecast zinc, black powder coating Fastening material: steel, galvanized, chromated transparent
Scope of delivery:	Incl. 2 keys, fastening material (FS)



Strap-shaped handle

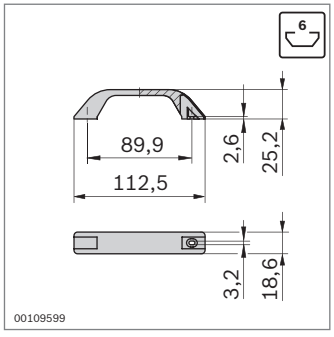


Strap-shaped handle

- Robust construction equipped to handle strong forces
- Fastening in the profile slot or on a woven wire grille with the clamping element
- Suitable for use in ESD-protected environments

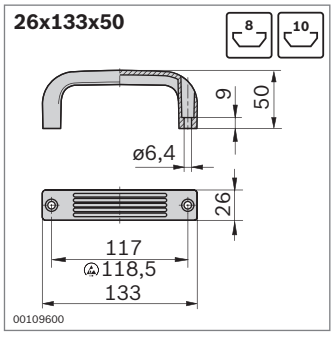
Optional accessories:

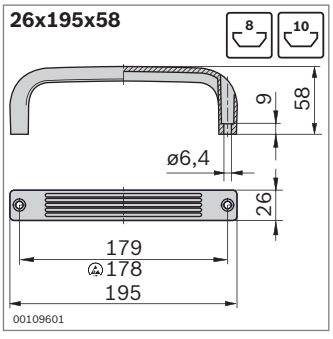
- Clamping element for mounting to a woven wire grille (p. 10-17)
- T-nut (p. 3-4)



Strap-shaped handle		No.
	10	**3 842 518 738**

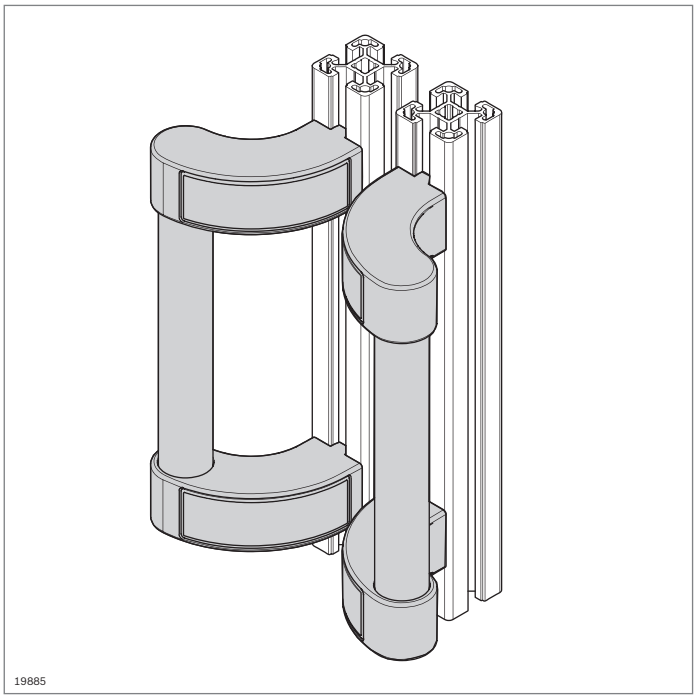
Material: PE, black





Strap-shaped handle	ESD		No.
26x133x50		10	**3 842 525 480**
	ESD	10	**3 842 525 481**
26x195x58		10	**3 842 525 766**
	ESD	10	**3 842 525 767**

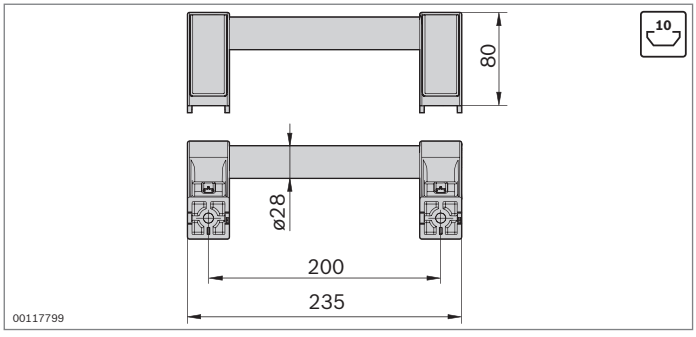
Material: PA, black



Safety handle

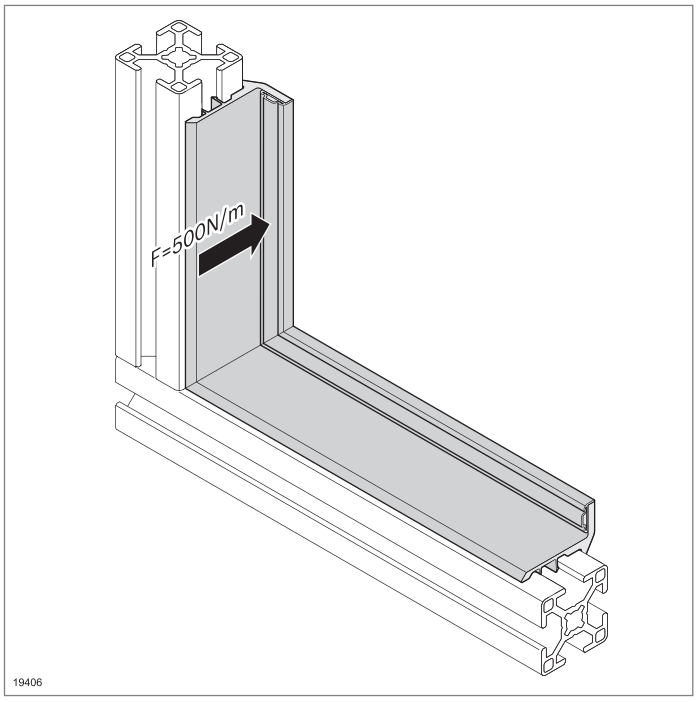


- Prevents injuries caused by catching of body parts during sliding door closing
- Suitable for sliding or swing doors
- The handle length can be varied by exchanging the D28 round tube



Safety handle		No.	FS
		3 842 536 556	2xFS1
Material:	Round tube D28: aluminum, anodized Holder: PA, black		
Scope of delivery:	Incl. fastening material (FS)		

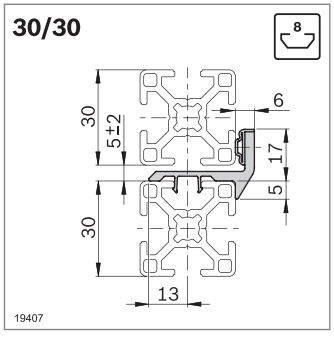




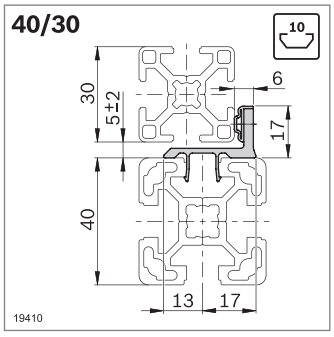
Sealing strip

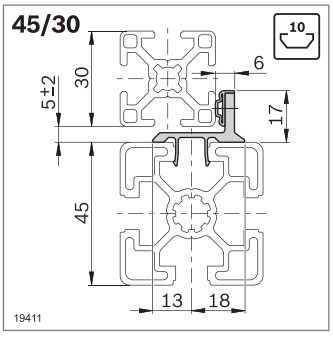


- To seal the doors with an elastic lip seal
- Can be clipped into the groove
- Non-transparent elastic lip seal covering the door gap
- Stop for swing doors (impact force: 500 N/m)
- For flush-closing doors

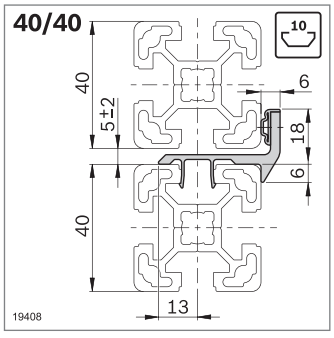


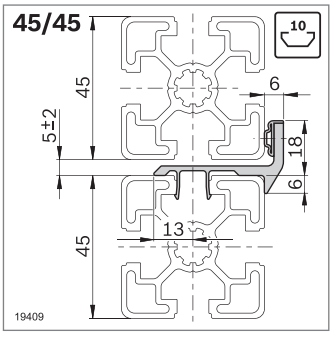
Sealing strip		L (mm)		No.
30/30		3000	10	**3 842 543 412**
Material:	PVC/TPE, light gray RAL 7035			



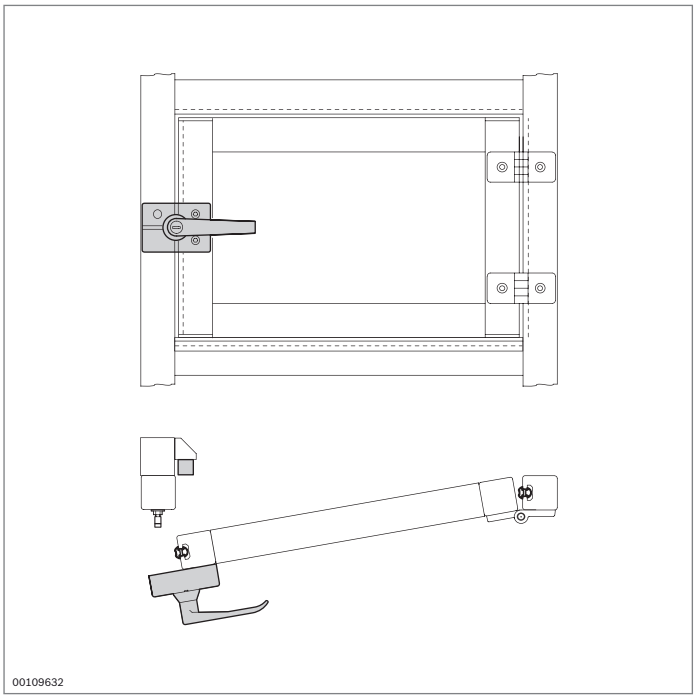


Sealing strip		L (mm)		No.
40/30		3000	10	**3 842 543 411**
45/30		3000	10	**3 842 543 410**
Material:	PVC/TPE, light gray RAL 7035			





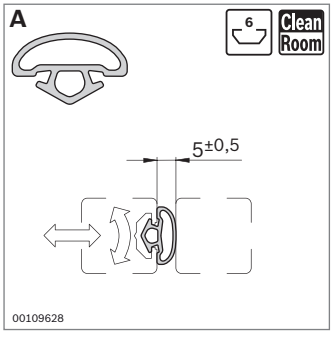
Sealing strip		L (mm)		No.
40/40		3000	10	**3 842 543 409**
45/45		3000	10	**3 842 543 408**
Material:	PVC/TPE, light gray RAL 7035			

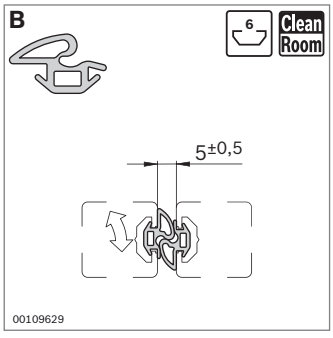


Sealing profile



- For sliding and swing doors
- Prevents particles from entering or escaping

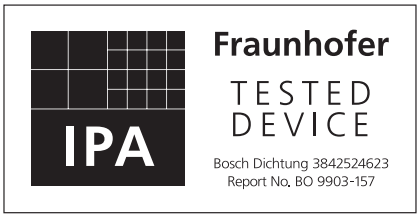


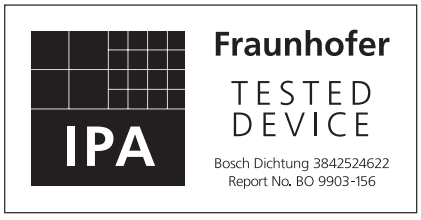


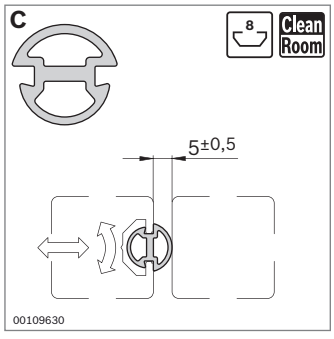
- Suitable for use in cleanroom environments
- Two-piece seal (**B**) also performs a stop function.

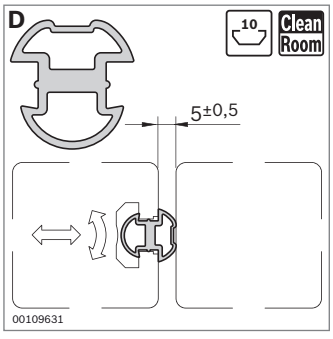
Sealing profile	Slot	L (mm)	No.
A	6	10000	**3 842 524 623**
B	6	10000	**3 842 524 622**

Material: TPE; light gray RAL 7035, hardness: 64° ±5 Shore A



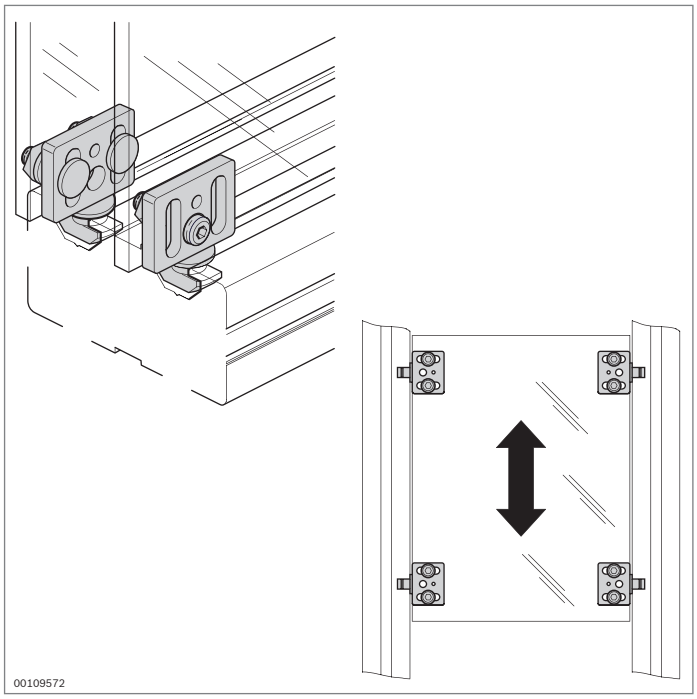






Sealing profile	Slot	L (mm)	No.
C	8	10000	**3 842 516 598**
D	10	10000	**3 842 518 492**

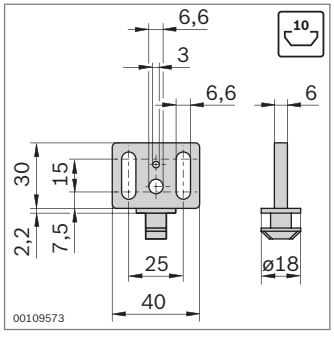
Material: NBR; black, hardness: 60° Shore A



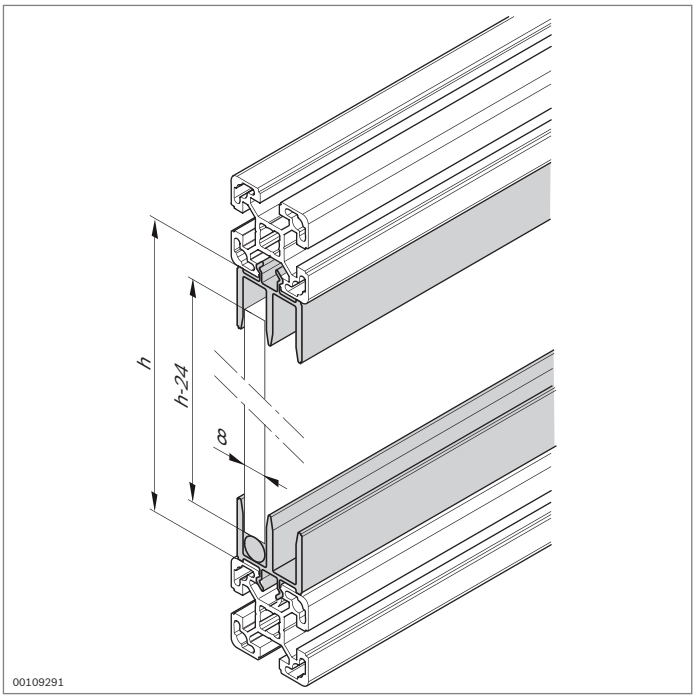
Slider



- For constructing economical sliding and lifting doors
- High functional safety



Slider		No.
	10	**3 842 530 303**
Material:	POM, black	

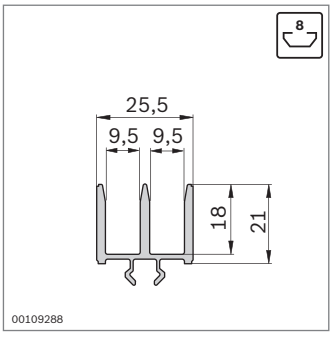


Sliding door profile PVC



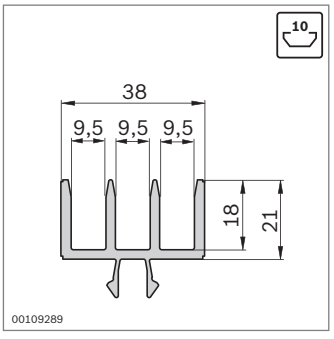
- Can be clipped into the supporting frame constructed from strut profiles
- Round rod to minimize the required feed force
- For surface elements with a thickness of 8 mm
- Insertion of surface element in a closed frame

Optional accessories:
- Edge protector (p. 8-26)
- Door handle profile (p. 8-26)
- Strap-shaped handle (p. 8-17)



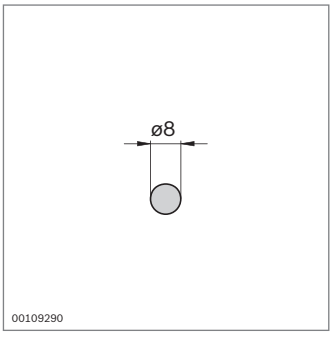
Sliding door profile PVC	Slot	L (mm)		No.
	8	2000	10	**3 842 526 588**

Material: PVC, black



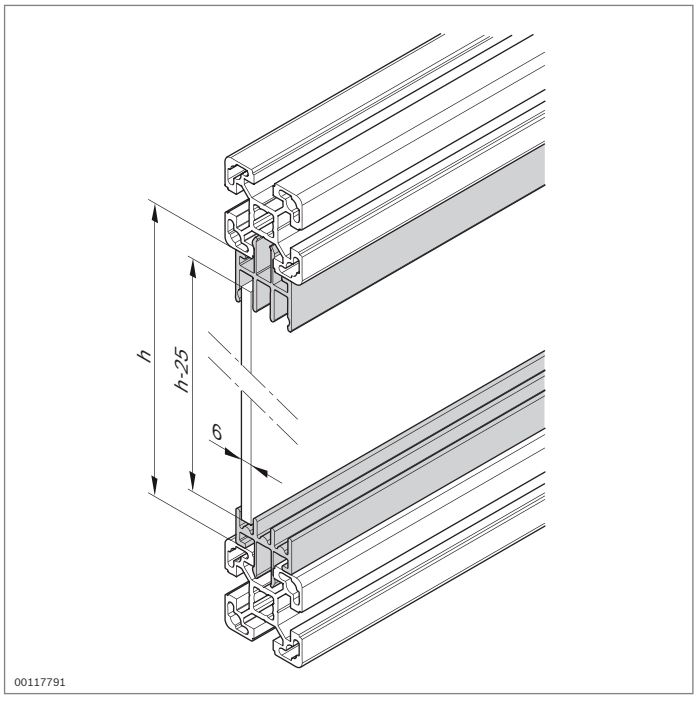
Sliding door profile PVC	Slot	L (mm)		No.
	10	2000	10	**3 842 526 591**

Material: PVC, black



Round rod	L (mm)		No.
	2000	10	**3 842 516 694**

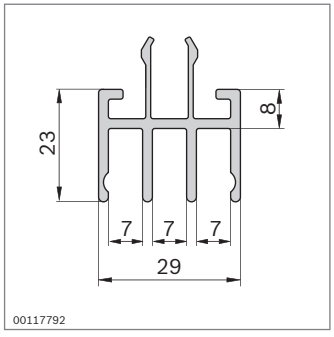
Material: PE, black



Sliding door profile Al Clip

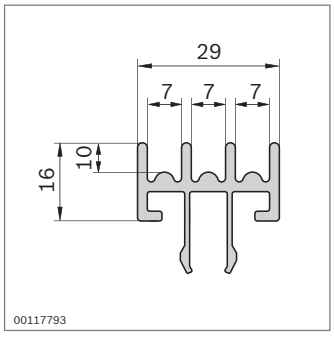


- Can be clipped into the supporting frame constructed from strut profiles
- Sliding door profile, bottom, with half-round floor contour to minimize the required feed force
- For surface elements with a thickness of 5 or 6 mm
- Insertion of surface element in a closed frame



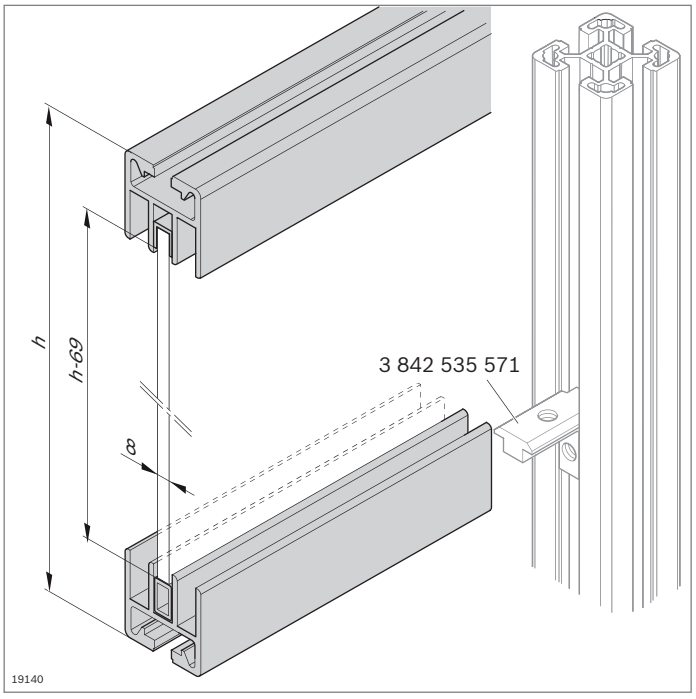
Sliding door profile, top		L (mm)	No.
1 pc		40 ... 3000	**3 842 993 425/L**
10 pcs		3000	**3 842 536 531**

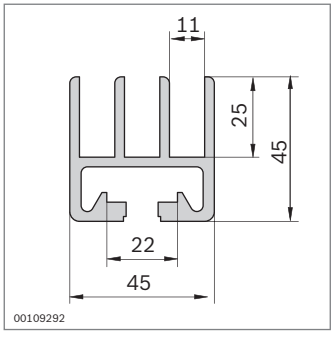
Material: Aluminum, anodized

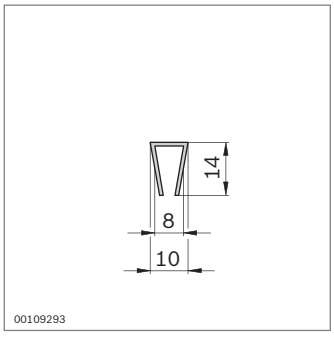


Sliding door profile, bottom		L (mm)	No.
1 pc		40 ... 3000	**3 842 993 426/L**
10 pcs		3000	**3 842 536 532**

Material: Aluminum, anodized







Sliding door profile Al 45
Cap, end piece



Sliding door profile Al 45

- Aluminum profile as a supporting construction element
- Installation using inner brackets between two vertical struts
- Glide profile to enclose the upper sliding door facing
- Insertion profile serves as a gliding surface
- For surface elements with a thickness of 8 mm
- Insertion of surface element in a closed frame

Accessories:

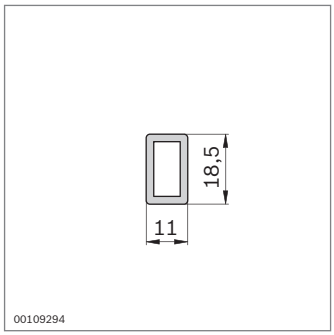
- Cap (p. 8-25)
- End piece (p. 8-25)
- Inner bracket (p. 3-13), inner bracket R (p. 3-14)

Sliding door profile	L (mm)	No.
1 pc	100 ... 5600	**3 842 990 115/L**
1 pc F1 F1	100 ... 5600	**3 842 990 116/L**
20 pcs	5600	**3 842 509 177**

Material: Aluminum, anodized

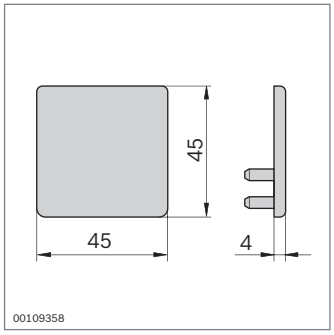
Glide profile	L (mm)		No.
	3000	10	**3 842 146 905**

Material: Hard PVC, black



Insertion profile	L (mm)		No.
	3000	10	**3 842 146 902**

Material: PA, black

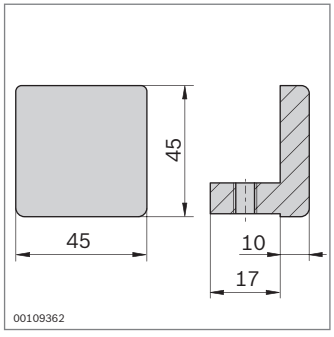


Cap

- As a design element and to protect against injuries

Cap	ESD		No.
		20	**3 842 242 404**

Material: PA, black, conductive



FS1



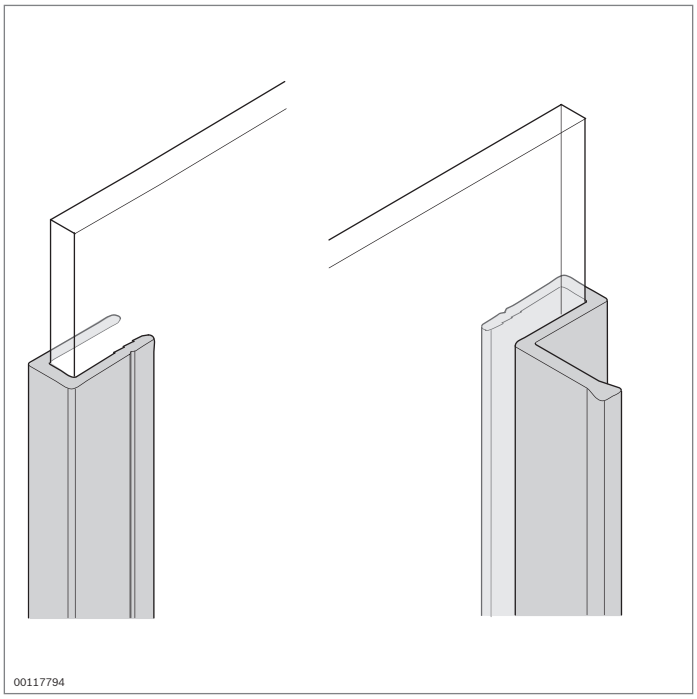
DIN 916
M8x16

End piece

- For use as a stop for sliding elements
- Clamping with socket setscrews in the profile slot

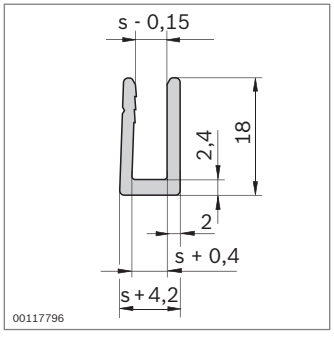
End piece	ESD		No.	FS
		20	**3 842 191 194**	FS1

Material: Diecast aluminum
Scope of delivery: Incl. fastening material (FS)



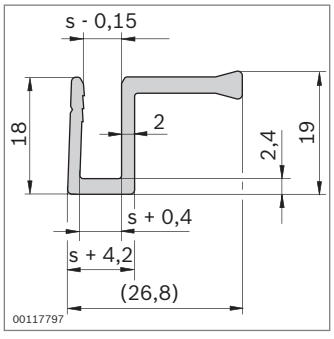
Edge protector
Door handle profile

- To reinforce frameless surface elements in sliding doors
- Profile for s = 6 mm can also be used for 1/4 inch plates



Edge protector		s (mm)	L (mm)	No.
1 pc		5	40 ... 3000	**3 842 993 429/L**
10 pcs		5	3000	**3 842 536 537**
1 pc		6	40 ... 3000	**3 842 993 430/L**
10 pcs		6	3000	**3 842 536 540**

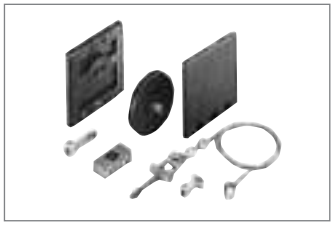
Material: Aluminum, anodized



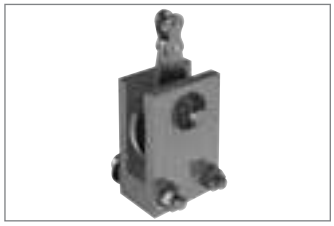
Door handle profile		s (mm)	L (mm)	No.
1 pc		5	40 ... 3000	**3 842 993 427/L**
10 pcs		5	3000	**3 842 536 533**
1 pc		6	40 ... 3000	**3 842 993 428/L**
10 pcs		6	3000	**3 842 536 536**

Material: Aluminum, anodized

Accessories for protective barriers



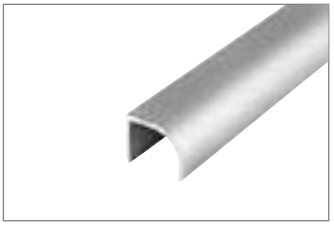
Counterbalance (p. 9-2)



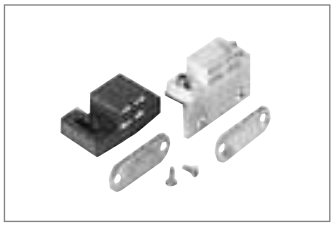
Safety catch (p. 9-4)



Bumper (p. 9-5)



Handle bar (p. 9-5)



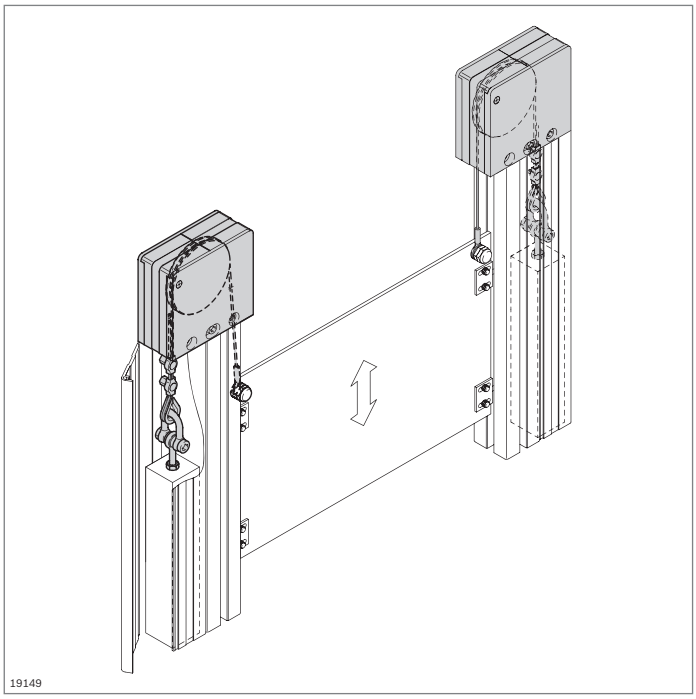
Magnet catch (p. 9-6)



Double ball stop latch (p. 9-7)



Ball catch (p. 9-8)

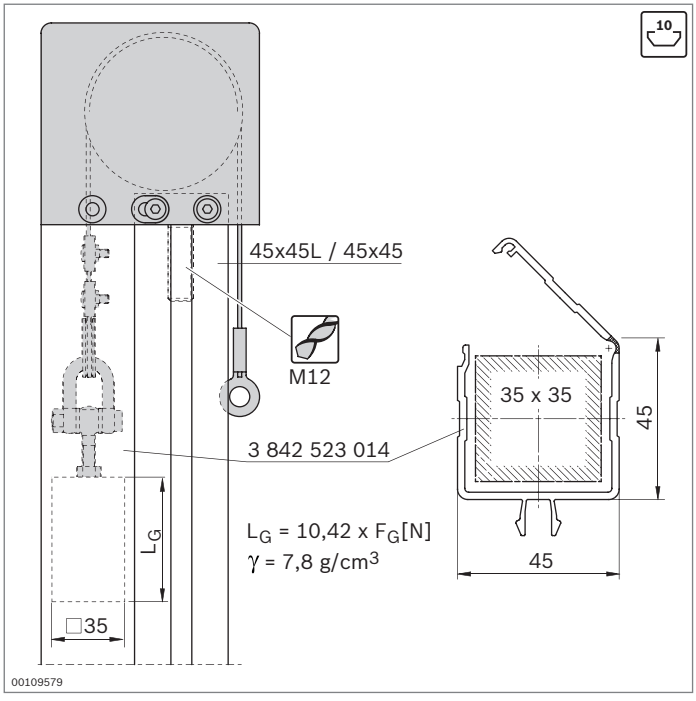


Counterbalance

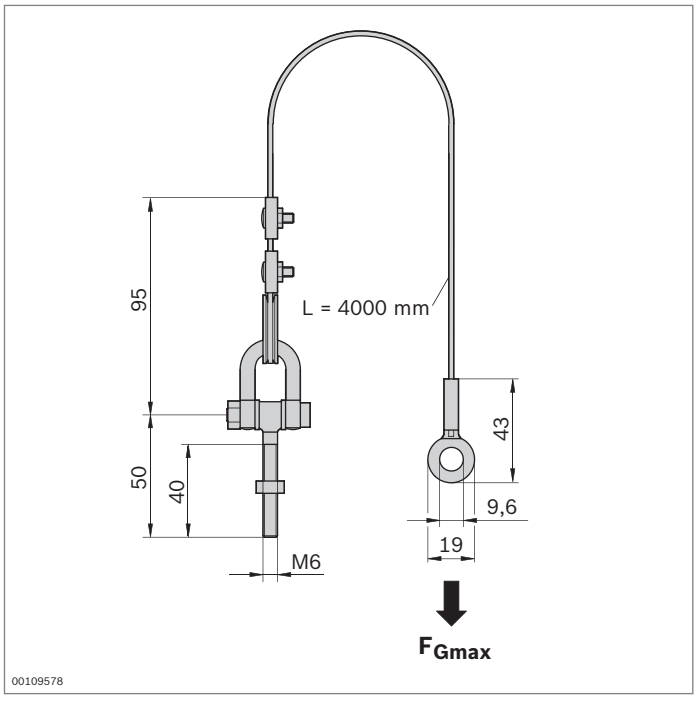
10

- For lifting doors, consisting of a deflection pulley and control cable
- Individually adaptable counterweight; guide recommended in cable duct
- Adaptable cable length
- Service life: 50,000 actuations
- Profile finishing:
  - M12 for fastening the deflection pulley
- Equip lifting doors with a redundant fall arrestor in accordance with the Machinery Directive 2006/42/EC

Required accessories:
Counterweight (square profile 35x35 mm)

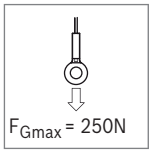


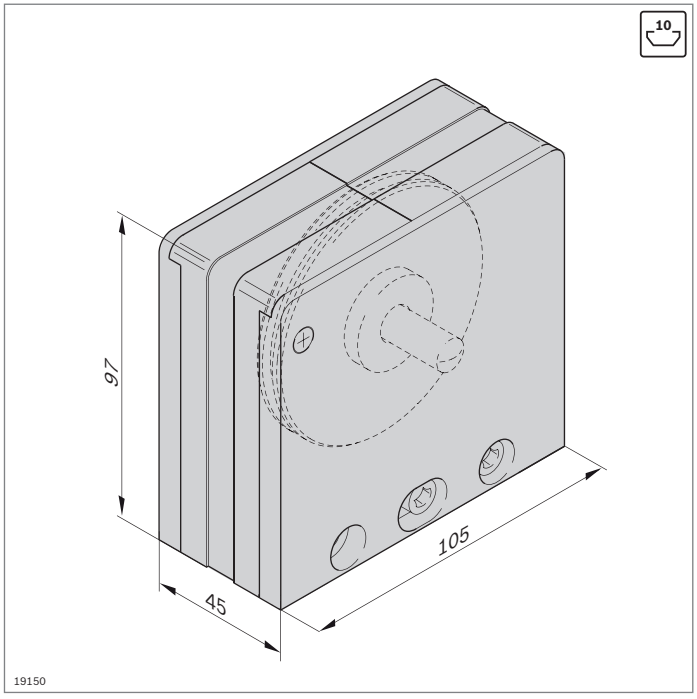
Optional accessories:
- Cable duct 45x45 (p. 11-2)
- Slider (p. 12-3/8-21)
- Safety catch (p. 9-4)



Control cable counterbalance	No.
	3 842 518 798

Material: Steel, stainless

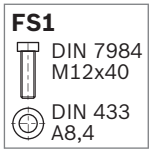




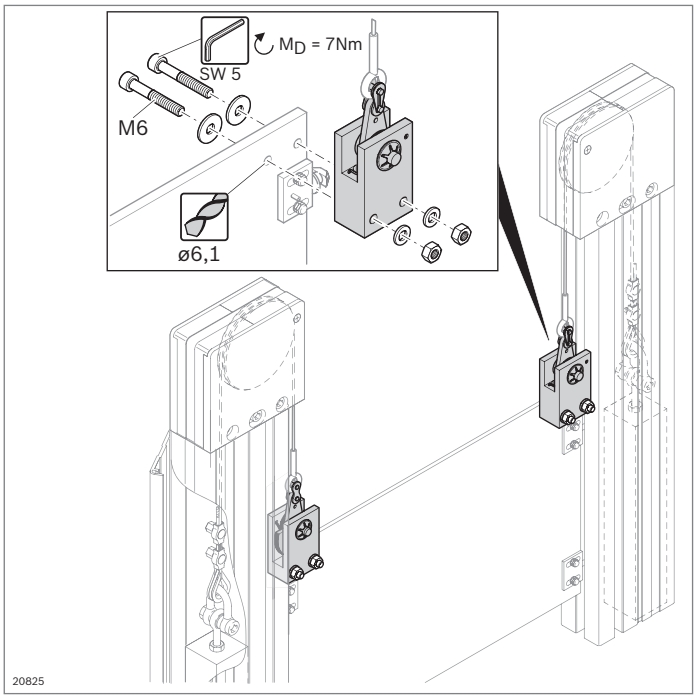
Deflection pulley counterbalance	No.	FS
	3 842 518 797	FS1, FS2

Material: Housing: PA, black
Fastening material: steel, galvanized

Scope of delivery: Incl. fastening material (FS)







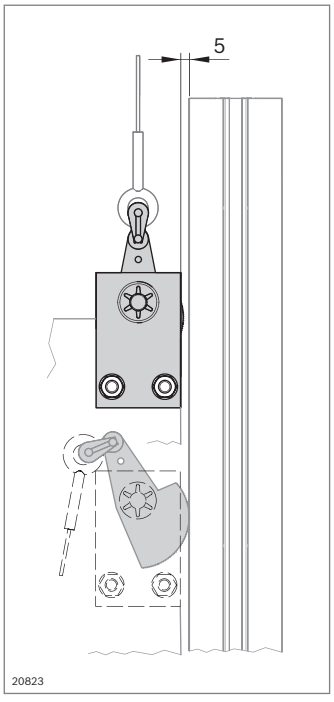
Safety catch

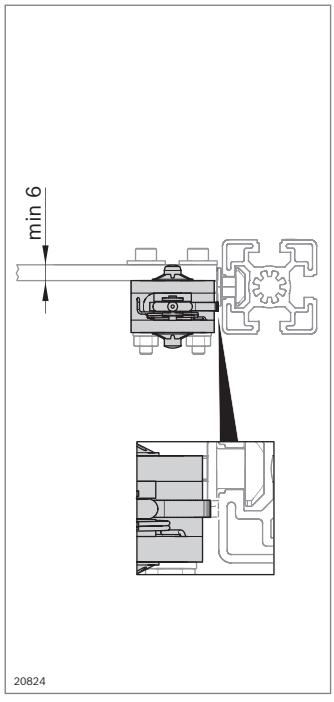
10

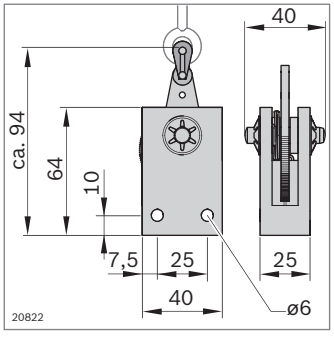
- For the construction of a redundant fall arrestor for lifting doors in accordance with the requirements of Machinery Directive 2006/42/EC
- The safety catch is opened by the weight of the lifting doors during normal operation
- If the control cable breaks, the eccentrically situated turntable that is pre-tensioned in the strut profile of the frame construction using springs becomes wedged and the guide element of the lifting doors must take over the function of a counterweight
  Recommended: sliders (p. 12-3)
- Suitable for mounting to surface elements at least 6 mm thick or to profile frames
- Installation in pairs recommended
- Safety catches and sliders should be mounted as close to each other as possible

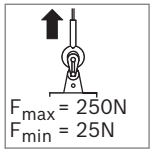
Required accessories:

- Slider as a lifting door guide element (p. 12-3)
- Fastening material for attaching the safety catch to the lifting door

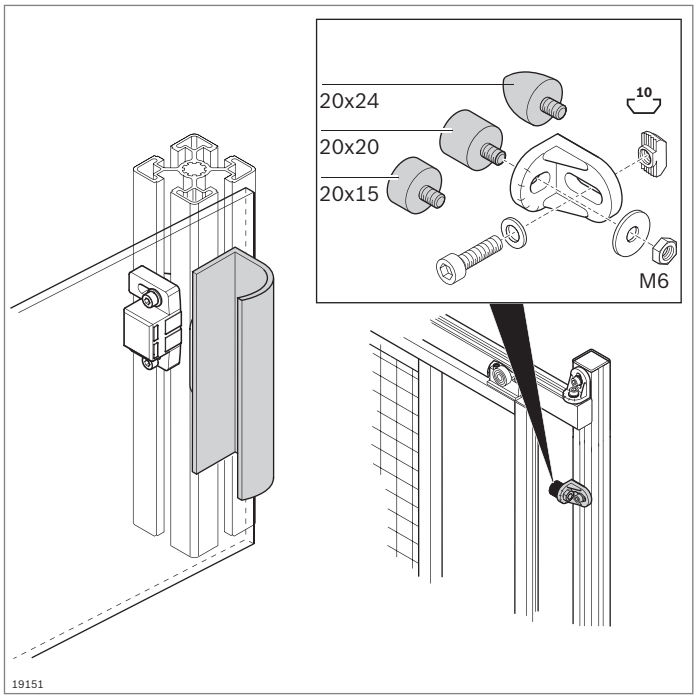








Safety catch		No.
		3 842 546 519
Material:	Housing: aluminum Turntable: steel, stainless Master link: steel, galvanized Spacer disk: POM	
Scope of delivery:	Incl. master link to secure the control cable	
Condition on delivery:	Assembled	



Bumper
Handle bar

Bumper

- For softening impact and deadening noise on doors, flaps, and covers

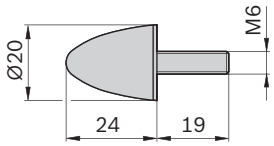
Accessories:
Nut, T-nut M6 (p. 3-4)

Handle bar

- For applications such as covers, drawers, or doors
- Finishing: drill for fixing

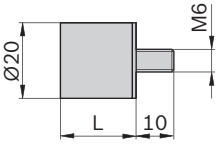
Required accessories:
Fastening material

20x24

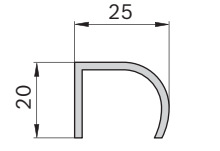


Bumper			No.
20x24		10	**3 842 510 165**
Material:	Rubber; hardness: 55° Shore A		

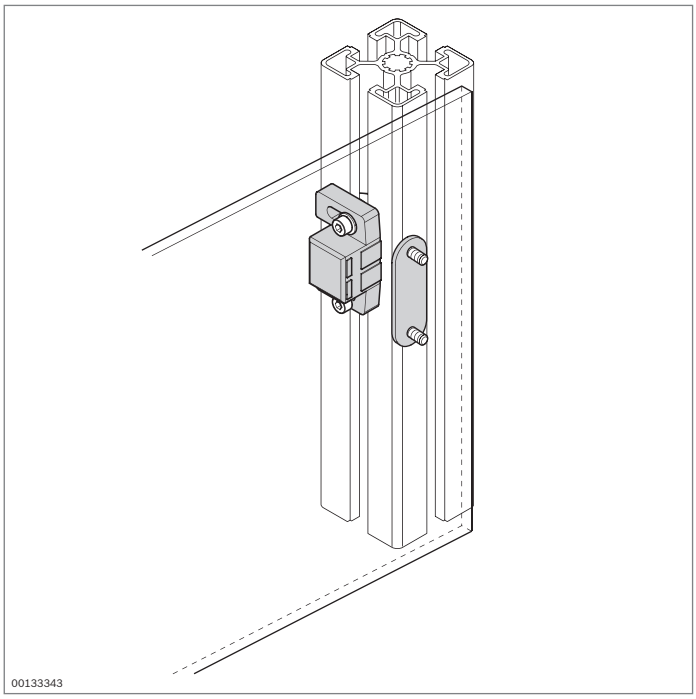
20x15, 20x20



Bumper	L (mm)		No.
20x15	15	10	**3 842 510 464**
20x20	20	10	**3 842 510 462**
Material:	Rubber; hardness: 55° Shore A		



Handle bar	L (mm)		No.
	50...3000	1	**3 842 990 111/L**
	3000	10	**3 842 500 287**
Material:	Aluminum, anodized		

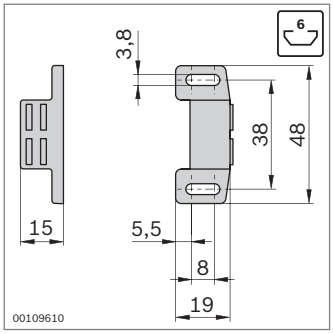


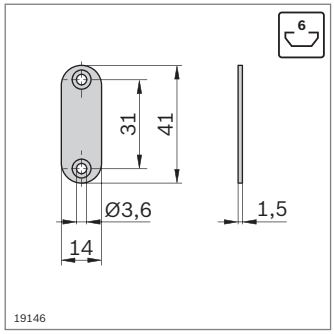
Magnet catch



- The magnet catch prevents doors and flaps from banging or being opened unintentionally
- Elongated holes to compensate for different surface element thicknesses

Accessories:
Cylinder screw ISO 4762, washer, T-nut (p. 3-4)

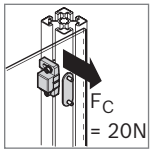


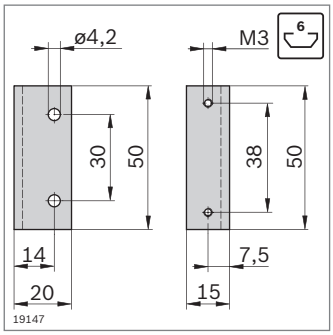


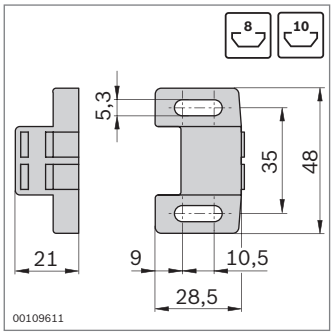
Magnet catch	Slot	No.	FS
	6	**3 842 518 740**	2xFS1

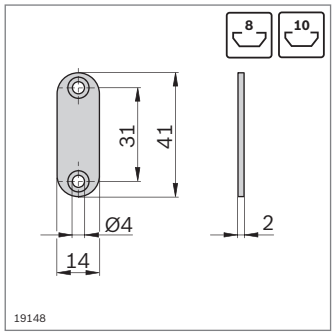
Material:	PP, white/steel, galvanized
Scope of delivery:	Incl. counterpiece, bracket, fastening material (FS)

FS1
ISO 4762 M3x8
DIN 125 A3,2



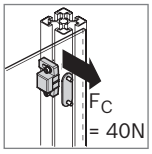


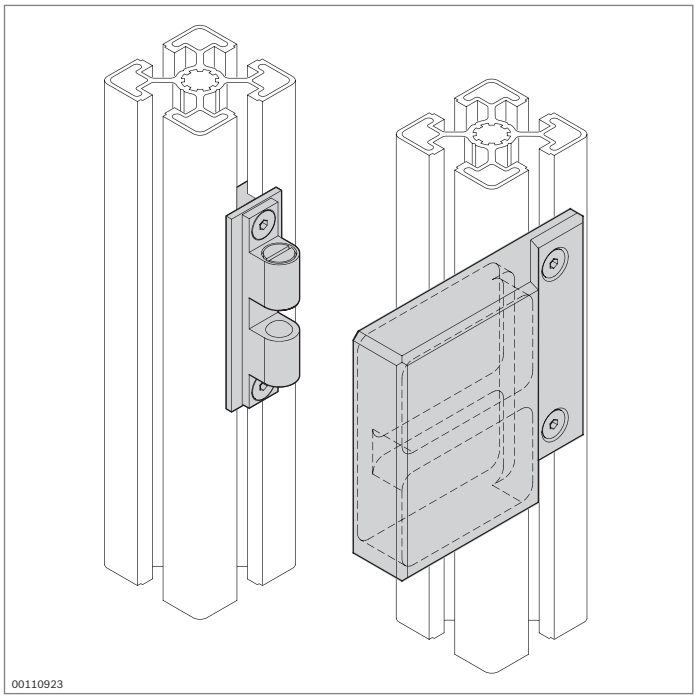




Magnet catch	Slot	No.
	8, 10	**3 842 516 165**

Material:	PA, black Steel, galvanized
Scope of delivery:	Incl. counterpiece

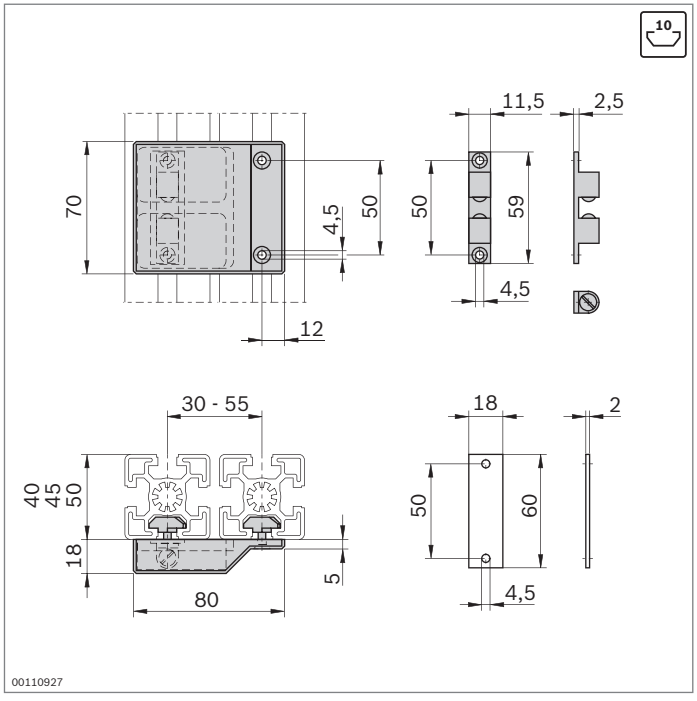




Double ball stop latch

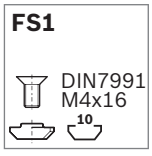


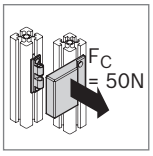
- For stopping doors made of profile frames and for bridging door gaps
- Matches profiles with modular dimensions 40 mm, 45 mm, and 50 mm
- Closing also possible with varying profile spacing

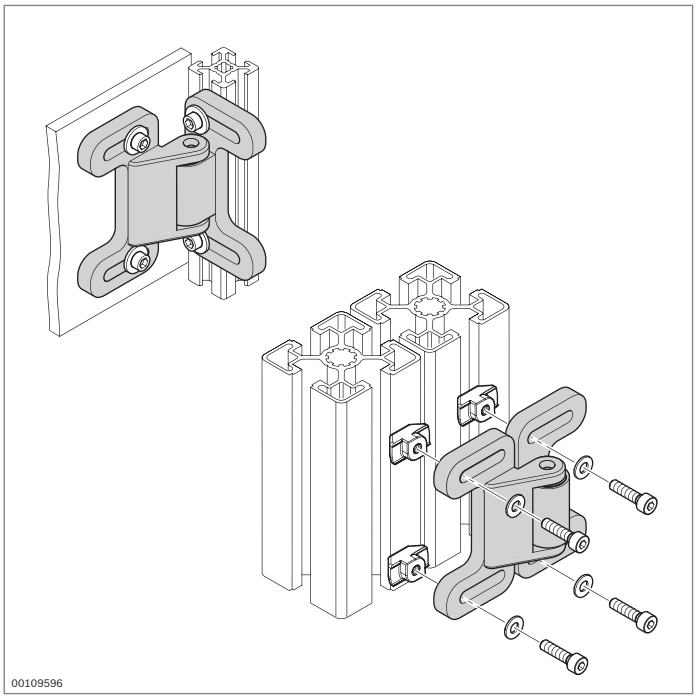


Double ball stop latch	Slot	No.	FS
	10	**3 842 530 241**	4xFS1

Material: Aluminum, black anodized
Scope of delivery: Incl. fastening material (FS)





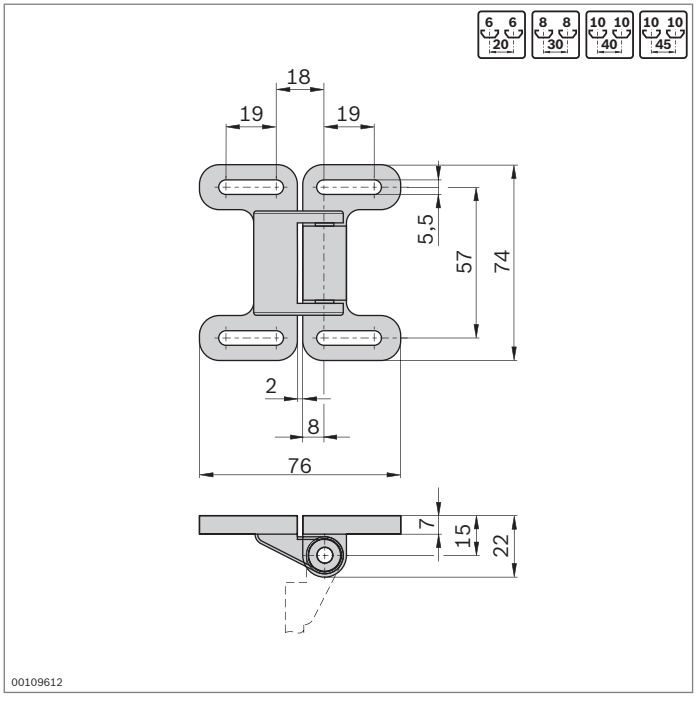


Ball catch



- Ball catch for doors and flaps
- For sliding and swing doors
- For doors with or without frames
- Elongated hole to adjust for varying distances
- Suitable for use under cleanroom conditions

Accessories:
Cylinder screw ISO 4762, washer,
T-nut (p. 3-4)



Ball catch	ESD		No.
		10	**3 842 524 986**

Material: PA, black, conductive

Fraunhofer IPA TESTED DEVICE
Bosch Kugelschnäpper 3842524986
Report No. BO 9903-158

Protective barriers and partition walls EcoSafe



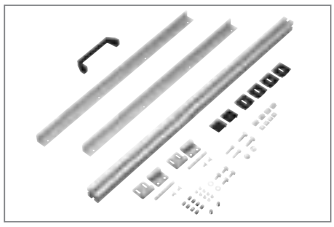
EcoSafe protective frame (p. 10-4)



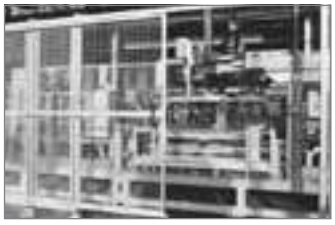
Protective grill profiles (p. 10-6)



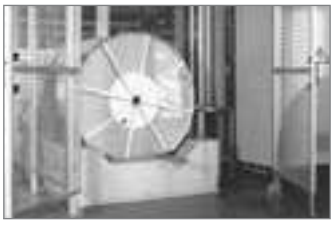
Suspension bracket, safety set (p. 10-8), Retaining bracket (p. 10-9)



EcoSafe system door kit (p. 10-10)



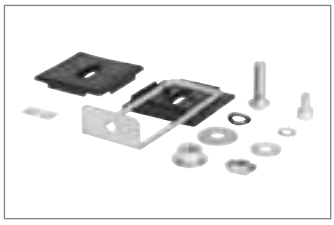
EcoSafe sliding door with/ without superstructure (p. 10-12)



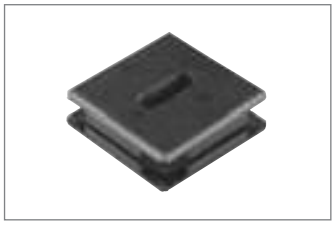
EcoSafe double door kit (p. 10-14)



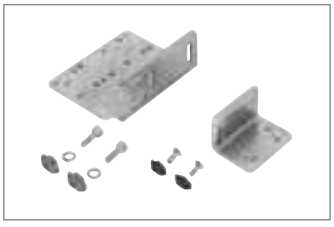
Lock mechanism for double door (p. 10-15)



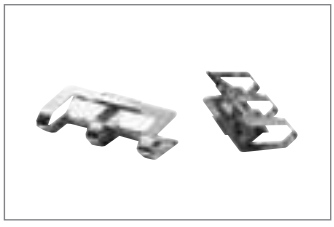
Earthing terminal (p. 10-16)



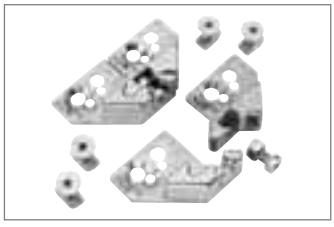
Clamping element (p. 10-17)



Attachment kit for safety switch (p. 10-18)



Spring clamp element (p. 10-19)

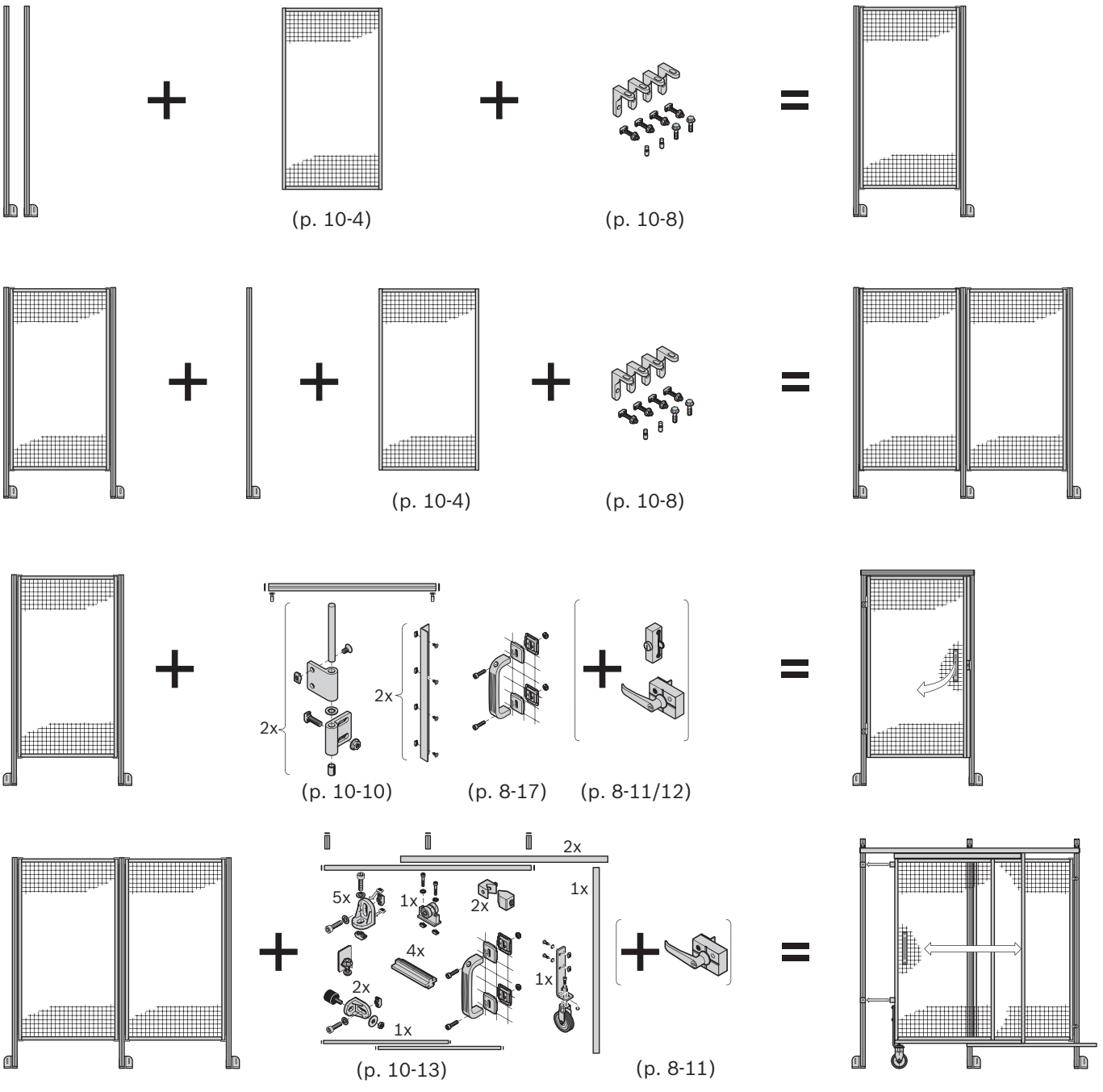


Suspension piece for frame (p. 10-20)

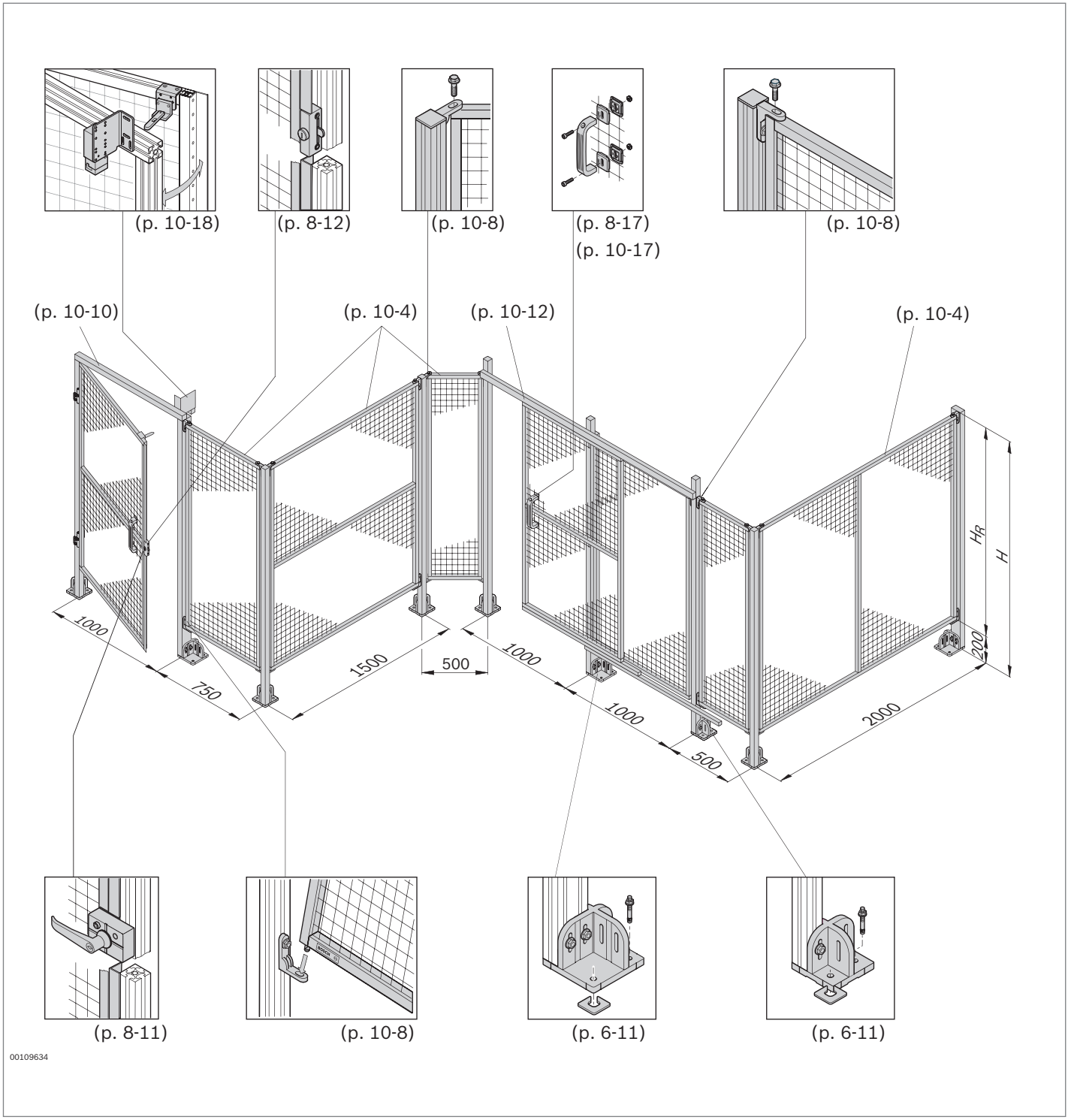
Eliminate safety risks in manufacturing and production with Rexroth protective barriers. The EcoSafe protective fence components can be used flexibly and permit compliance with current standards and guidelines.
Pre-assembled protective frames, door kits, and a sophisticated overall product range ensure fast planning, as well as economical and practical implementation.

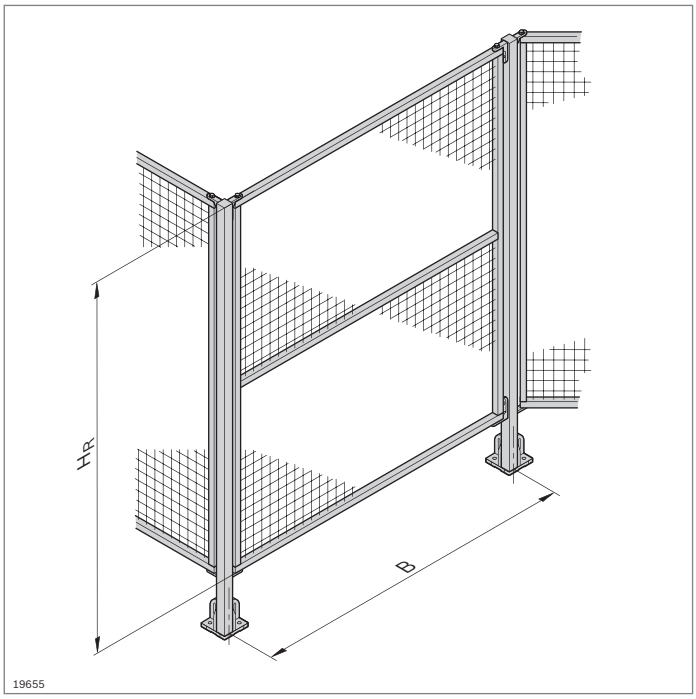
Individual protective installations such as enclosures and additional add-on components can be created using the tried and tested basic mechanical elements. These two systems are mutually compatible. In this way, Rexroth offers a comprehensive, complete system as a solution for all requirements.

EcoSafe components for protective fence construction



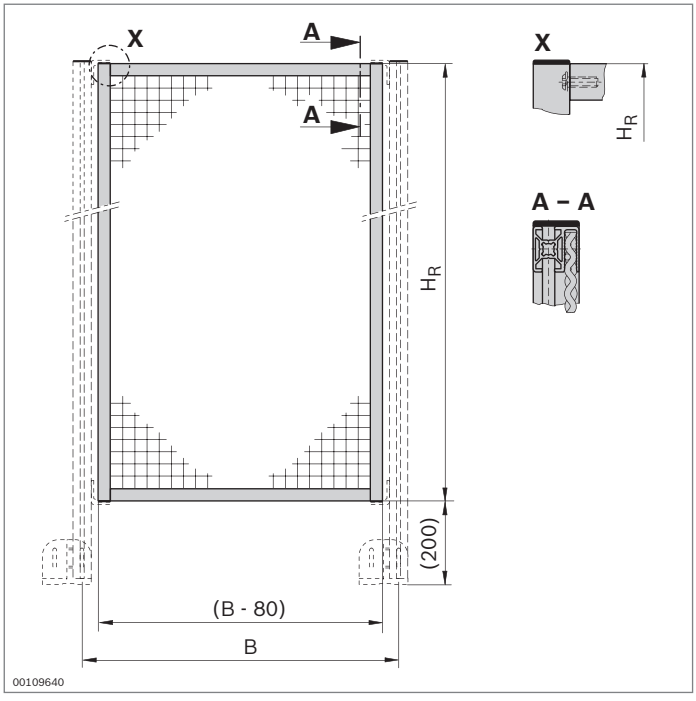
EcoSafe components for protective fence construction





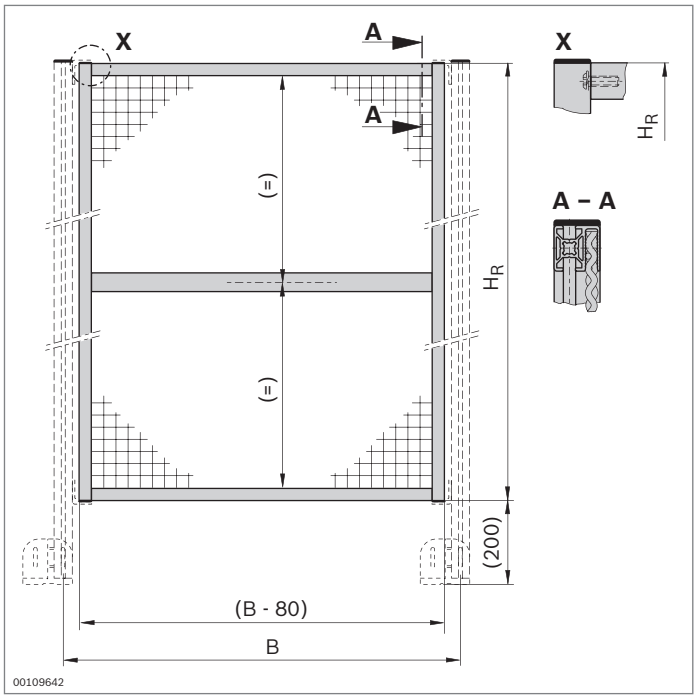
EcoSafe protective frame

- Protective frame made of protective grille profile 30x30 WG40 (p. 10-7) with woven wire grille 40x40x4
- Matching kits enable the construction of doors (system doors, sliding doors, double doors)
- Fully assembled on delivery
- Simple assembly on supports using suspension brackets. One-person operation
- Standard widths or individual dimensions
- Horizontally or vertically divided protective frames provide additional stability for large surfaces
- Color-coated woven wire grilles improve visual contrast in the protected area and facilitate recognition of access and exit routes



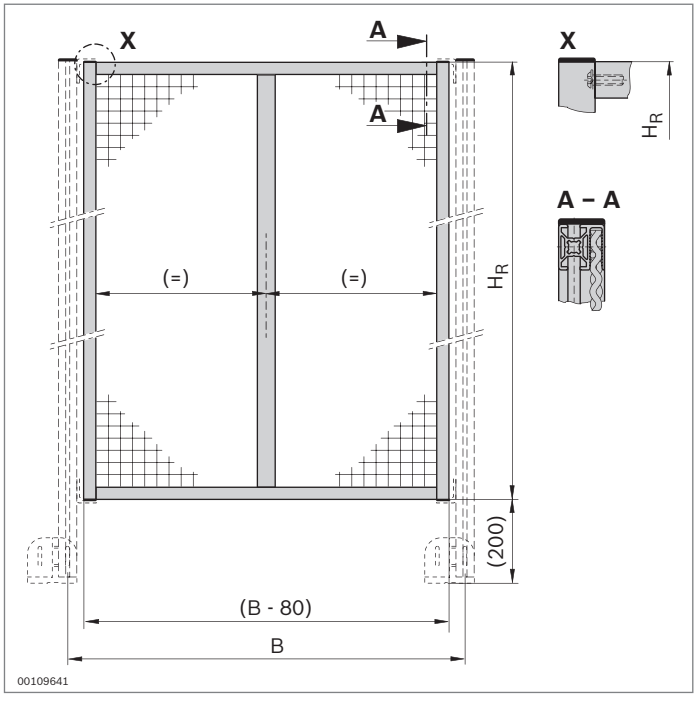
Protective frame	H_R (mm)	B (mm)	No.
	1800	500	**3 842 522 466**
		750	**3 842 522 467**
		1000	**3 842 522 468**
		1500	**3 842 522 469**
	250...2300	250...1500	**3 842 994 742/H_R, B**
Material:	Frame: aluminum, anodized Woven wire grille: steel, hot-galvanized		

Protective frame	H_R (mm)	B (mm)	No.
Woven wire grille, color-coated	250...2300	250...1500	**3 842 994 783/H_R, B, F**
Material:	Frame: aluminum, anodized Woven wire grille: steel, hot-galvanized, painted		
Woven wire grille color:	F = 1: black; RAL 9005 (e.g. for fence) F = 2: yellow; RAL 1023 (e.g. for doors) Special colors on request		



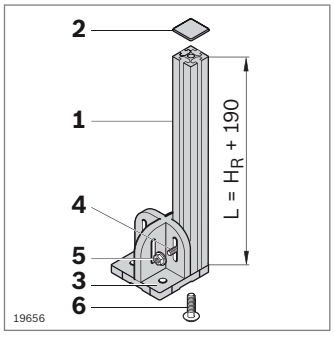
Protective frame, horizontal sections	**H_R** (mm)	**B** (mm)	**No.**
	1800	1000	**3 842 523 167**
	500...2300	250...2500	**3 842 994 745/H_R, B**
Material:	Frame: aluminum, anodized Woven wire grille: steel, hot-galvanized		

Protective frame, horizontal sections	**H_R** (mm)	**B** (mm)	**No.**
Woven wire grille, color-coated	500...2300	250...2500	**3 842 994 785/H_R, B, F**
Material:	Frame: aluminum, anodized Woven wire grille: steel, hot-galvanized, painted		
Woven wire grille color:	F = 1: black; RAL 9005 (e.g. for fence) F = 2: yellow; RAL 1023 (e.g. for doors) Special colors on request		



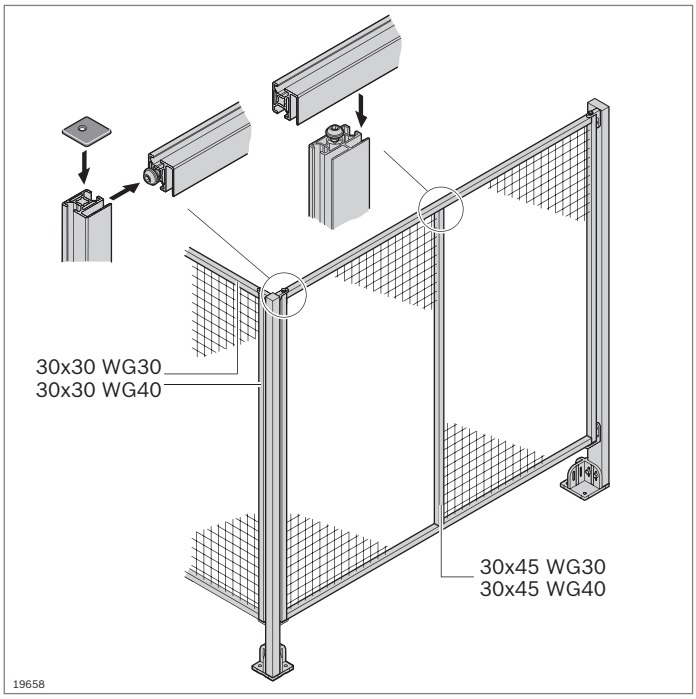
Protective fence, vertical sections	**H_R** (mm)	**B** (mm)	**No.**
	1800	2000	**3 842 525 158**
	250...2300	500...3000	**3 842 994 744/H_R, B**
Material:	Frame: aluminum, anodized Woven wire grille: steel, hot-galvanized		

Protective fence, vertical sections	**H_R** (mm)	**B** (mm)	**No.**
Woven wire grille, color-coated	250...2300	500...3000	**3 842 994 784/H_R, B, F**
Material:	Frame: aluminum, anodized Woven wire grille: steel, hot-galvanized, painted		
Woven wire grille color:	F = 1: black; RAL 9005 (e.g. for fence) F = 2: yellow; RAL 1023 (e.g. for doors) Special colors on request		



Individually construct the supports using MGE components

Components		**No.**
1	Profile 45x45L (p. 2-34)	**3 842 992 425/L**
2	Cap (p. 2-34)	**3 842 502 674**
3	Base plate 120x120 (p. 6-11)	**3 842 527 553**
4	T-bolt M8x30 (p. 3-6)	**3 842 528 721**
5	Flange nut M8 (p. 3-6)	**3 842 345 081**
6	Central bolt S12x30-T50 (p. 3-36)	**3 842 530 236**



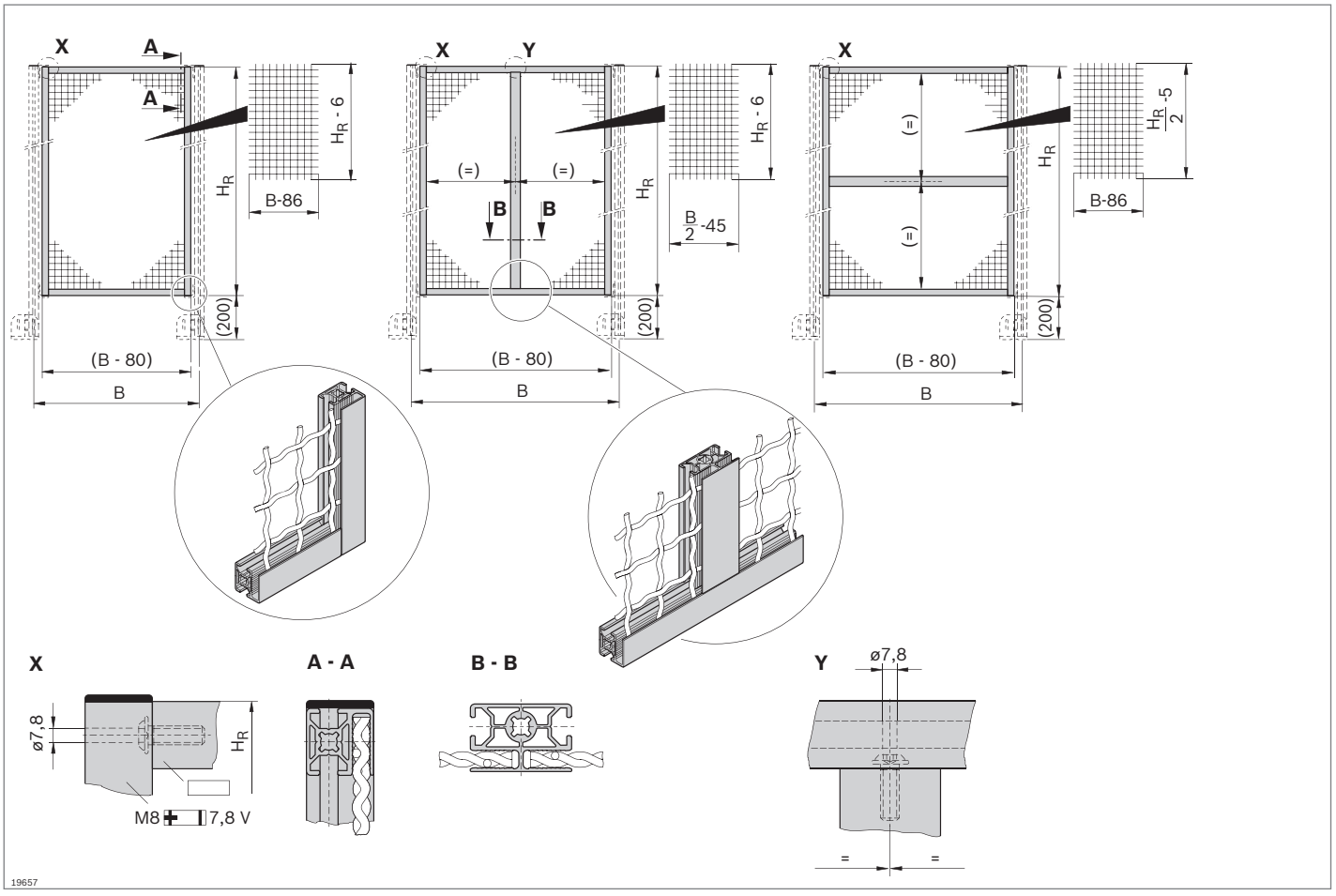
Protective grille profiles



- Economical solution for the construction of protective barriers with woven wire grilles WG30 and WG40
- Attachment of woven wire grilles: directly in the special profile slot
- Attachment of surface elements: in the special profile slot using spring clamping elements (accessories)
- The profiles are connected using a central bolt (profile finishing required)

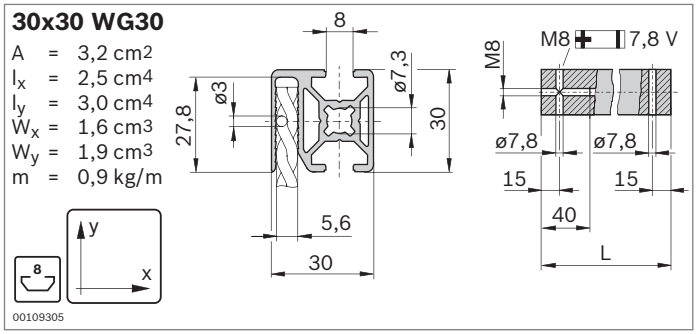
Required accessories:

- Central bolt (p. 3-36)
- Woven wire grille (p. 10-4)
- Spring clamping element (p. 10-19)



30x30 WG30

A = 3,2 cm²
I_x = 2,5 cm⁴
I_y = 3,0 cm⁴
W_x = 1,6 cm³
W_y = 1,9 cm³
m = 0,9 kg/m

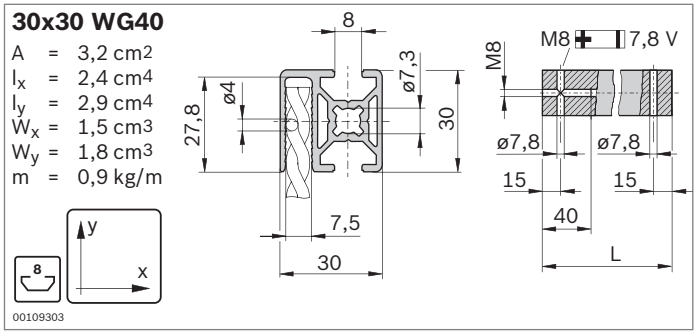


Protective grille profile 30x30 WG30			L (mm)	No.
	1 pc		50...5600	**3 842 992 970/L**
	1 pc	M8 7,8V	50...5600	**3 842 992 977/L**
	20 pcs		5600	**3 842 522 462**

Material: Aluminum, anodized

30x30 WG40

A = 3,2 cm²
I_x = 2,4 cm⁴
I_y = 2,9 cm⁴
W_x = 1,5 cm³
W_y = 1,8 cm³
m = 0,9 kg/m

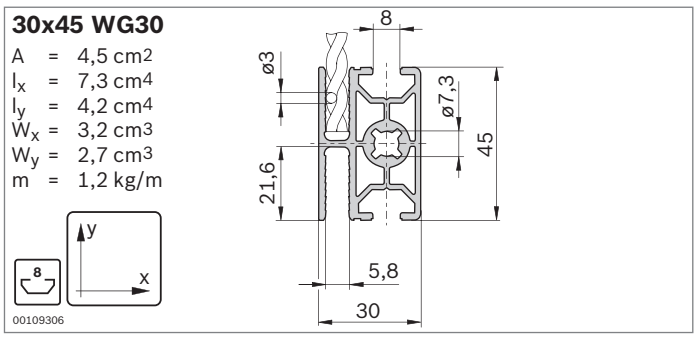


Protective grille profile 30x30 WG40			L (mm)	No.
	1 pc		50...5600	**3 842 992 972/L**
	1 pc	M8 7,8V	50...5600	**3 842 992 978/L**
	20 pcs		5600	**3 842 522 464**

Material: Aluminum, anodized

30x45 WG30

A = 4,5 cm²
I_x = 7,3 cm⁴
I_y = 4,2 cm⁴
W_x = 3,2 cm³
W_y = 2,7 cm³
m = 1,2 kg/m

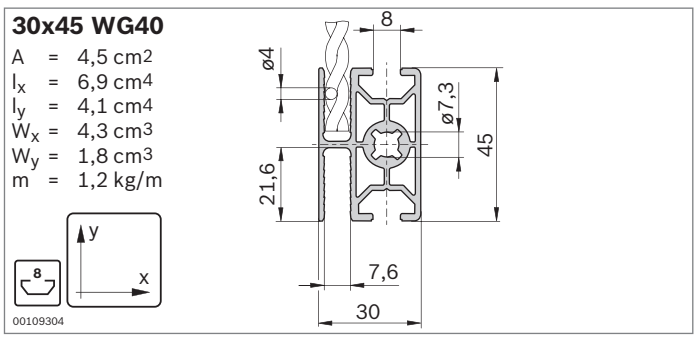


Protective grille profile 30x45 WG30			L (mm)	No.
	1 pc		50...5600	**3 842 992 971/L**
	20 pcs		5600	**3 842 522 463**

Material: Aluminum, anodized

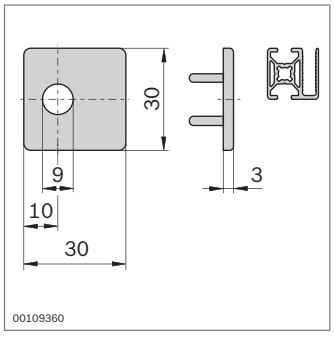
30x45 WG40

A = 4,5 cm²
I_x = 6,9 cm⁴
I_y = 4,1 cm⁴
W_x = 4,3 cm³
W_y = 1,8 cm³
m = 1,2 kg/m



Protective grille profile 30x45 WG40			L (mm)	No.
	1 pc		50...5600	**3 842 992 973/L**
	20 pcs		5600	**3 842 522 465**

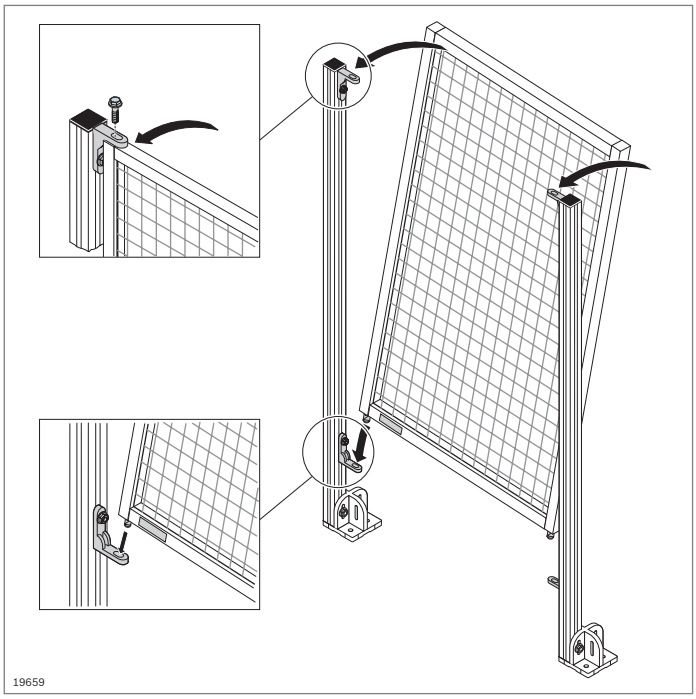
Material: Aluminum, anodized



▶ Cap for a more attractive appearance and to prevent injuries

30x30 cap		No.
	100	**3 842 522 345**

Material: PA, black



Suspension bracket
Safety set – Safety Strip

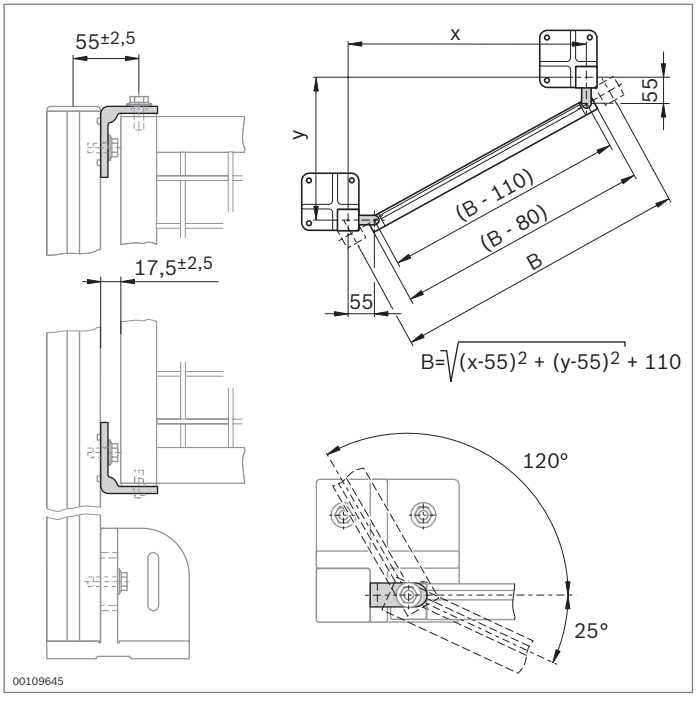
10

Suspension bracket

- For assembling the EcoSafe protective frame on the supports at various angles
- Suspension bracket with centering lugs as anti-torsion element

Safety set Safety Strip

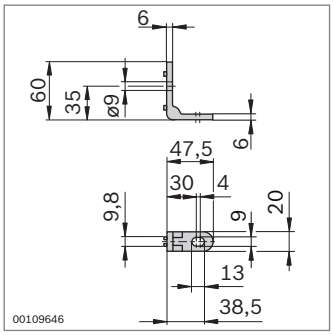
- Safe and inexpensive
- Easy assembly; retrofit possible
- Patented
- Complies with the Machinery Directive 2006/42/EC requirement: the screw remains connected to the suspension bracket after loosening

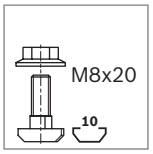


Suspension bracket	No.	FS
Set	**3 842 522 481**	4xFS1, 2xFS2, 2xFS3

Material: Diecast zinc
Fastening material: steel, galvanized

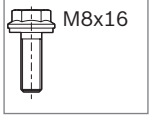
Scope of delivery: In a set with four brackets, incl. fastening material (FS)

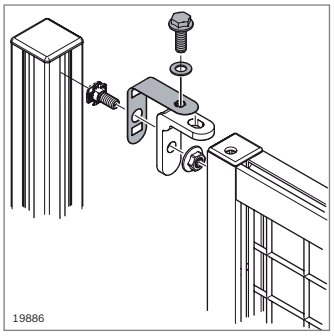


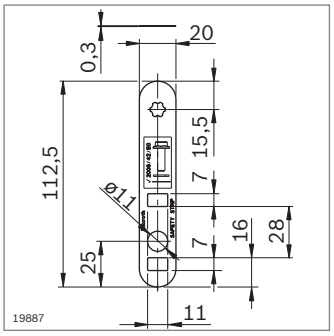




FS3





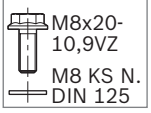


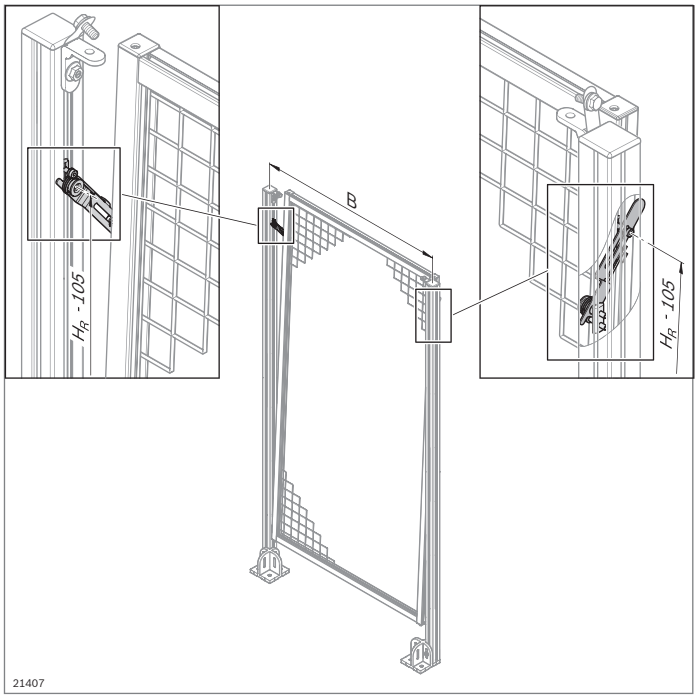
Safety set Safety Strip		No.	FS
	10	**3 842 542 146**	FS1

Material: PP granulate

Scope of delivery: Incl. fastening material (FS)

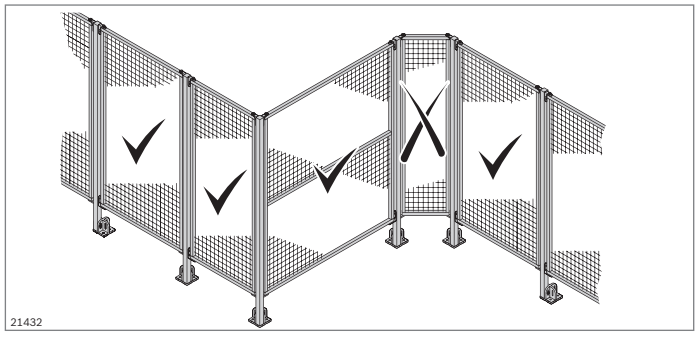
FS1





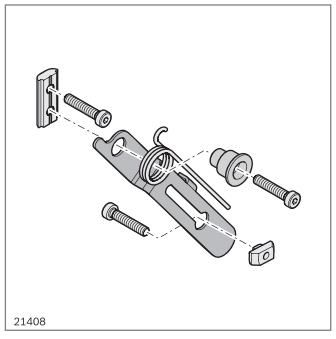
Retaining bracket

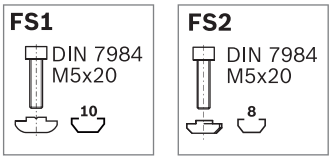
- For compliance with the requirements in the Machinery Directive 2006/42/EC for detaching protective frames
  - The leg spring tilts out the protective frame so that it is clearly detached
  - The protective frame cannot fall out
- Easy removal of EcoSafe protective frames
- Retrofitting possible
- Installation on both sides recommended for EcoSafe protective frames with width B >1500 mm



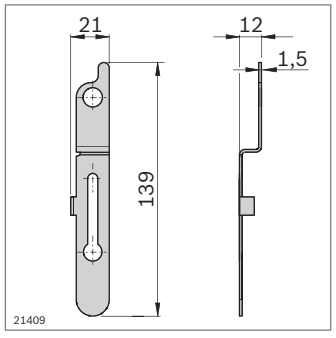
Possible installation situation:

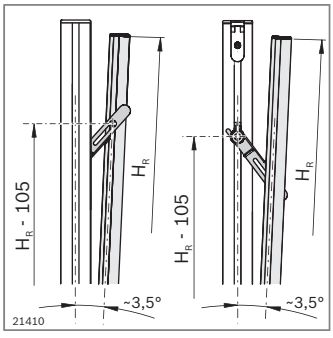
- Not suitable for installing the protective frame across corners

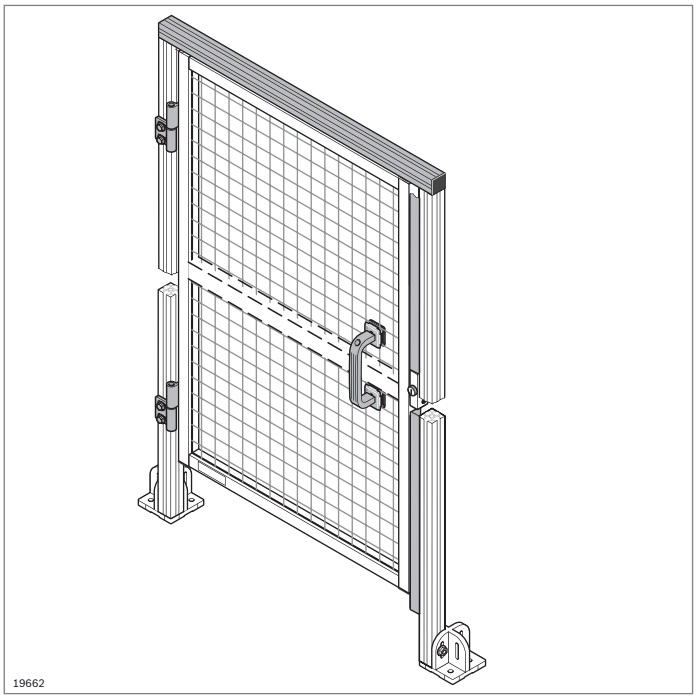




Retaining bracket		No.	FS
		3 842 546 560	**FS1, FS2**
Material:	Holding plate: stainless steel Spacer: aluminum Leg spring: spring steel		
Scope of delivery:	Holding plate, spacer, leg spring, fastening material (FS)		





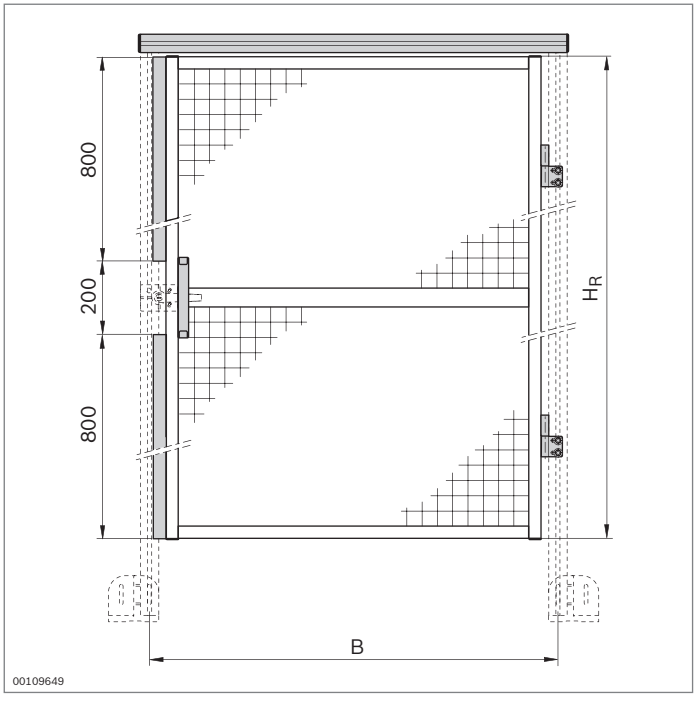


EcoSafe system door kit

- For constructing an EcoSafe system door in the modular dimension system
- Use of finished protective frame as a door
- For doors that open to the left or right
- Required components:
  - Assembly kit for system door
  - Protective frame (p. 10-4)

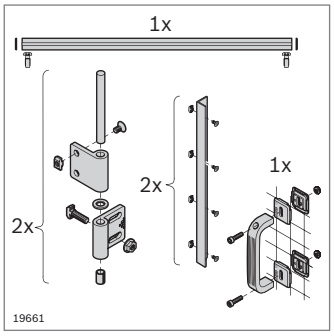
Optional accessories:

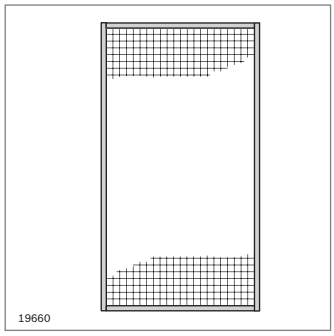
- Lock (p. 8-12)
- Attachment kit for safety switch (p. 10-18)



Assembly kit for system door	H_R (mm)	B (mm)	No.
	1800	1000	**3 842 523 166**
	1800	750	**3 842 523 165**

Scope of delivery: 2x hinge, 2x stop rail, profile as door lintel, strap-shaped handle, incl. fastening material



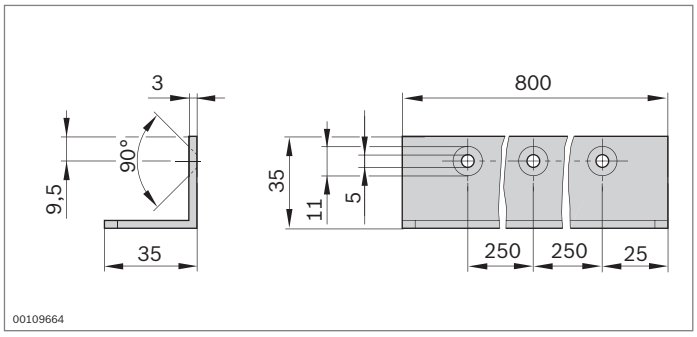


Selection of suitable protective frames

Protective frame	H_R (mm)	B (mm)	No.
Protective frame, horizontal sections	1800	1000	**3 842 523 167**
Protective frame	1800	750	**3 842 522 467**

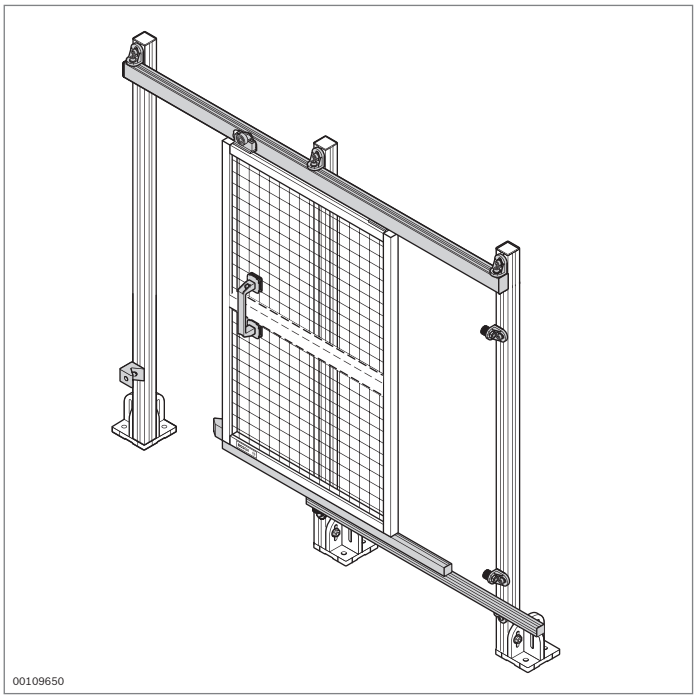
Material: Aluminum, anodized; woven wire grille
Fastening material: steel, galvanized

Scope of delivery: Fully assembled



▶ System door stop rail for self-assembly

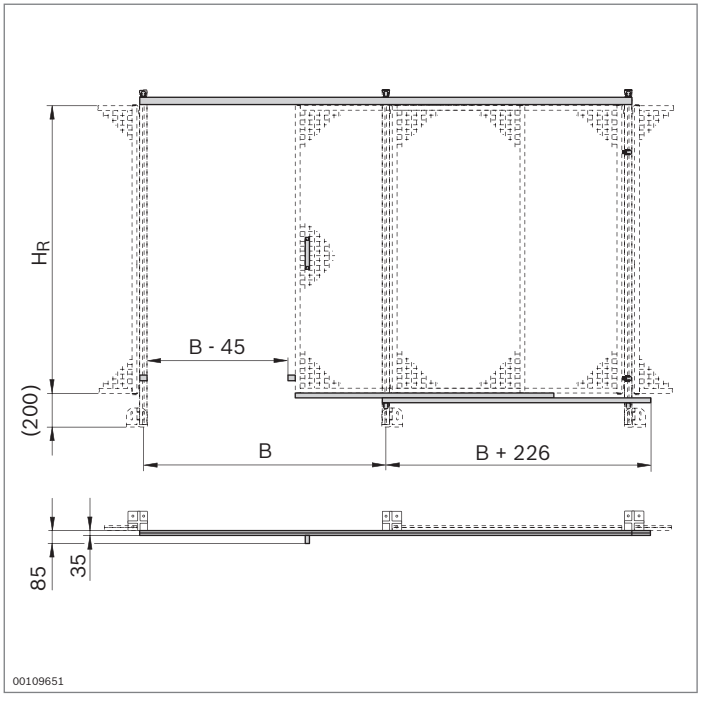
Stop rail	No.
	3 842 523 170



EcoSafe assembly kit for sliding door with superstructure

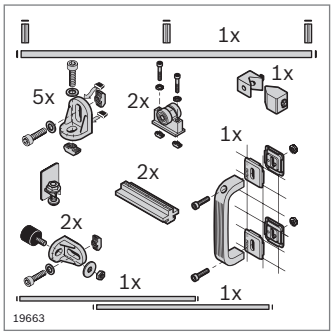
- Assembly kit for constructing an EcoSafe sliding door with superstructure in a modular dimension system
- Use of finished protective frame as a door
- Easy subsequent installation in a protective fence
- Rollers with ball bearings for smooth running
- For doors that open to the left or right
- Required components:
  - Sliding door kit with superstructure
  - Protective frame (p. 10-4)

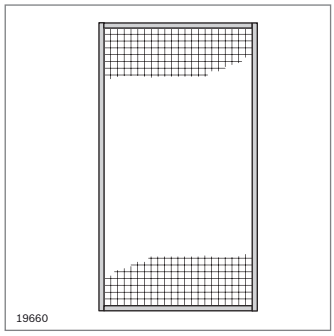
Optional accessories:
Lock (p. 8-12)



Sliding door kit with superstructure	H_R (mm)	B (mm)	No.
	1800	1000	**3 842 524 163**
	1800	1500	**3 842 524 164**

Scope of delivery: 2x bumper, 2x slider, 2x trolley, profile for door superstructure, 5x mounting bracket, stop kit, 2x profile for sliding door



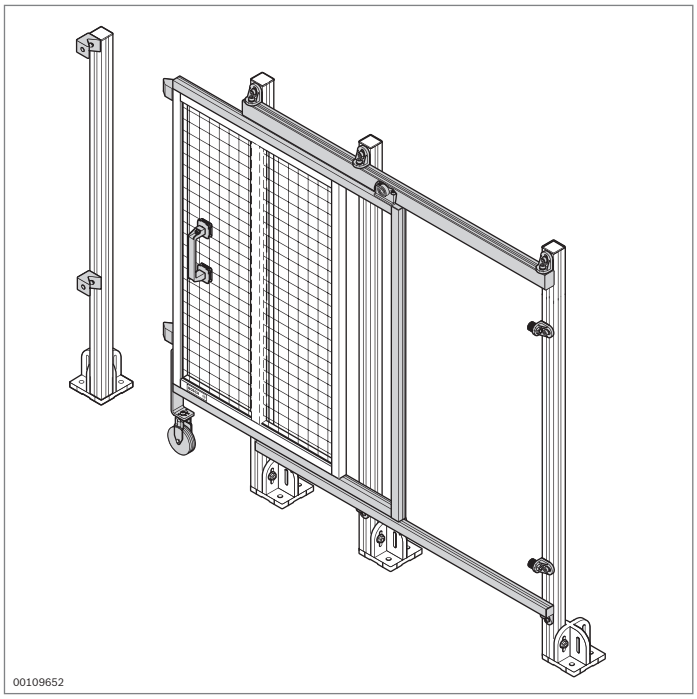


Selection of suitable protective frames

Protective frame	H_R (mm)	B (mm)	No.
	1800	1000	**3 842 522 468**
	1800	1500	**3 842 522 469**

Material: Aluminum, anodized; woven wire grille
Fastening material: steel, galvanized

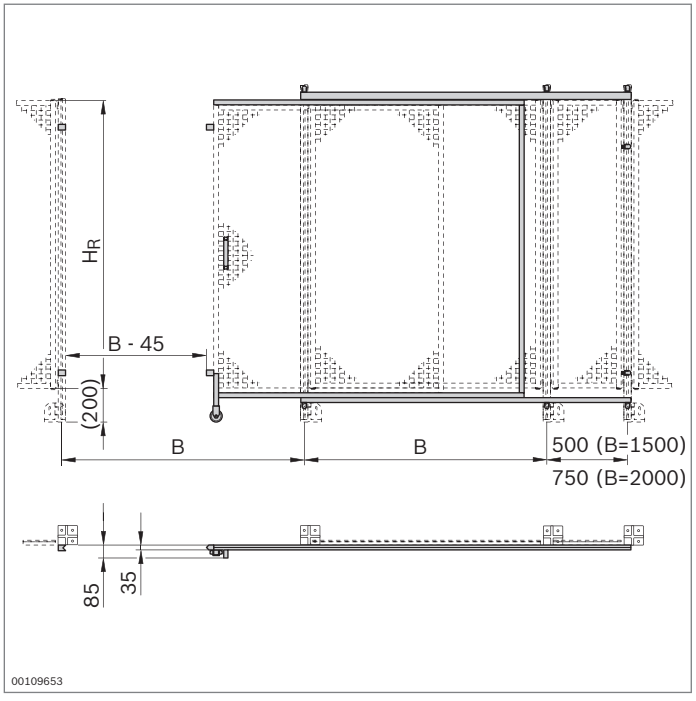
Scope of delivery: Fully assembled



EcoSafe sliding door without superstructure

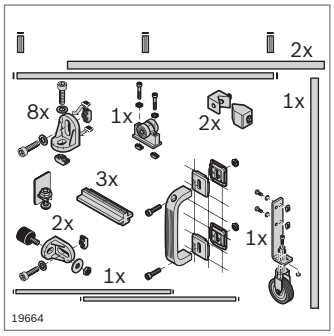
- Assembly kit for constructing an EcoSafe sliding door without superstructure in a modular dimension system
- Use of finished protective frame as a door
- Easy subsequent installation in a protective fence
- Rollers with ball bearings for smooth running
- For doors that open to the left or right
- Required components:
  - Assembly kit for sliding door without superstructure
  - Protective frame (p. 10-4)

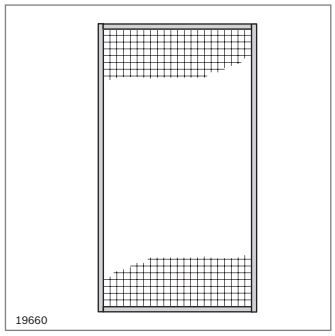
Optional accessories:
Lock (p. 8-12)



Sliding door kit without superstructure	H_R (mm)	B (mm)	No.
	1800	1500	**3 842 524 165**
	1800	2000	**3 842 524 166**

Scope of delivery: 2x bumper, 3x slider, trolley, profile for door superstructure, 8x mounting bracket, 2x stop kit, 2x profile for sliding door, incl. fastening material



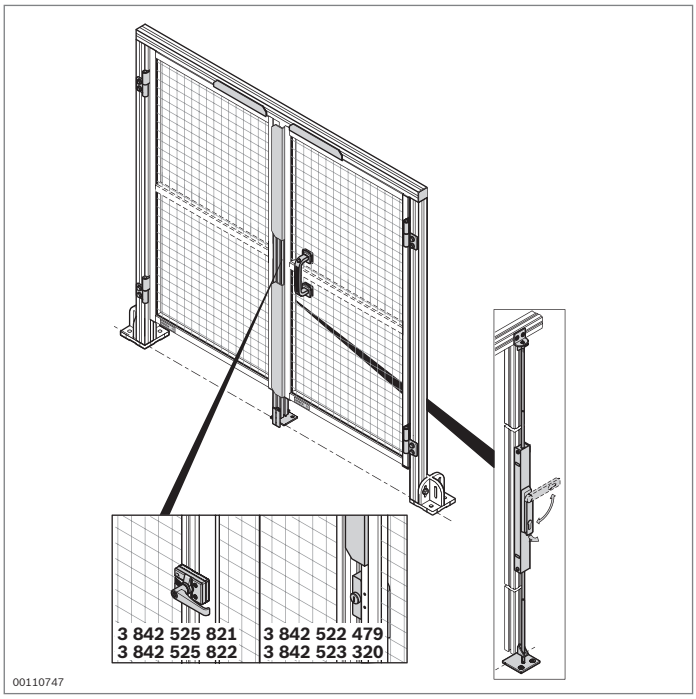


Selection of suitable protective frames

Protective frame	H_R (mm)	B (mm)	No.
Protective frame	1800	1500	**3 842 522 469**
Protective fence, vertical sections	1800	2000	**3 842 525 158**

Material: Aluminum, anodized; woven wire grille
Fastening material: steel, galvanized

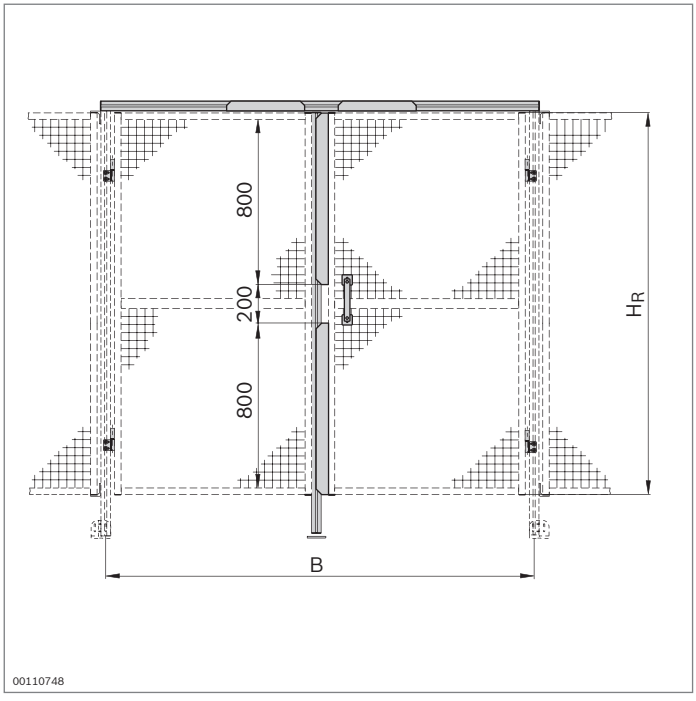
Scope of delivery: Fully assembled



EcoSafe double door kit

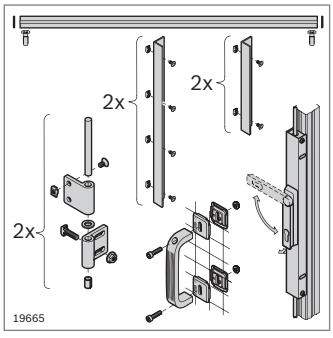
- Assembly set for the easy mounting of an EcoSafe double door in a modular dimension system
- Use of finished protective frame as a door
- Easy subsequent installation in a protective fence
- Optional installation of a commercially available closing cylinder in the lock mechanism for the double door
- Required components:
  - Double door kit
  - Two protective frames (p. 10-4)

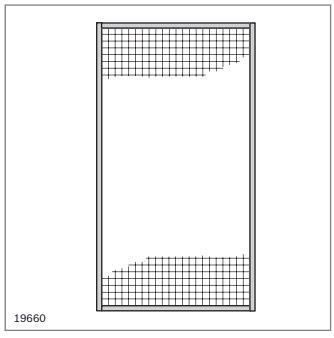
Optional accessories:
- Lock (p. 8-12)
- Attachment kit for safety switch (p. 10-18)
- Commercially available closing cylinder (dimensions, p. 8-14)



Double door kit	H_R (mm)	B (mm)	No.
	1800	1500	**3 842 525 781**
	1800	2000	**3 842 525 782**

Scope of delivery: Lock mechanism for double door, profile for door superstructure, profile for door stop, 4x hinge, base plate, strap-shaped handle, 2x stop bracket for door bolts, 2x stop bracket for door stop, fastening material



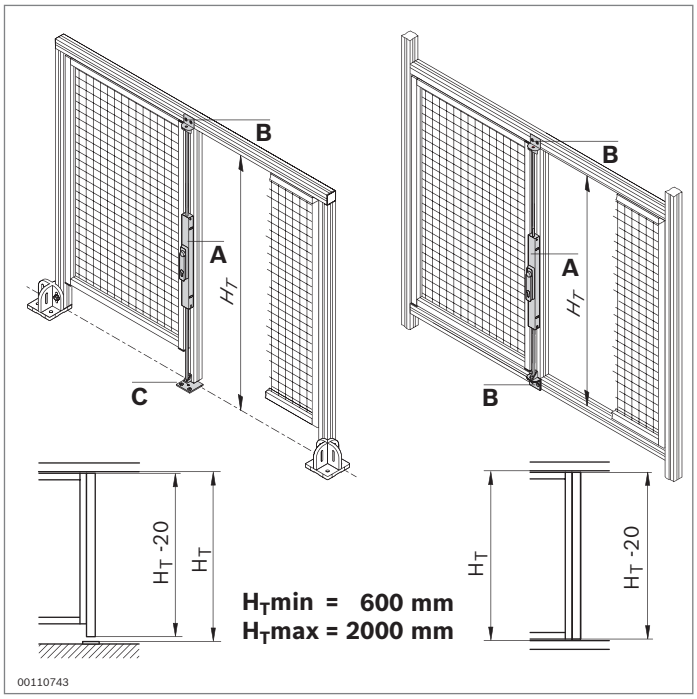


Selection of suitable protective frames

Protective frame	H_R (mm)	B (mm)	No.
Protective frame	1800	750	**3 842 522 467**
Protective frame, horizontal sections	1800	1000	**3 842 523 167**

Material: Aluminum, anodized; woven wire grille
Fastening material: steel, galvanized

Condition on delivery: Fully assembled

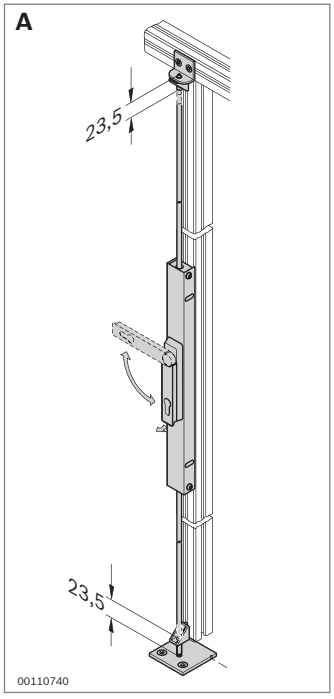


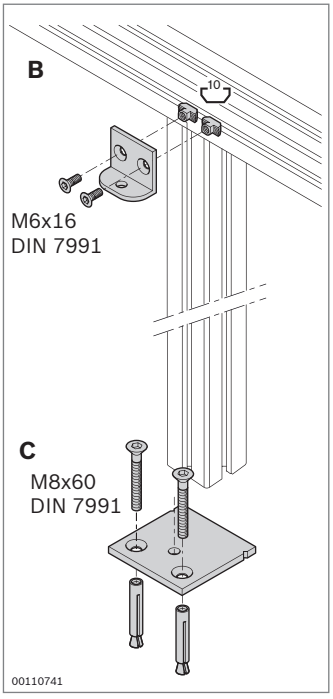
Lock mechanism for double door

10

- Components for constructing a lock mechanism for double doors
- Optional installation of a commercially available closing cylinder in the lock mechanism for the double door
- Locking kit (**A**) for individually designed double doors with $H_T$max = 2000 mm
- Lock bracket (**B**) for mounting the lock bolt bar
- Base plate (**C**) for the lock bolt bar; fastening to the floor with supplied dowels. For traversable doors

Optional accessories:
Commercially available closing cylinder
(dimensions, p. 8-14)





Lock kit	No.	FS
A	**3 842 525 780**	2xFS1, 2xFS2, 4xFS3

Material:	Housing: aluminum Door handle: PA, black Lock bolt: steel, galvanized Lock bolt guide bracket: diecast zinc
Scope of delivery:	Lock mechanism for double door, bracket, base plate, incl. fastening material (FS)

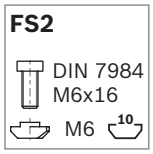
Lock bracket	No.	FS
B	**3 842 526 786**	2xFS4

Material:	Aluminum, anodized
Scope of delivery:	Incl. fastening material (FS)

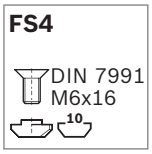
Base plate	No.	FS
C	**3 842 526 787**	2xFS5

Material:	Base plate: steel, stainless Floor dowel: steel, galvanized
Scope of delivery:	Incl. fastening material (FS)

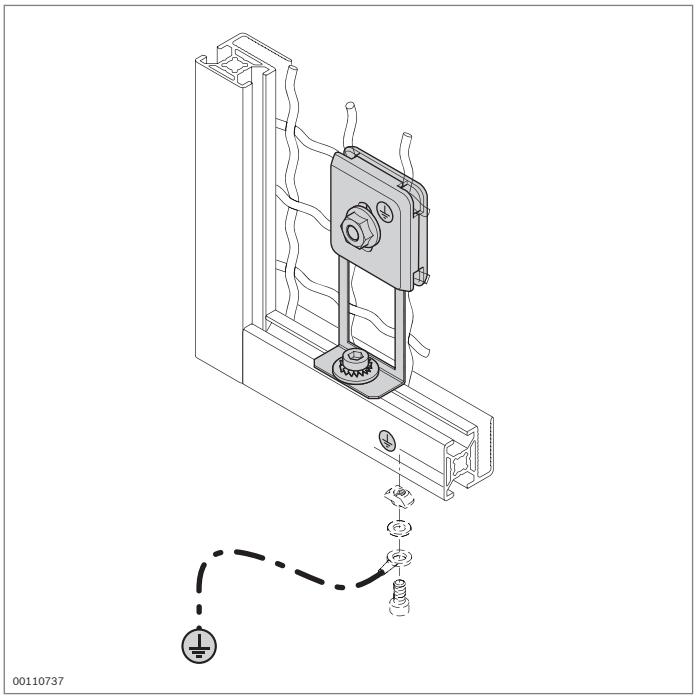








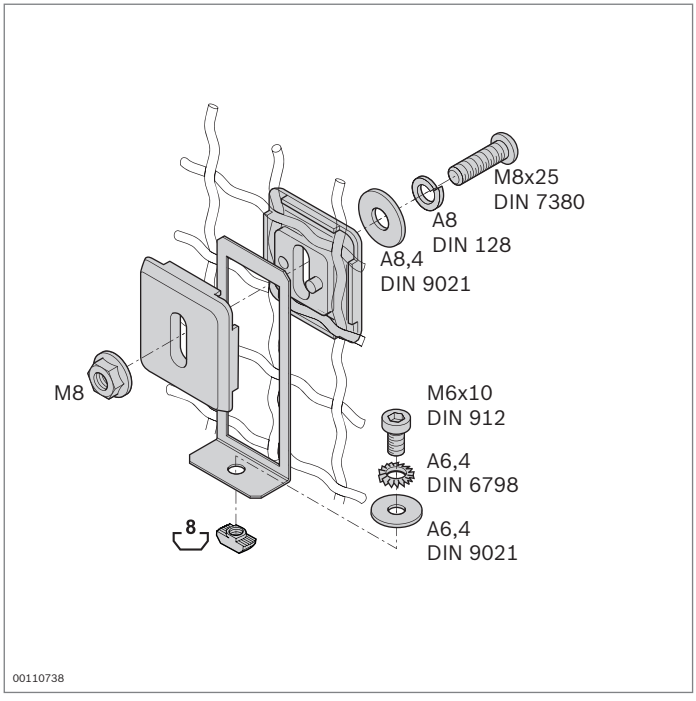




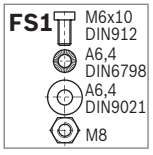
Earthing terminal

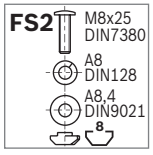


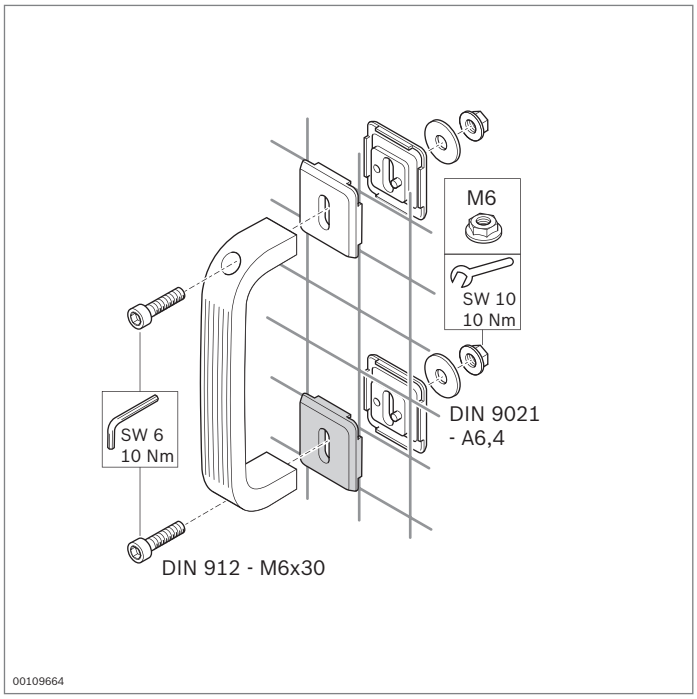
- For establishing an electrically conductive connection between the woven wire grille and protective framer
- Connect the earthed conductor via the ESD-conductive connection elements (e.g. T-nut)
- Guarantees safe conduction of short-circuit currents up to a rated current of 63 A



Earthing terminal		No.	FS
		3 842 525 833	FS1, FS2
Material:	Earthing terminal: steel, stainless Clamping element: PA, black Fastening material: steel, galvanized		
Scope of delivery:	Incl. fastening material (FS)		



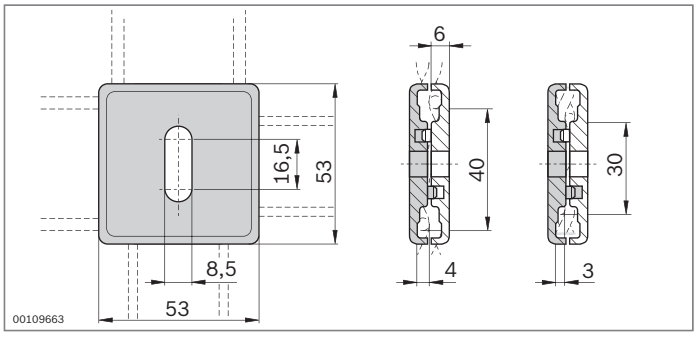




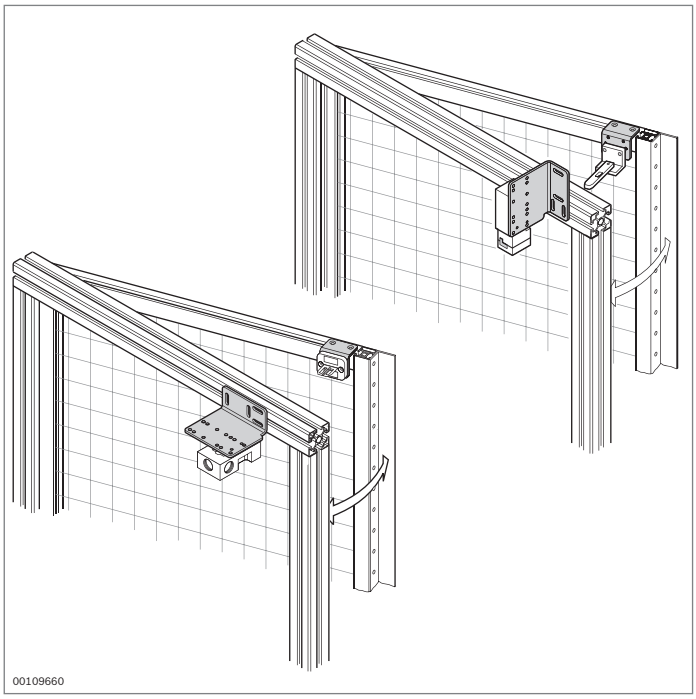
Clamping element

- For attaching handles, information boards, or warning signs to woven wire grilles 40x40x4 and 30x30x3
- Clamping via opposing pairs of clamping elements

Required accessories:
Fastening material; see drawing



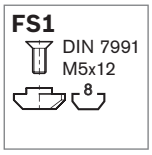
Clamping element			No.
		20	**3 842 523 308**
Material:	PA66, black		

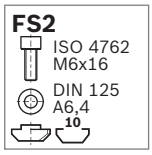


Attachment kit for safety switch



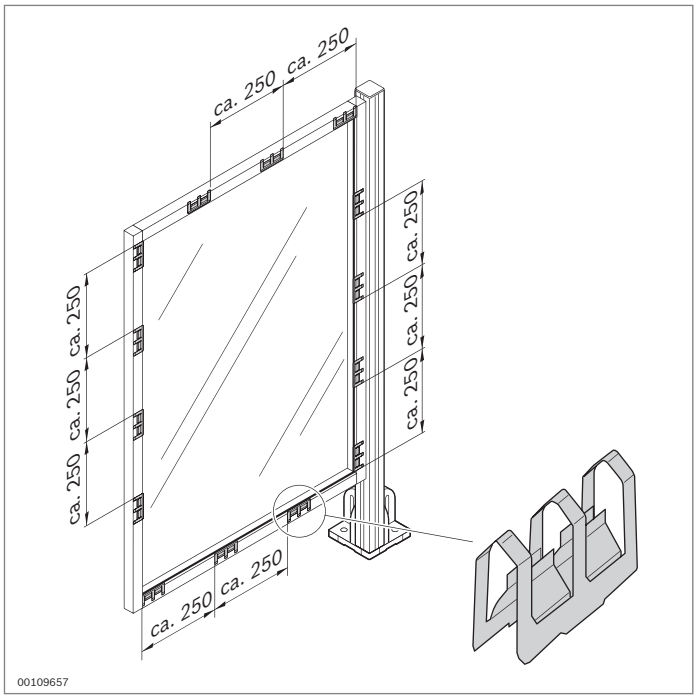
- For installing commercially available safety switches on EcoSafe system doors





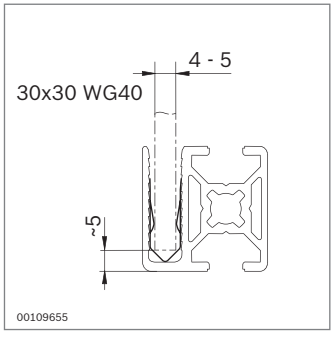
Attachment kit for safety switch		No.	FS
For safety switch	**For activator**		
Euchner NZ 1 VZ...	024298; 024299	**3 842 522 475**	2xFS1, 2xFS2
Euchner NZ 2 VZ...	024298; 024299		
Euchner NZ 1 VS...	024298; 024299		
Euchner NZ 2 VS...	024298; 024299		
Schmersal AZ15...	AZ15/16-B2-1747		
Schmersal AZ16...	AZ15/16-B2-1747		
Schneider Electric XCS - A...	XCS-Z03		
Schneider Electric XCS - C...	XCS-Z03		
Schneider Electric XCS - PA...	XCS-Z13		
Schneider Electric XCS - TE...	XCS-Z13		
Euchner TZ...	024298; 024299	**3 842 522 476**	2xFS1, 2xFS2
Schneider Electric XCS - LE/ LF...	XCS-Z03		
Schneider Electric XCS - TE...	XCS-Z13		
Schneider Electric XCS - PA...	XCS-Z13		
Schmersal AZM161...	AZM161-B1E	**3 842 522 477**	2xFS1, 2xFS2

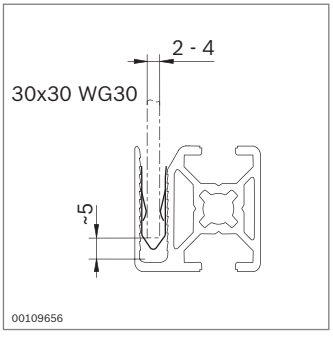
Material:	Steel, galvanized
Scope of delivery:	Incl. adapter plate, bracket, incl. fastening material (FS)

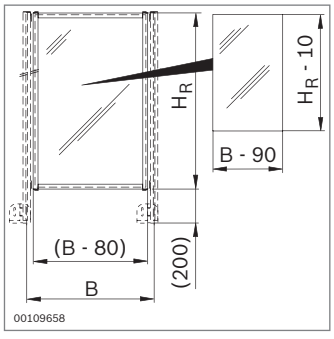


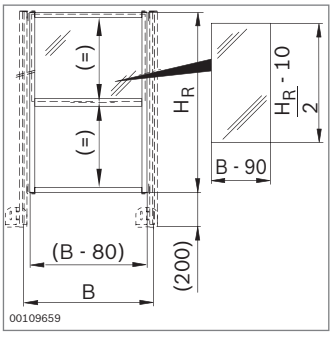
Spring clamping element

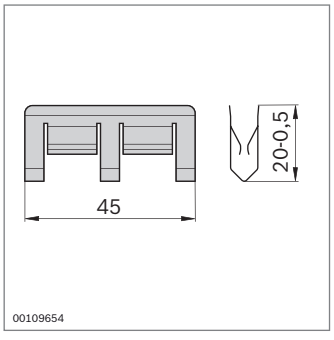
- For clamping surface elements in EcoSafe protective fence profiles 30x30 WG30 and 30x30 WG40
- Secure clamping
- Fill sections of the protective frames with as many panels as you wish







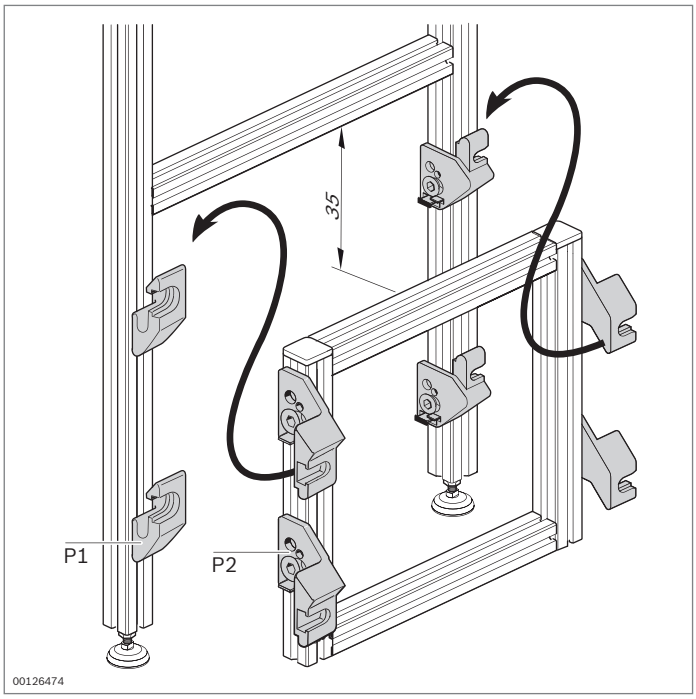




Spring clamping element		No.
	100	**3 842 525 014**

Material: Spring steel, stainless

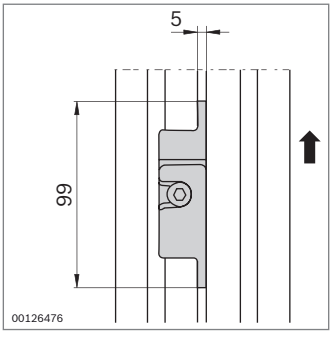
10

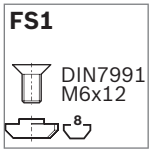


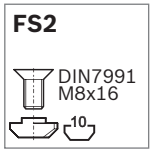
Suspension piece for frames

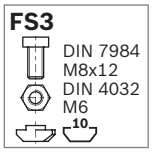


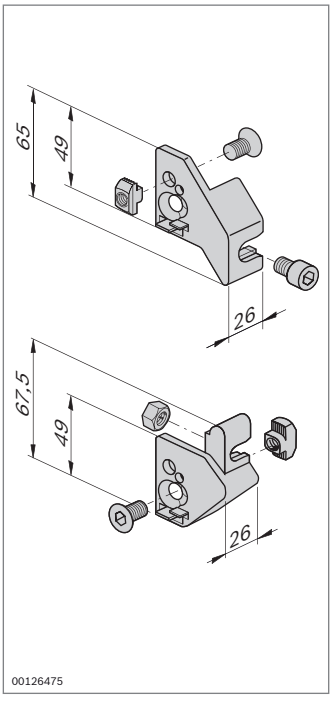
- Quick suspension and removal of pre-assembled frames in prepared supporting constructions
- Protection against unintentional lifting out thanks to screw fittings on both suspension piece parts











Suspension piece	P1	P2	No.	FS
Set	45	30	**3 842 515 531**	4xFS1, 4xFS2, 4xFS3
Set	45	45	**3 842 515 863**	8xFS2, 4xFS3

Material: Diecast zinc

Scope of delivery: Four suspension pieces, incl. fastening material (FS)

Installation elements



Cable duct (p. 11-2)



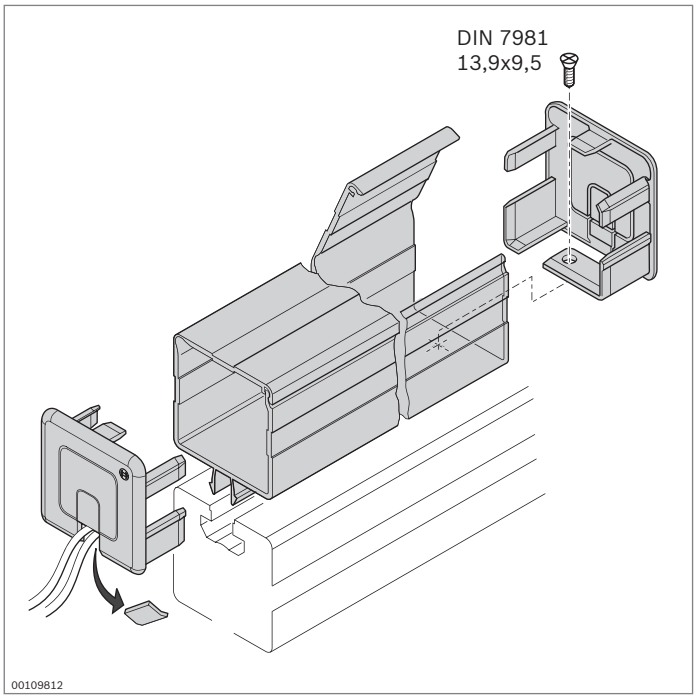
Cable bracket (p. 11-3)



Quick-lock (p. 11-4)

It is important for electrical leads to be laid clearly. Only if they are installed in an orderly way can electrical faults be easily located and eliminated.

For this reason, cable ducts and cable brackets are important elements when it comes to maintenance-friendly electrical installation on all kinds of constructions made of basic mechanical elements.

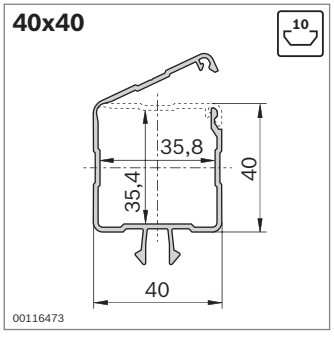


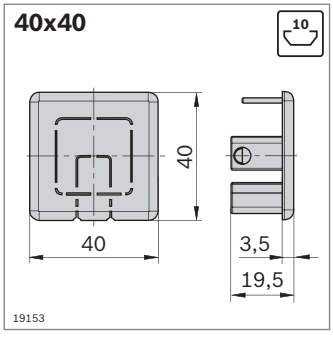
Cable duct

10

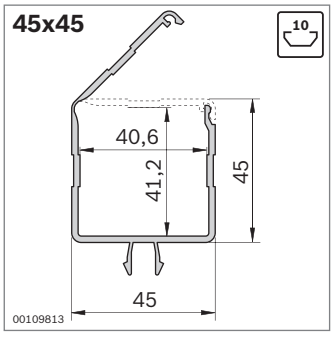
- Cable duct for routing electrical lines
- Captive cover
- Easily accessible
- Houses several cables
- Simple, fast assembly by clipping into the 10 mm slot
- Cap for closing the cable duct with pre-punched notches for cable bushing

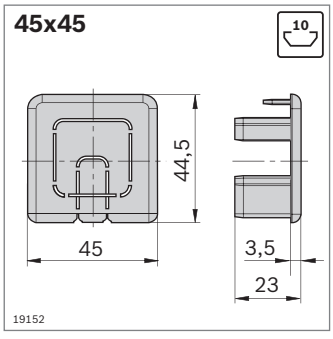
Required accessories:
Screw DIN 7981 3.9x9.5 for fastening the cap to the cable duct



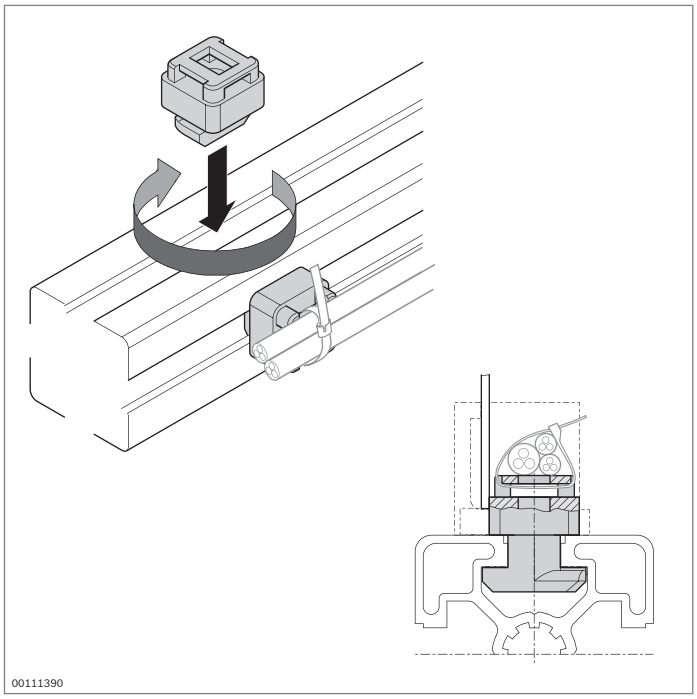


		L (mm)		No.
Cable duct 40x40		2000	1	**3 842 532 363**
40x40 cap			10	**3 842 535 921**
Material:	Cable duct: PVC, black Cap: PA, black			





		L (mm)		No.
Cable duct 45x45		2000	1	**3 842 523 014**
45x45 cap			10	**3 842 535 676**
Material:	Cable duct: PVC, black Cap: PA, black			

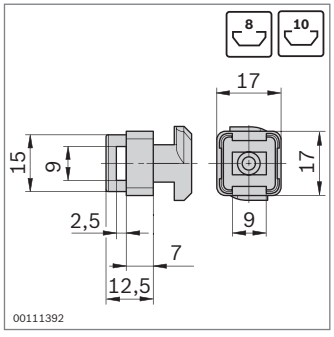


Cable bracket



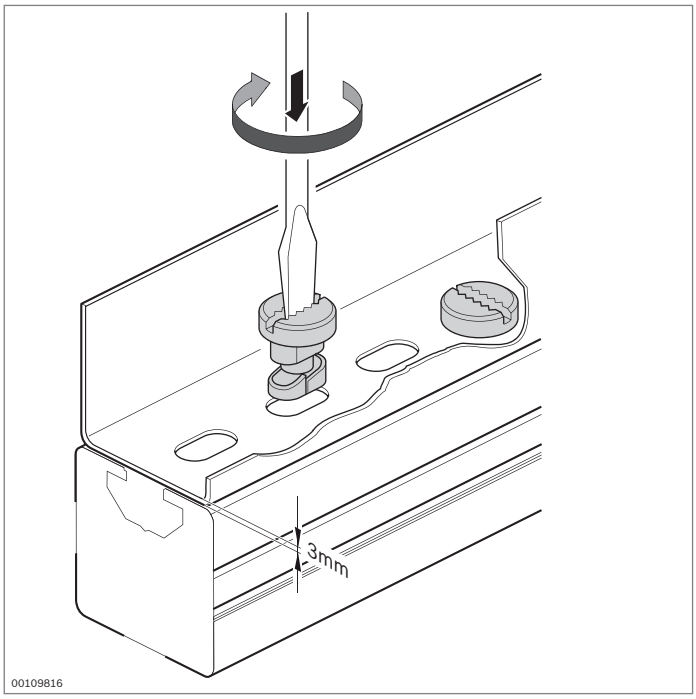
- Cable bracket for fastening individual cables with cable fasteners
- For use behind panes or side panels
- Dimensions suitable for Variofix block for 10 mm slot

Required accessories:
Cable fasteners



Cable bracket	Slot		No.
	8	100	**3 842 526 565**
	10	100	**3 842 526 564**

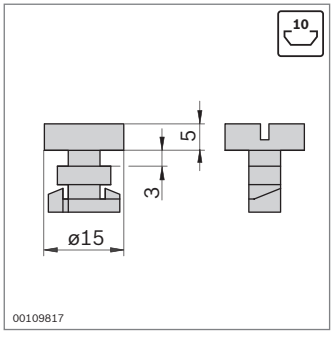
Material: PA, black



Quick-lock

10

- Quick-lock for fastening commercially available cable ducts



Quick-lock			No.
		100	**3 842 146 920**
Material:	PA, black		

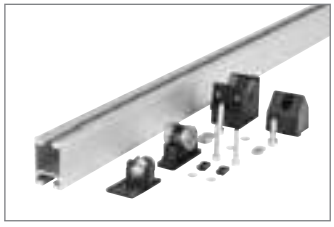
Elements for manual movement



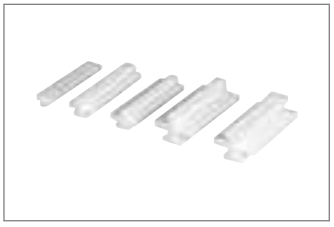
Slide hangers, spring hooks (p. 12-2)



Sliders for surface element (p. 12-3)



Components for sliding door (p. 12-4)



Sliders for profiles (p. 12-6)



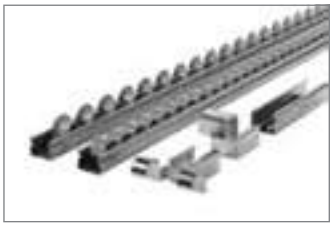
Support wheels (p. 12-10)



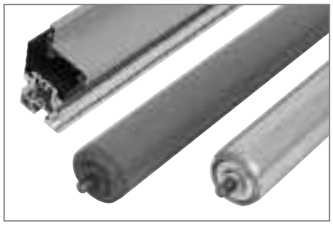
Rack, pinion (p. 12-11)



Conveyor track Lean (p. 12-13)



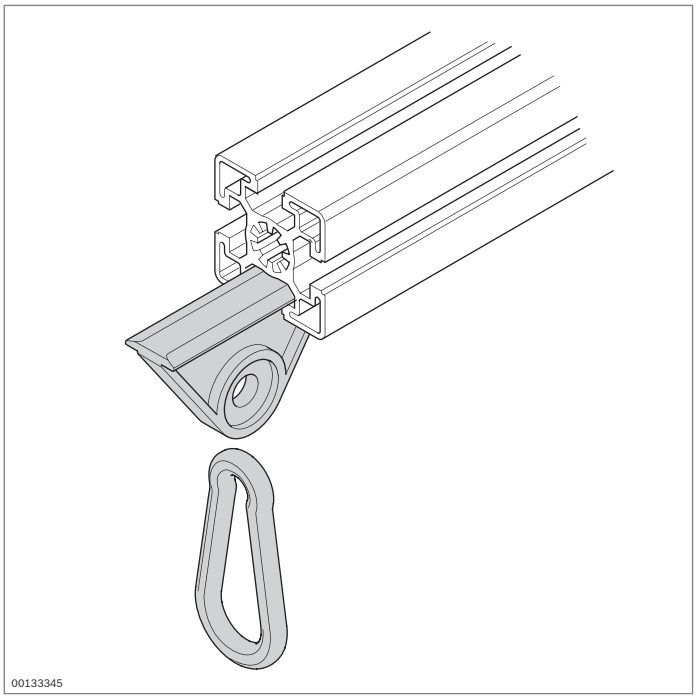
Conveyor track XLean (p. 12-18)



Conveyor track EcoFlow (p. 12-21)



Profiles for the installation of conveyor media (p. 12-29)



Slide hanger
Spring hook



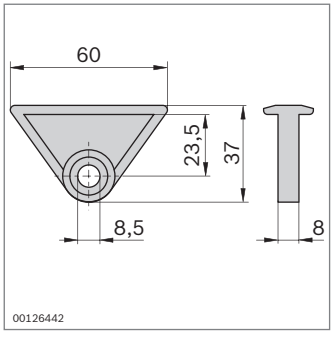
Slide hanger

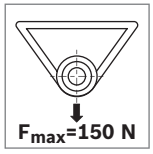
- Slide hanger as an economical solution for sliding tool hangers
- Maximum load: 150 N
- Guide in 10 mm profile slot
- Sliding block can be used as a stopper

Accessories: sliding block as a stopper (p. 3-7)

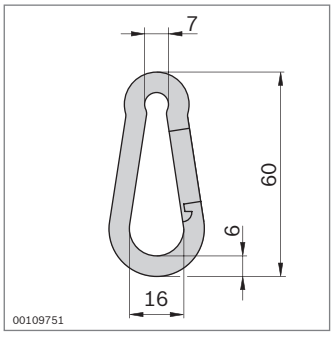
Spring hook

- Spring hook for fastening tools to the slide hanger:
  - Quick, easy replacement

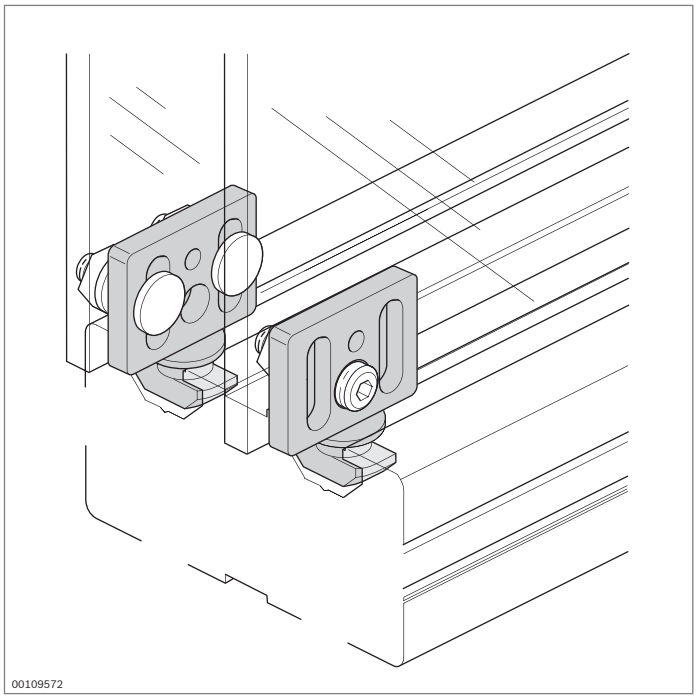




Slide hanger		No.
		3 842 218 953
Material:	POM, natural	



Spring hook		No.
		0 842 901 309
Material:	Steel, galvanized	



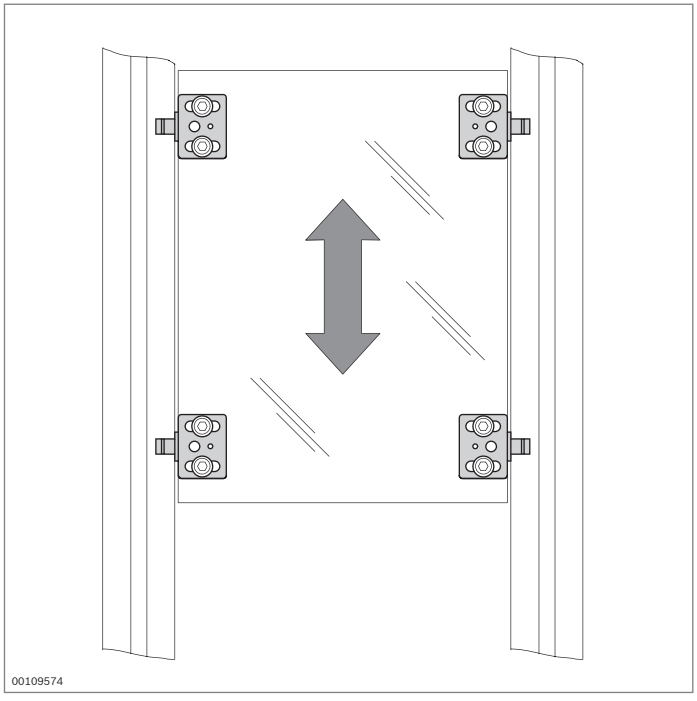
Slider for surface element

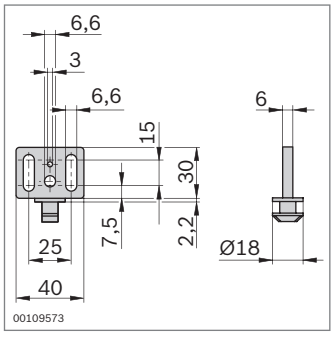
10

- For the construction of sliding and lifting doors
- High functional safety
- For any thickness of the surface element or aluminum profile frame

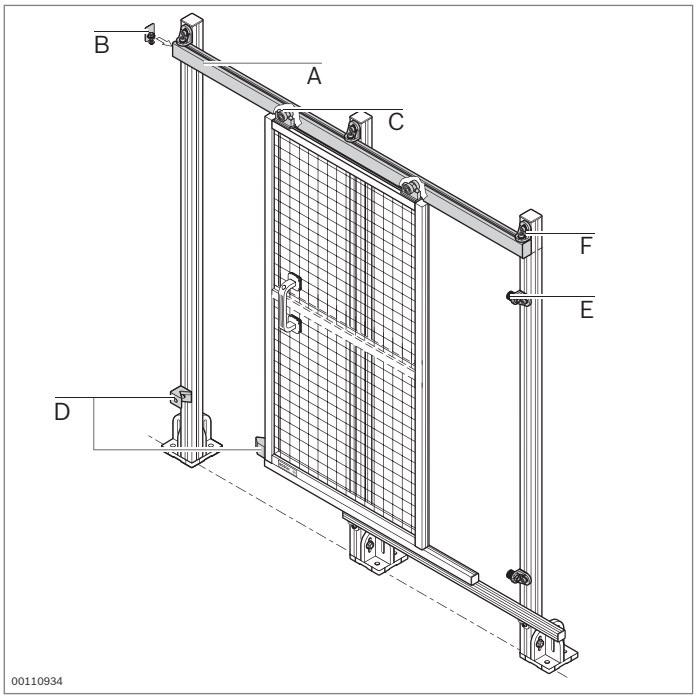
Required accessories:
Screws and nuts/sliding blocks for fastening surface elements

Optional accessories:
Counterbalance for lifting doors (p. 9-2)





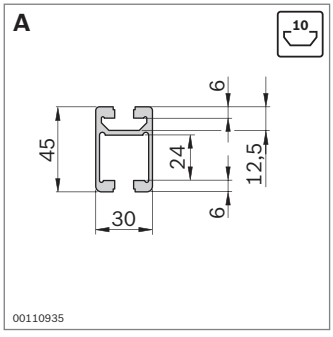
Slider		No.
	10	**3 842 530 303**
Material:	POM, black	



Components for sliding door

10

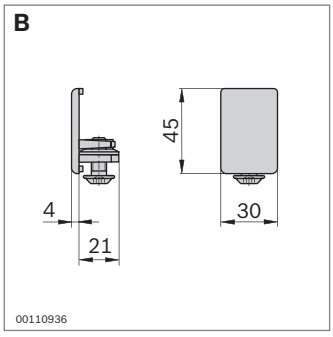
- Components for constructing sliding doors in different dimensions

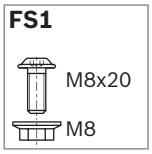


- Profile rails for trolley suspension

Profile rail		L (mm)	No.
1 pc		40 ... 5600	**3 842 992 946/L**
20 pcs		5600	**3 842 523 598**

Material: Aluminum, natural, anodized
Accessories: Bracket set R28x38 for fastening to strut profiles with 10 mm slot (p. 12-5)

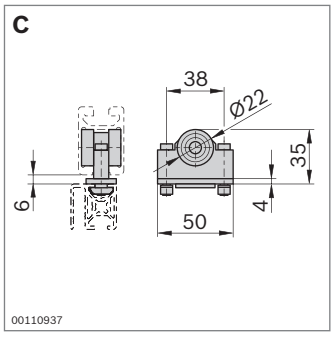


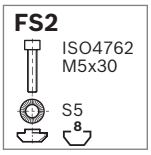


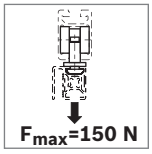
- Profile rail end piece for use as cap with stop
- With screw protection

End piece		No.	FS
	20	**3 842 521 513**	FS1

Material: End piece: PA, black
Fastening material: steel, galvanized
Scope of delivery: Incl. fastening material (FS)

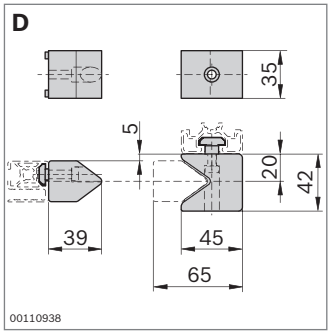


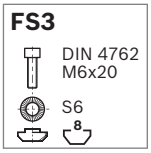


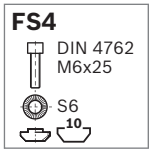


▶ Trolley with dust-proof ball bearings for easily sliding doors

Trolley		No.	FS
		3 842 524 153	2xFS2
Material:	PA, black/steel, galvanized Fastening material: steel, galvanized		
Scope of delivery:	Incl. fastening material (FS)		

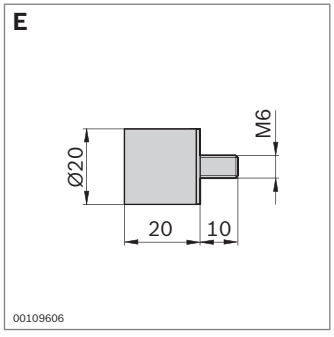






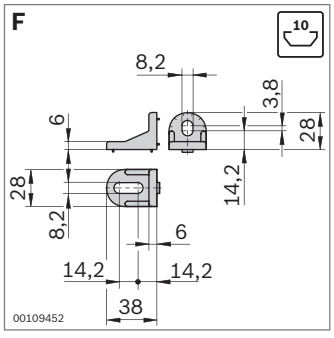
▶ Stop kit for a damped closing of the sliding door

Stop kit		No.	FS
		3 842 524 490	FS3, FS4
Material:	PA, black Fastening material: steel, galvanized		
Scope of delivery:	Incl. fastening material (FS)		

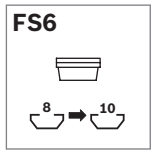


▶ Bumper for a damped stop

Bumper		No.
	10	**3 842 510 462**
Material:	Rubber, hardness: 55° Shore A	
Accessories:	Bracket set R28x38 for fastening to strut profiles with 10 mm slot	



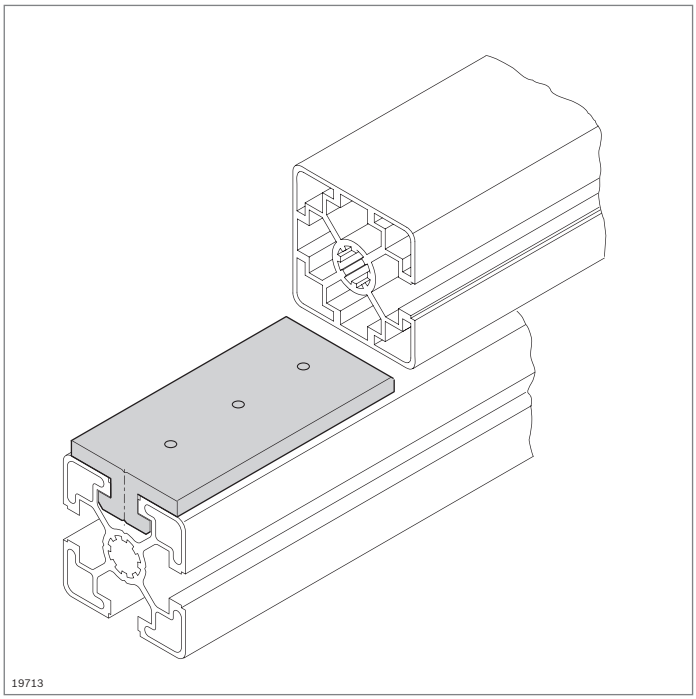




▶ Bracket for fastening a profile rail to strut profiles with 10 mm slot

Bracket	Slot	ESD	No.	FS
R28x38 Set (standard)	10/10		**3 842 521 580**	2xFS5, 4xFS6
Material:	Diecast zinc Fastening material: steel, galvanized			
Scope of delivery:	Incl. fastening material (FS)			

12



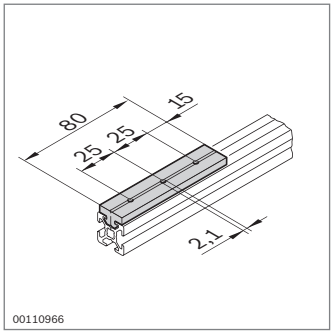
Sliders for profiles

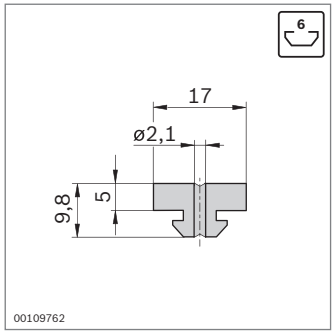


Slider

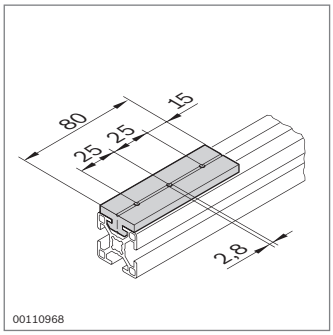
- For the construction of low-friction guides, e.g. for manual sliding, sliding and lifting doors, as well as drawers

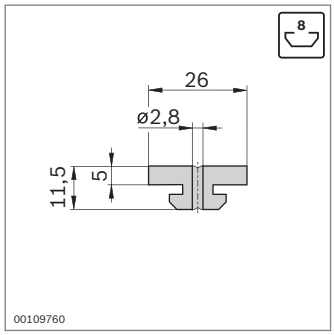
Accessories, optional:
Sheet-metal screws for securing the slider in a profile slot



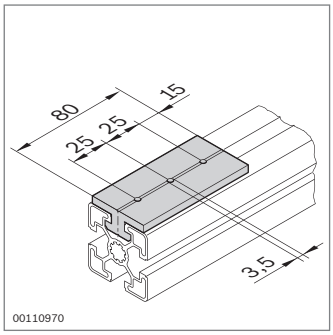


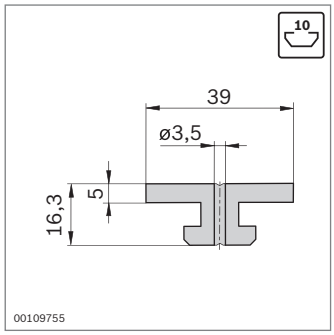
Slider, flat		No.
	10	**3 842 523 213**
Material:	POM, natural	



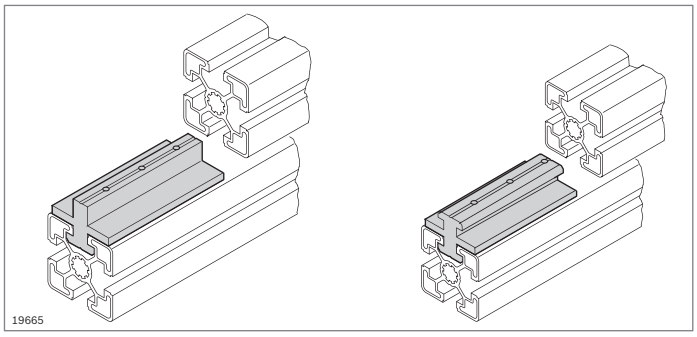


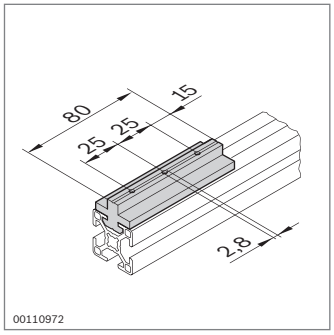
Slider, flat		No.
	10	**3 842 523 212**
Material:	POM, natural	

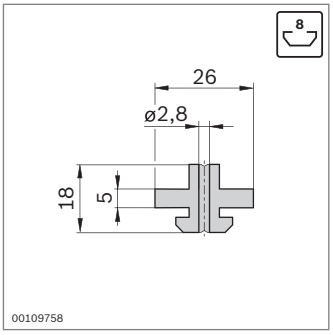




Slider, flat		No.
	10	**3 842 530 329**
Material:	POM, natural	

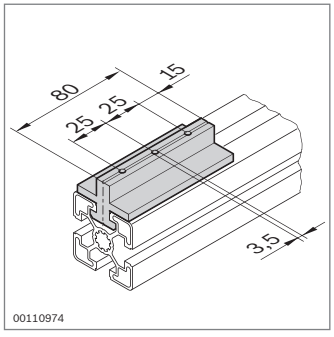


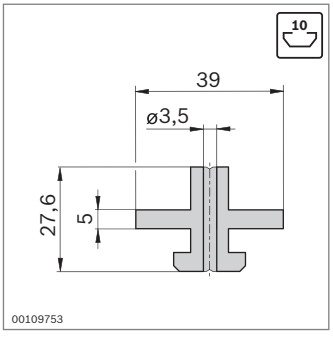




Slider, center		No.
	10	**3 842 523 210**

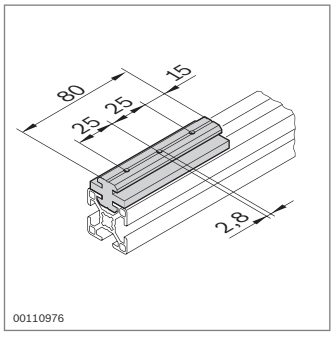
Material: POM, natural

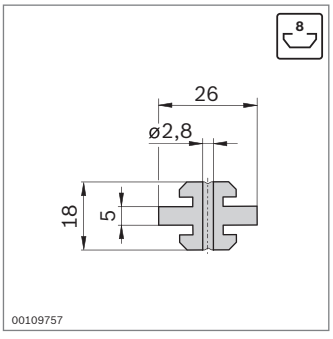




Slider, center		No.
	10	**3 842 523 206**

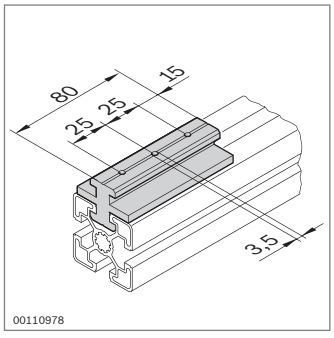
Material: POM, natural

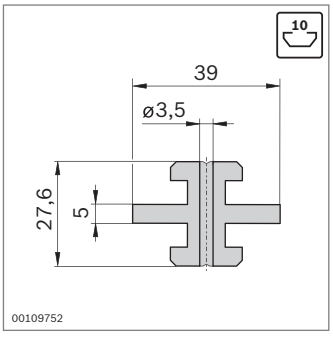




Slider, center		No.
	10	**3 842 523 209**

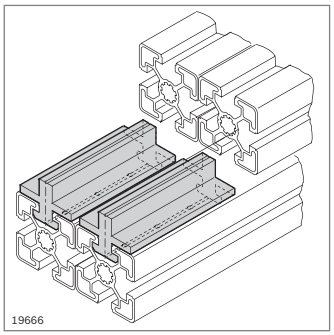
Material: POM, natural





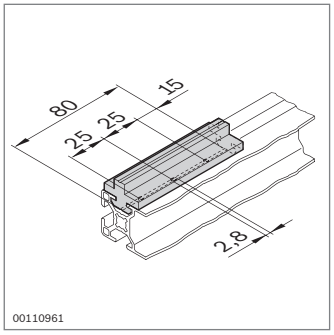
Slider, center		No.
	10	**3 842 523 205**

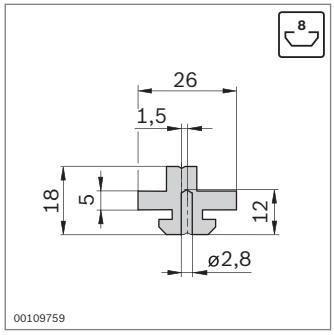
Material: POM, natural



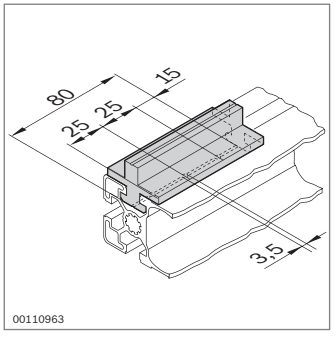
Offset sliders

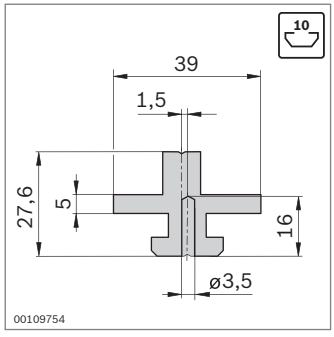
- For constructing multiple sliding doors



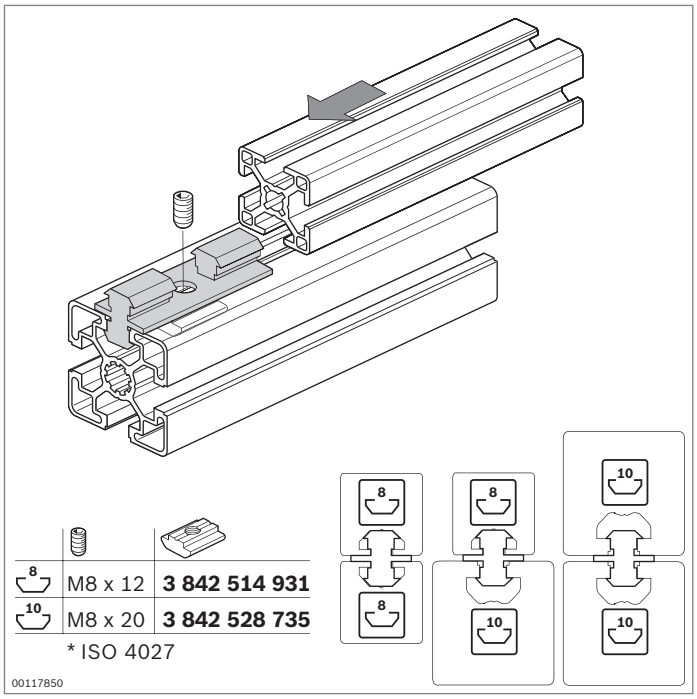


Slider, offset		No.
	10	**3 842 523 211**
Material:	POM, natural	





Slider, offset		No.
	10	**3 842 523 207**
Material:	POM, natural	

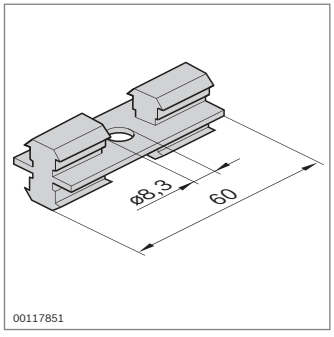


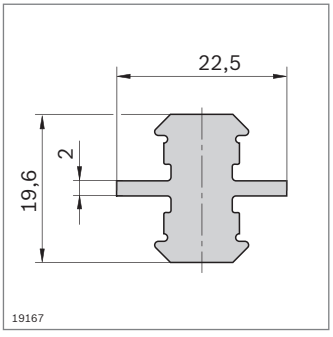
Multi-slider



- Multi-slider for constructing low-friction guides
- Fits all profiles with 8 mm and 10 mm slot widths
- Combination of profiles with different slot widths possible

Accessories:
Socket setscrews (ISO 4027) and sliding blocks (p. 3-7) to fasten the slider in the profile slot

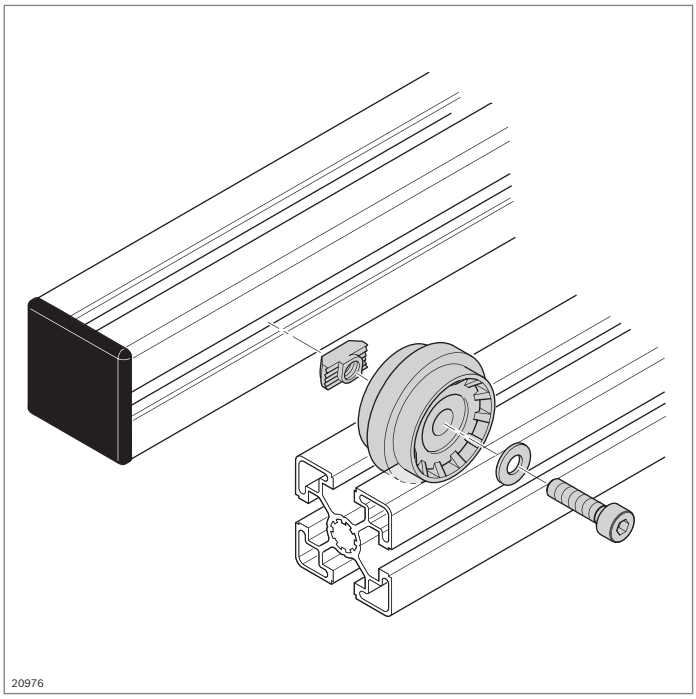




Multi-slider 8/10		No.
	10	**3 842 513 517**

Material: POM, natural

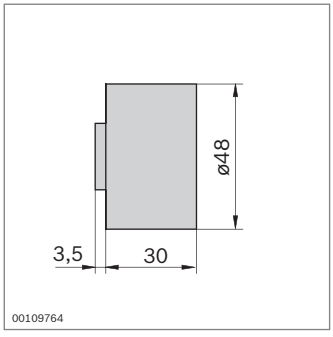
12

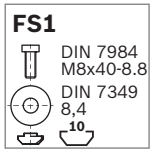


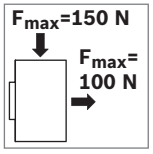
Support rollers



- Support wheel for constructing trolleys or roller sections
- Mounting in profiles with 10 mm slot
- Good running characteristics thanks to deep-groove ball bearing with large diameter
- Support wheel with rim can be inserted in 10 mm slot
- ESD-conductive



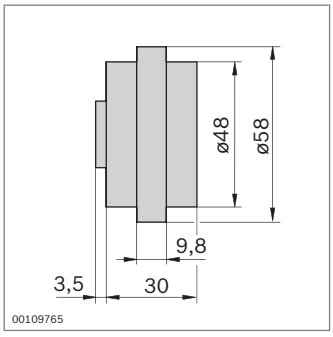


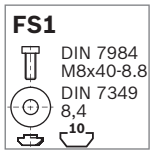


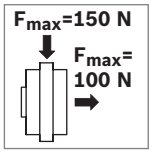
Support wheel		No.	FS
	10	**3 842 218 942**	FS1

Material: Vestamid, black
Fastening material: steel, galvanized

Scope of delivery: Incl. fastening material (FS)



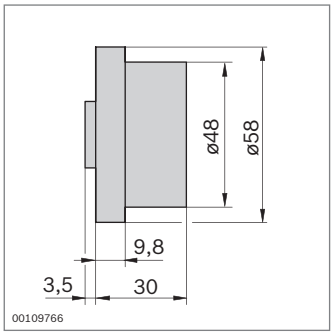


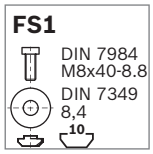


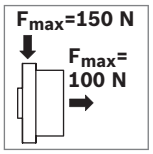
Support wheels with center rim		No.	FS
	10	**3 842 218 940**	FS1

Material: Vestamid, black
Fastening material: steel, galvanized

Scope of delivery: Incl. fastening material (FS)



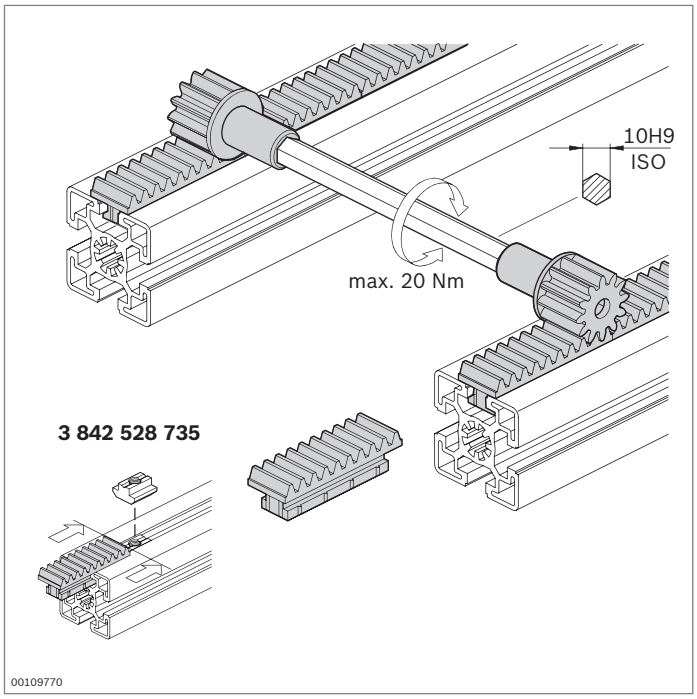




Support wheels with side rim		No.	FS
	10	**3 842 218 941**	FS1

Material: Vestamid, black
Fastening material: steel, galvanized

Scope of delivery: Incl. fastening material (FS)



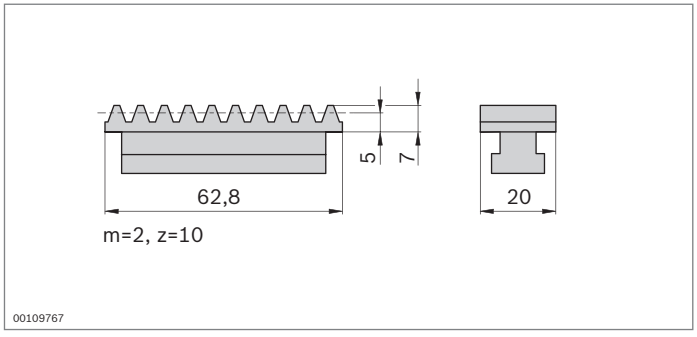
Rack
Pinion

10

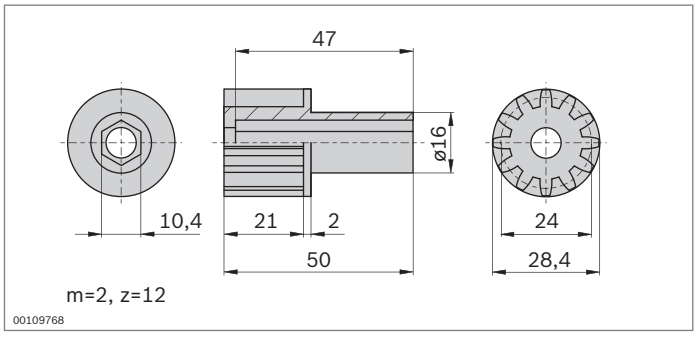
- For constructing synchronous shafts to prevent tilting with large guide widths

Required accessories:

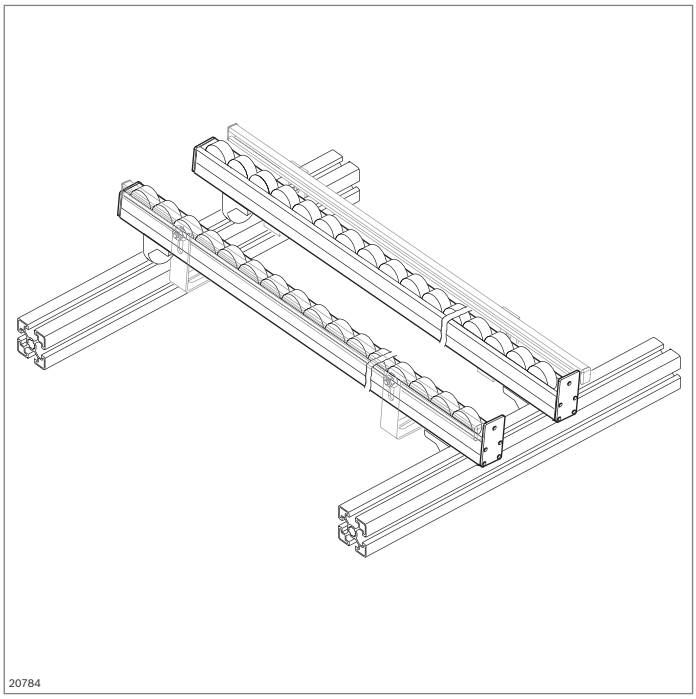
- Commercially available hexagonal shaft 10H9
- Sliding block for securing the rack in the slot (p. 3-7)



Rack		No.
	10	**3 842 501 578**
Material:	PA, black	

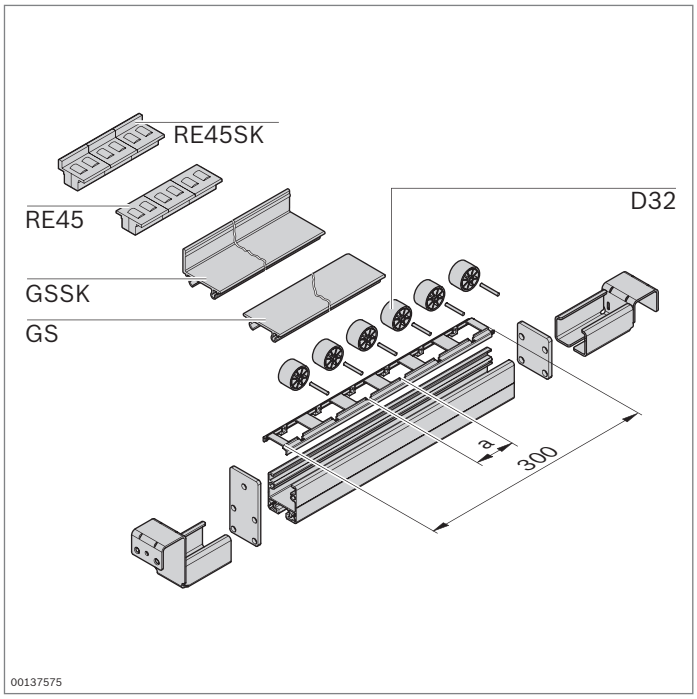


Pinion		No.
		3 842 501 576
Material:	POM, white	



Elements for the construction of conveyor sections

- Assembly elements for constructing manual conveyor sections
- Various clip-in conveyor media, with and without lateral guide
- Standard slots as interface for construction
- EcoFlow for manual linking of workstations



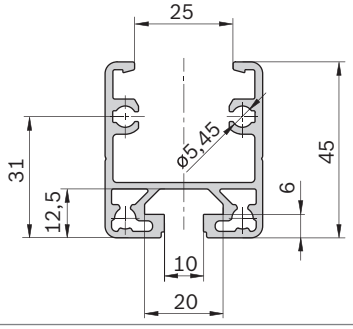
Conveyor track Lean

- Components for constructing manual conveyor sections
- Based on multi-functional U-profile
- Clip-in conveyor elements for all needs:
  - Rollers with or without roller flange; 4 colors to visually identify inventories (kanban) or to differentiate between good and reject parts
  - Slide rails with or without integrated lateral guide (GS, GSSK)
  - Roller elements with and without roller flange (RE45SK, RE45)

Accessories:
Round tube D28 (p. 2-67)

U-profile

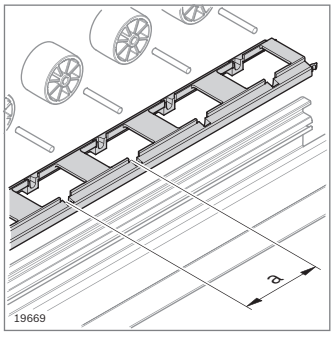
A = 4,4 cm²
I_x = 10,3 cm⁴
I_y = 8,3 cm⁴
W_x = 4,6 cm³
W_y = 4,1 cm³
m = 1,2 kg/m



- U-profile with 10 mm slot

U-profile		L (mm)	ESD	No.
1 pc		30 ... 6000		**3 842 993 316/L**
20 pcs		6070		**3 842 535 115**
1 pc		30 ... 6000	ESD	**3 842 995 027/L**
20 pcs		6070	ESD	**3 842 541 814**

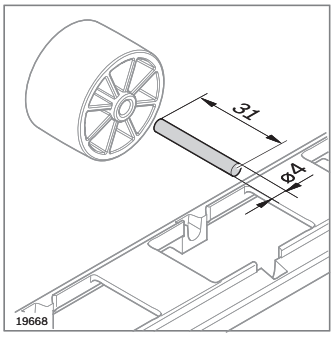
Material: Aluminum, anodized
ESD: aluminum, cold-pressed



- Roller carrier for rollers D32 and D32SK (p. 12-14)

Roller carrier	a (mm)	ESD		No.
D32/37.5	37.5		20	**3 842 537 944**
		ESD	20	**3 842 537 945**
D32/50	50		20	**3 842 532 887**
		ESD	20	**3 842 538 094**
D 32SK/50	50		20	**3 842 532 886**
		ESD	20	**3 842 537 947**

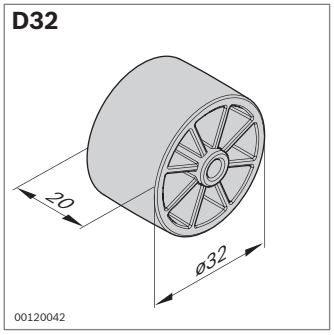
Material: ABS

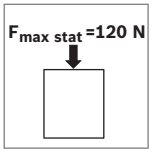


▶ Steel axis for rollers D32, D32SK

Steel axis			No.
		100	**3 842 532 862**

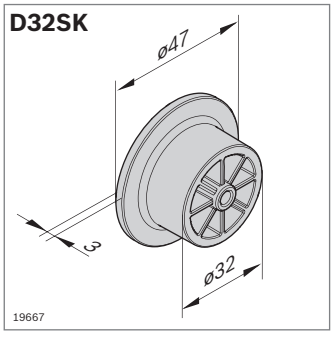
Material: Steel, stainless

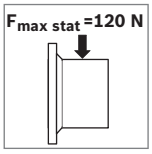




Roller		ESD		No.
D32	**Black**		100	**3 842 532 865**
		⚠	100	**3 842 537 961**
	Red		100	**3 842 532 866**
		⚠	100	**3 842 537 960**
	Yellow		100	**3 842 532 870**
		⚠	100	**3 842 537 959**
	Green		100	**3 842 532 752**
		⚠	100	**3 842 537 958**

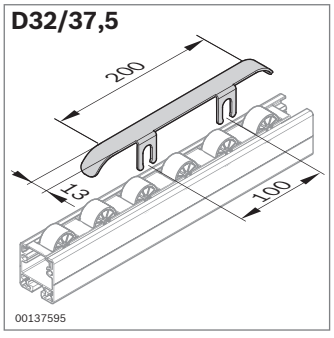
Material: PE, color/ESD in PA, color

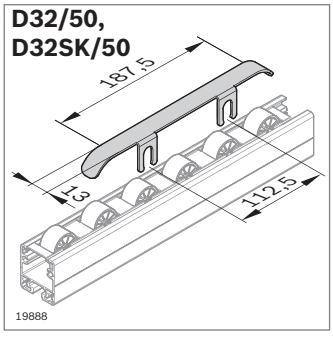




Roller		ESD		No.
D32SK	**Black**		100	**3 842 532 867**
		⚠	100	**3 842 537 965**
	Red		100	**3 842 532 883**
		⚠	100	**3 842 537 964**
	Yellow		100	**3 842 532 884**
		⚠	100	**3 842 537 963**
	Green		100	**3 842 532 880**
		⚠	100	**3 842 537 962**

Material: PE, color/ESD in PA, color

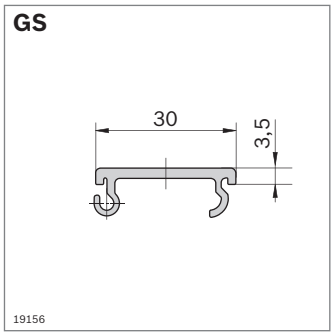


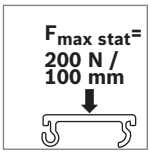


Brake	ESD		No.
D32/37.5	⚠	20	**3 842 537 948**
D32/50, D32SK/50	⚠	20	**3 842 532 881**

Material: Steel, galvanized

GS



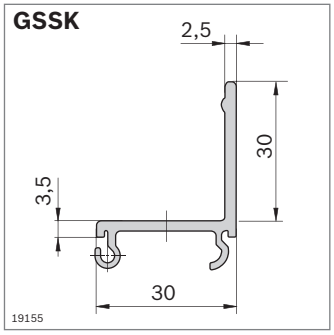


- Slide rail GS for constructing conveyor tracks with large gradients
- Slide rail for use with heavy containers

Slide rail	L (mm)	ESD		No.
GS	3000		20	**3 842 535 124**
	3000	⚠	20	**3 842 537 803**

Material: PVC, gray/ESD in black

GSSK



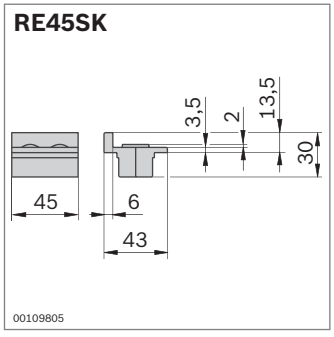


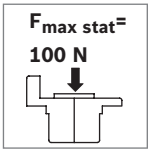
- Slide rail with lateral guide GSSK for constructing conveyor tracks with large gradients
- Slide rail for use with heavy containers

Slide rail	L (mm)	ESD		No.
GSSK	3000		20	**3 842 537 806**
	3000	⚠	20	**3 842 537 807**

Material: PVC, gray/ESD in black

RE45SK

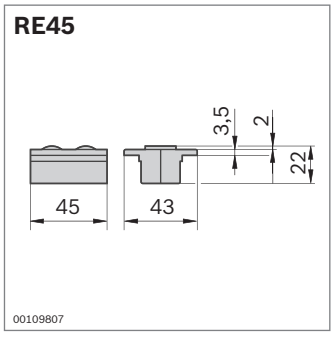


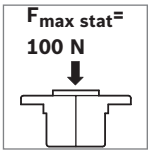


Roller element	ESD		No.
RE45SK		100	**3 842 319 500**
	⚠	100	**3 842 538 065**

Material: PA, black

RE45

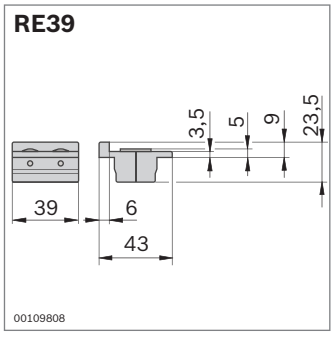


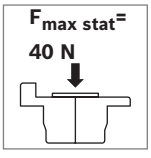


Roller element	ESD		No.
RE45		100	**3 842 319 501**
	⚠	100	**3 842 538 064**

Material: PA, black

RE39

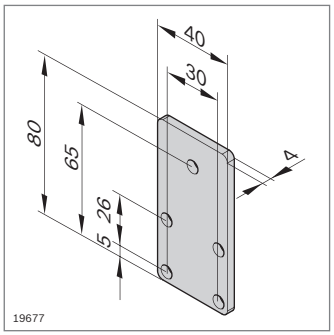




Roller element	ESD		No.
RE39		10	**3 842 520 000**
	⚠	10	**3 842 538 245**

Material: PA, black

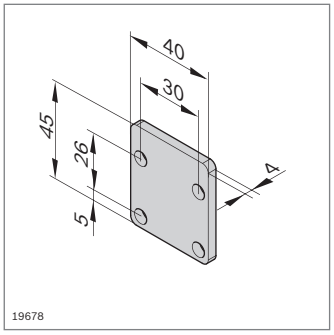
12





Stop plate with stop		No.	FS
40x80	20	**3 842 535 121**	4xFS1

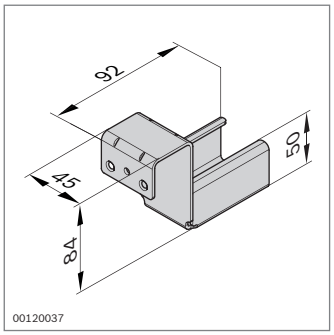
Material: Steel, galvanized
Scope of delivery: Incl. fastening material (FS)

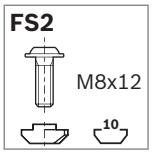




Stop plate without stop		No.	FS
40x45	20	**3 842 535 122**	4xFS1

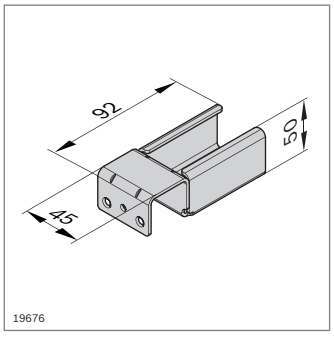
Material: Steel, galvanized
Scope of delivery: Incl. fastening material (FS)

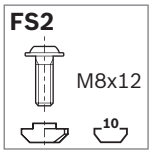




Rail holder with stop		No.	FS
	20	**3 842 537 660**	FS2

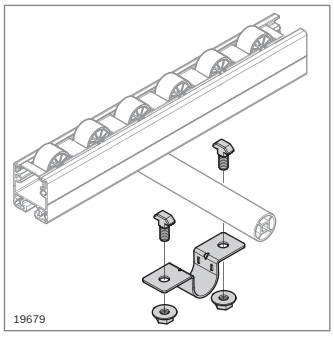
Material: Steel, galvanized
Scope of delivery: Incl. fastening material (FS)



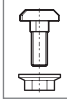


Rail holder without stop		No.	FS
	20	**3 842 537 661**	FS2

Material: Steel, galvanized
Scope of delivery: Incl. fastening material (FS)



FS3



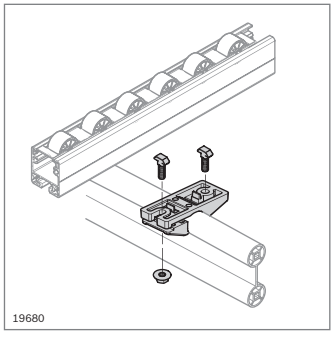
HS10-M8x20

M8

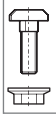
D28 tube clip		No.	FS
	20	**3 842 535 364**	2xFS3

Material: Steel, galvanized

Scope of delivery: Incl. fastening material (FS)



FS4



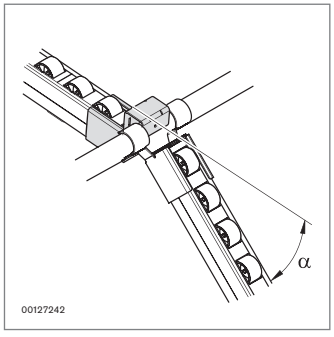
HS10-M8x30

EN 1661-M8-8.8

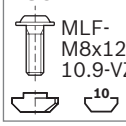
Holder for strut profile D28x55		No.	FS
	20	**3 842 537 720**	2xFS4

Material: Steel, galvanized

Scope of delivery: Incl. fastening material (FS)



FS5

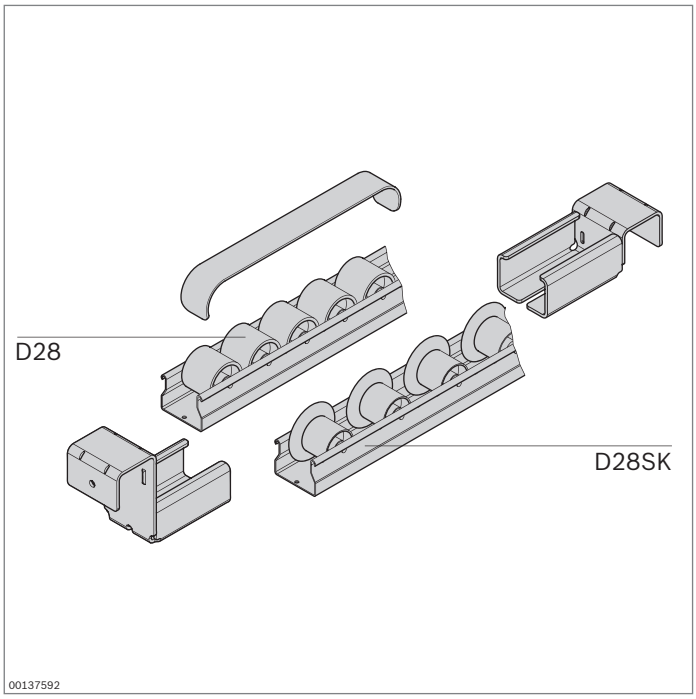


MLF-M8x12-10.9-VZ

- Flexible bridge with maximum tilt (α_{max}) from horizontal:
  - With round tube D28 (p. 2-67): α_{max} = 40°
  - With strut profile D28x55 (p. 2-68): α_{max} = 30°

Flexible bridge		No.	FS
	20	**3 842 537 951**	FS5

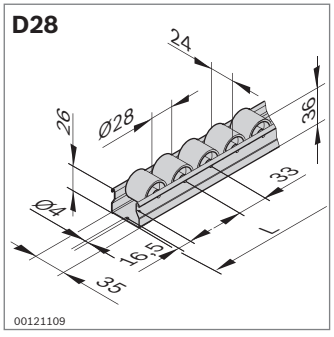
Material: Steel, galvanized

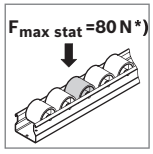


Conveyor track XLean

- Conveyor track made of steel profiles with plastic rollers and optional roller flange
- Available in ESD-conductive version
- Self-supporting roller section
- Roller section with drill holes for fastening

Accessories:
Round tube D28 (p. 2-67)

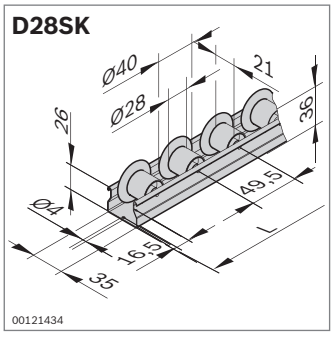


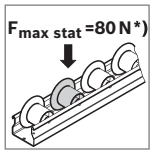


* per roller

Roller section	L (mm)	ESD		No.
D28	100 ... 4500		1	**3 842 993 321/L**
	4500		50	**3 842 537 776**
	100 ... 4500	ESD	1	**3 842 993 431/L**
	4500	ESD	50	**3 842 537 778**

Material: Rail: steel, galvanized
Roller: PP

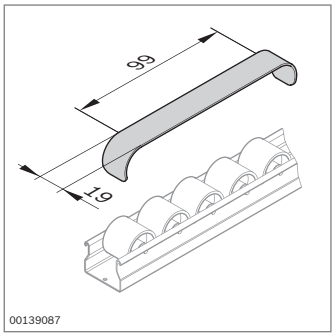




* per roller

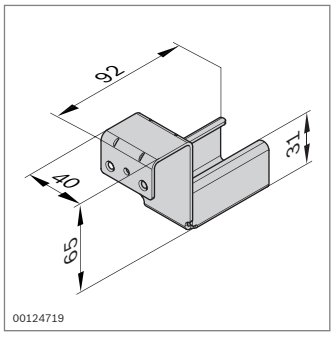
Roller section	L (mm)	ESD		No.
D28SK	100 ... 4500		1	**3 842 993 322/L**
	4500		50	**3 842 537 777**
	100 ... 4500	ESD	1	**3 842 993 432/L**
	4500	ESD	50	**3 842 537 779**

Material: Rail: steel, galvanized
Roller: PP

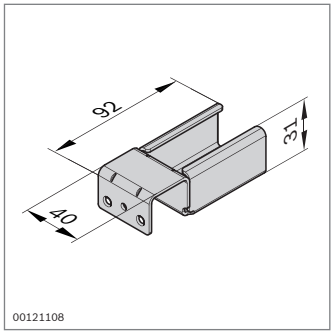


Brake		No.
	20	**3 842 532 871**

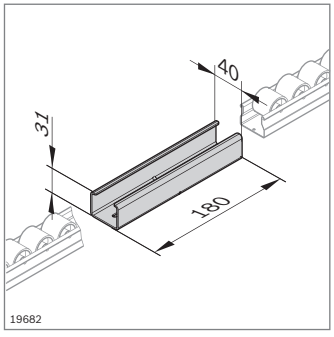
Material: Spring steel



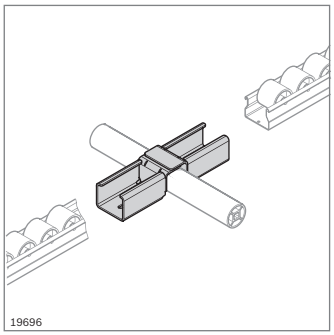
Rail holder with stop		**No.**
	20	**3 842 538 372**
Material:	Steel, galvanized	



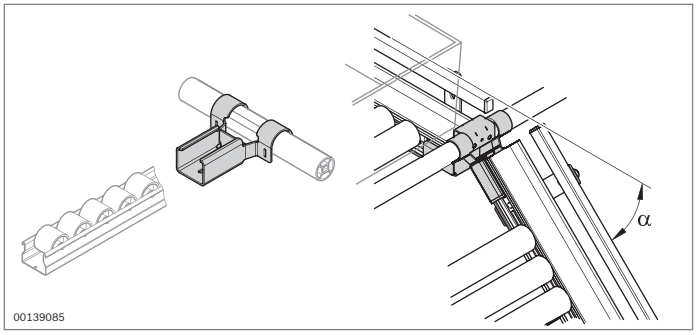
Rail holder without stop		**No.**
	20	**3 842 537 687**
Material:	Steel, galvanized	



Section link		**No.**
	20	**3 842 536 722**
Material:	Steel, galvanized	

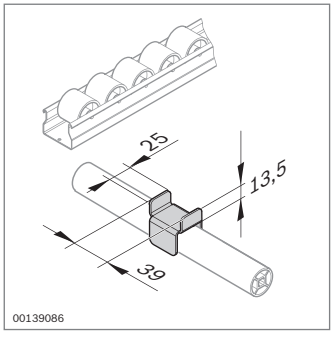


Bridge		**No.**
	20	**3 842 536 724**
Material:	Steel, galvanized	

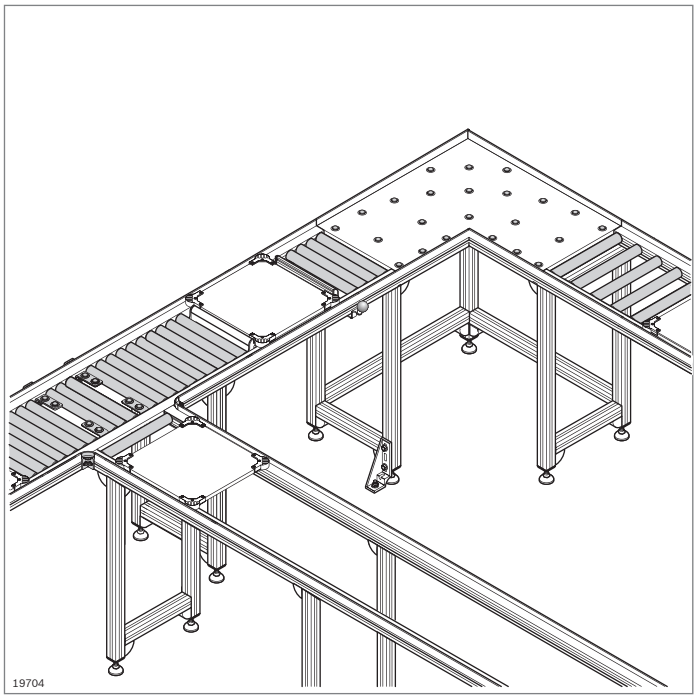


- Flexible bridge with maximum tilt (α_{max}) from horizontal:
  - With round tube D28 (p. 2-67): α_{max} = 40°
  - With strut profile D28x55 (p. 2-68): α_{max} = 30°

Flexible bridge		**No.**
	20	**3 842 537 911**
Material:	Steel, galvanized	

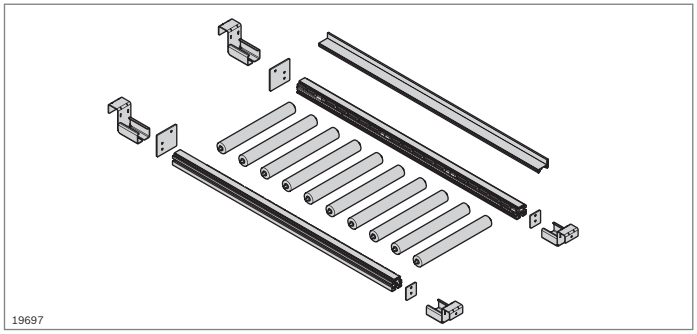


Mount		**No.**
	20	**3 842 537 657**
Material:	Steel, galvanized	



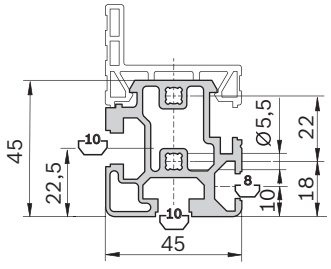
EcoFlow conveyor track

- Based on EcoFlow section profiles
- For manual slide sections with rollers
- Clip-in guide profiles with lateral guide and conveyor rollers



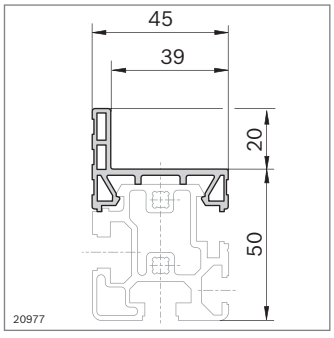
MV45x45

A = 6,2 cm²
I_x = 11,8 cm⁴
I_y = 10,5 cm⁴
W_x = – cm³
W_y = – cm³
m = 1,7 kg/m



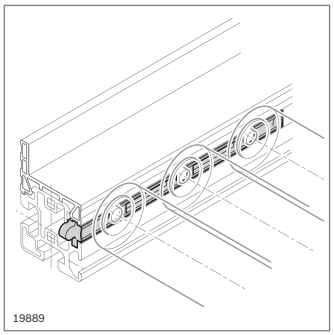
Section profile MV45x45		L (mm)	No.
1 pc		30 ... 6070	**3 842 993 029/L**
20 pcs		6070	**3 842 537 321**

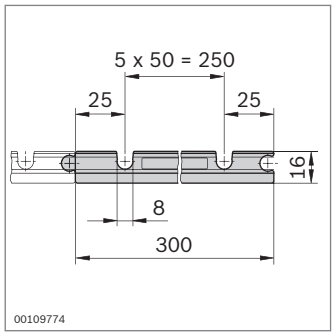
Material: Aluminum, anodized



Guide profile MV45	L (mm)	ESD		No.
	30 ... 3000		1	**3 842 993 511/L**
	3000		10	**3 842 525 443**
	30 ... 3000	⚠	1	**3 842 993 512/L**
	3000	⚠	10	**3 842 526 034**

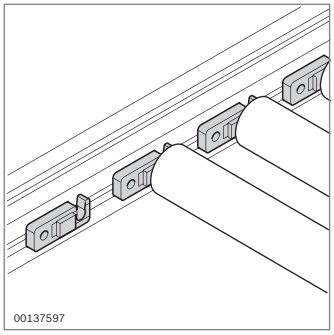
Material: PVC

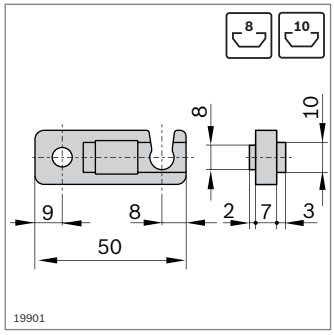




EcoFlow roller carrier	ESD		No.
	⚠	10	**3 842 535 683**

Material: ABS, black



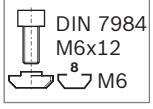


Roller mount	Slot		No.	FS
	8	10	**3 842 535 667**	FS1
	10	10	**3 842 535 668**	FS2

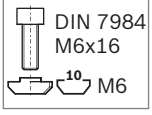
Material: Roller mount: PA6, black
Fastening material: steel, galvanized

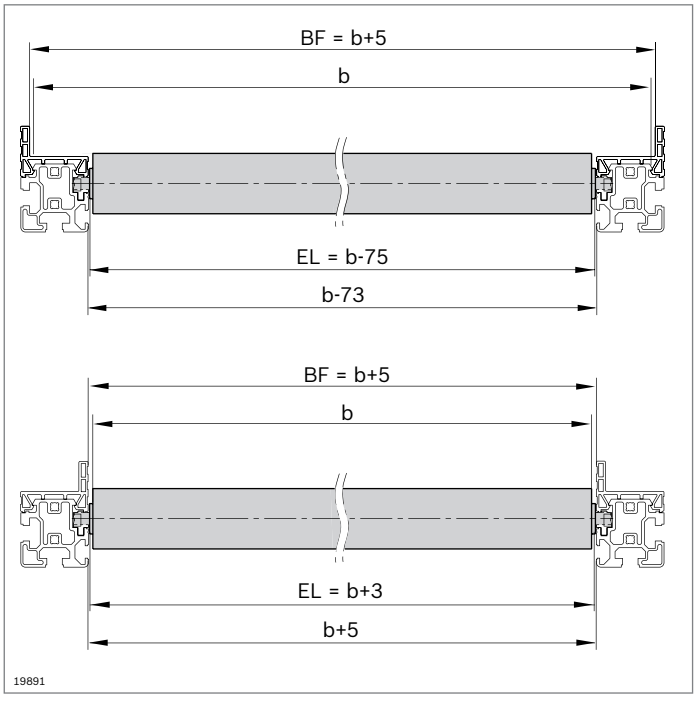
Scope of delivery: Incl. fastening material (FS)

FS1

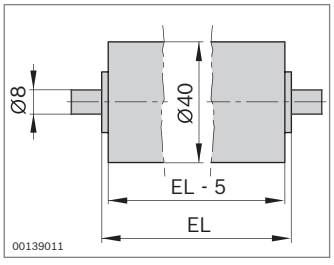


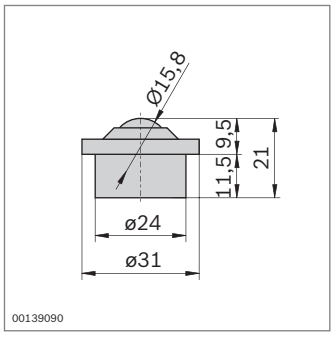
FS2

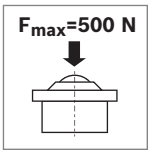




EcoFlow roller	F_{max} (N)	EL (mm)	ESD	No.
Plastic, gray	150	105 ... 605		**3 842 994 989/L**
		225		**3 842 525 740**
		325		**3 842 525 741**
		425		**3 842 525 742**
		525		**3 842 537 164**
Steel, galvanized	500	105 ... 1005	⚠	**3 842 994 988/L**
		225	⚠	**3 842 525 737**
		325	⚠	**3 842 525 738**
		425	⚠	**3 842 525 739**
		525	⚠	**3 842 537 163**
Stainless steel	150	105 ... 1005		**3 842 995 008/L**



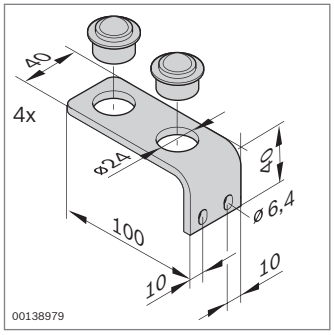


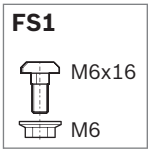


- Ball roller for smooth manual movement of large-surface goods

Ball roller	ESD		No.
		20	**3 842 541 008**

Material: Housing: steel, galvanized
Ball: stainless steel

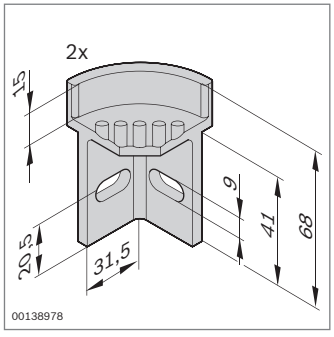


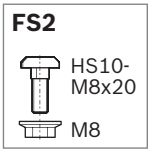


Transverse conveyors	ESD		No.	FS
		Set	**3 842 536 055**	8xFS1

Material: Bracket: steel, galvanized
Ball: stainless steel

Scope of delivery: Incl. 4x bracket plate, fastening material (FS) for 10 mm slot

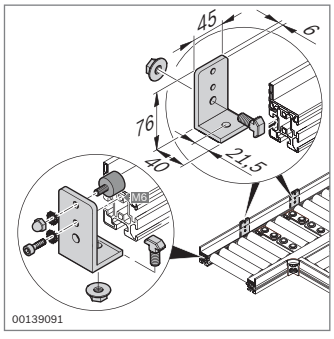


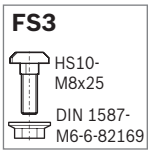


Corner piece	ESD		No.	FS
		Set	**3 842 536 056**	4xFS2

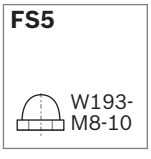
Material: PA, black, ESD-conductive

Scope of delivery: Incl. 2x corner piece, fastening material (FS) for 10 mm slot







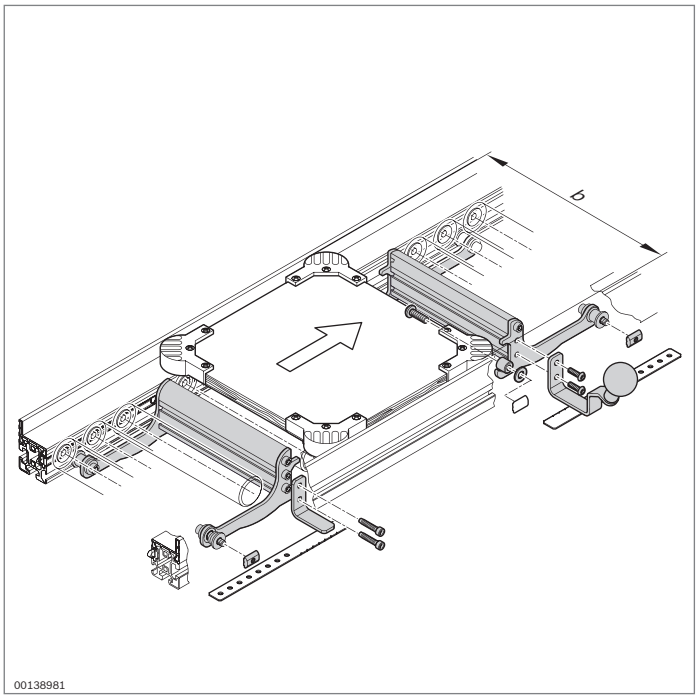




Stop		No.	FS
	Set	**3 842 536 057**	2xFS3, 4xFS4, 2xFS5 2xFS6

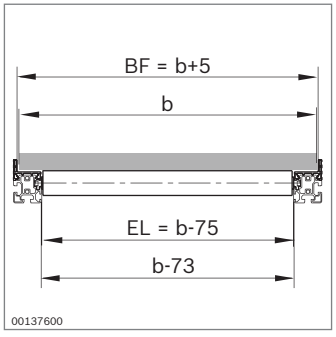
Material: Aluminum, anodized

Scope of delivery: Incl. 2x stop, fastening material (FS)



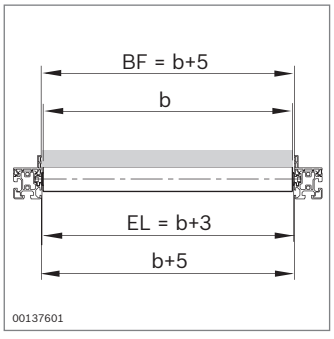
EcoFlow stop gates and return stops

- Stop gate and return stop for positioning workpieces or containers
- When planning the system, remember to leave sufficient leg room. The stop gate and return stop require 45 mm more space below the bottom.
- We recommend using a workpiece pallet with corner pieces (p. 12-25) to provide a defined stopping surface



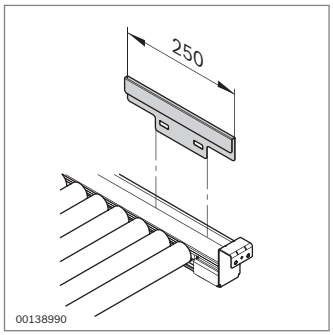
Stop gates	**EL** (mm)	**No.**
	105 ... 1005	**3 842 995 007/EL**
	225	**3 842 537 894**
	325	**3 842 537 895**
	425	**3 842 537 896**
	525	**3 842 537 897**

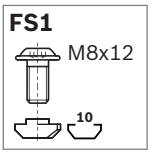
Scope of delivery: Incl. fastening material



Return stop	**EL** (mm)	**No.**
	105 ... 1005	**3 842 995 017/EL**
	225	**3 842 537 898**
	325	**3 842 537 899**
	425	**3 842 537 900**
	525	**3 842 537 901**

Scope of delivery: Incl. fastening material

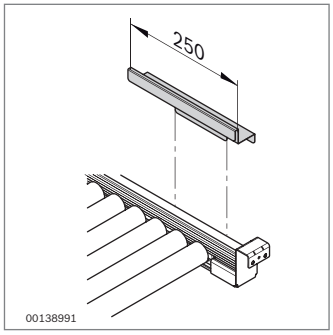


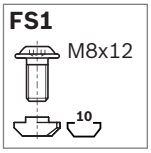


- Protective cover to shield the EcoFlow guide profile when loading the conveyor track

Protective cover		No.	FS
Outer slide rail	Set	**3 842 537 583**	4xFS1

Material: Steel, galvanized
Scope of delivery: Incl. 2x protective cover, fastening material (FS)

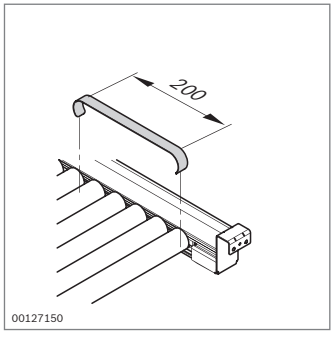




- Protective cover to shield the EcoFlow guide profile when loading the conveyor track

Protective cover		No.	FS
Inner slide rail	Set	**3 842 537 584**	4xFS1

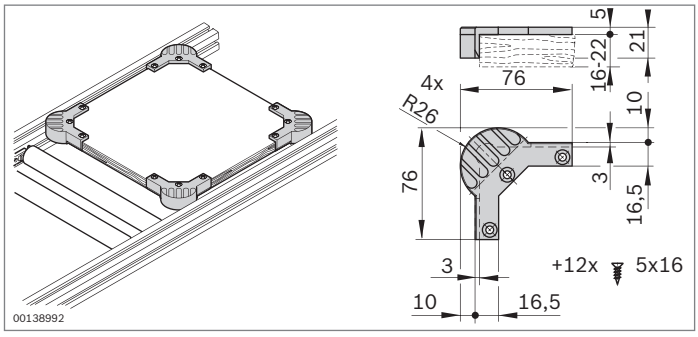
Material: Steel, galvanized
Scope of delivery: Incl. 2x protective cover, fastening material (FS)



- Brake for gently bringing containers to a stop

Brake		No.
	20	**3 842 537 740**

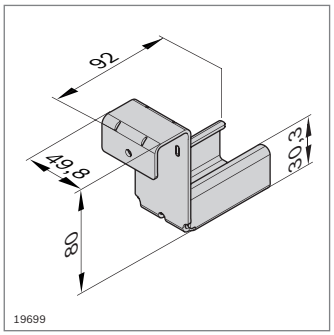
Material: Steel, galvanized



- Corner pieces for self-assembly of workpiece pallets
- For isolating parts from the pallet queue, well-defined guidance and stopping surfaces, good transition through curves and avoidance of edges where trapping may occur

Corner pieces for workpiece pallets	ESD		No.
	ESD	Set	**3 842 536 054**

Material: PA



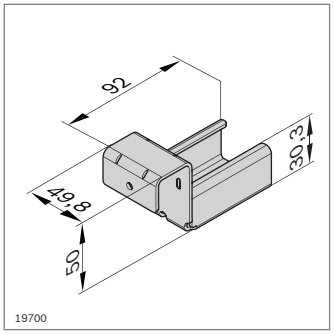
FS5

MLF-M8x12-10.9-VZ

10 M8

Rail holder with stop		No.	FS
	20	**3 842 537 664**	FS5

Material: Steel, galvanized
Accessories: Round tube D28 (p. 2-67)
Scope of delivery: Incl. fastening material (FS)



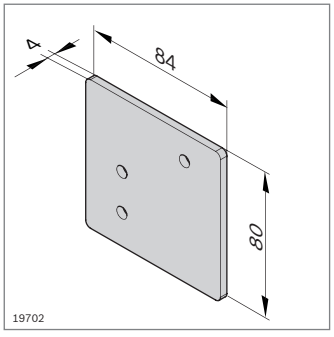
FS5

MLF-M8x12-10.9-VZ

10 M8

Rail holder without stop		No.	FS
	20	**3 842 537 665**	FS5

Material: Steel, galvanized
Accessories: Round tube D28 (p. 2-67)
Scope of delivery: Incl. fastening material (FS)

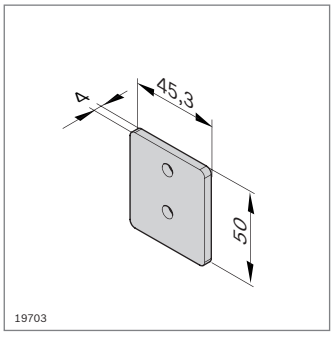


FS6

S6x16-T25

Stop plate with stop		No.	FS
	20	**3 842 537 593**	2xFS6

Material: Steel, galvanized
Scope of delivery: Incl. fastening material (FS)

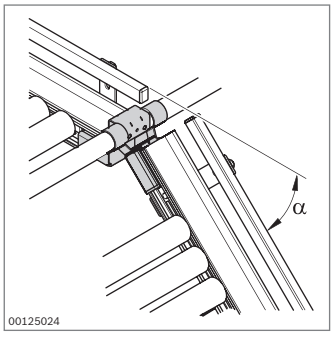


FS6

S6x16-T25

Stop plate without stop		No.	FS
	20	**3 842 537 592**	2xFS6

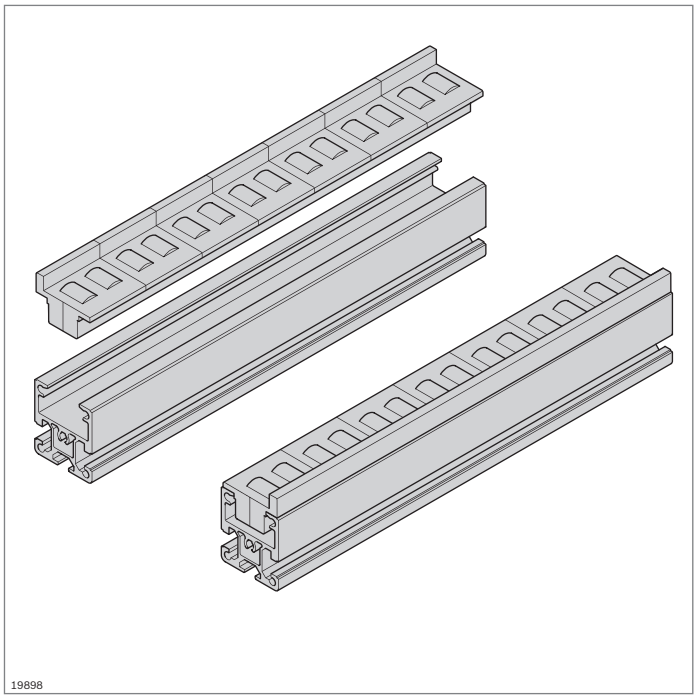
Material: Steel, galvanized
Scope of delivery: Incl. fastening material (FS)



- Flexible bridge with maximum tilt (α_{max}) from horizontal:
  - With round tube D28 (p. 2-67): α_{max} = 40°
  - With strut profile D28x55 (p. 2-68): α_{max} = 30°

Flexible bridge		No.
	20	**3 842 537 911**

Material: Steel, galvanized



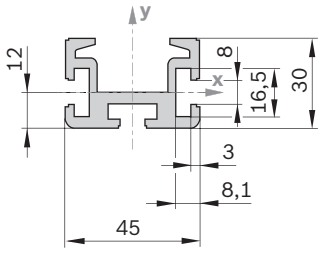
Conveyor track made of section profiles and roller elements

- Economical solution for manual slide sections
- Roller elements can be clipped in

Accessories:
Roller elements (p. 12-15)

SP 2/R

A = 5,23 cm²
I_x = 4,39 cm⁴
I_y = 11,77 cm⁴
W_x = 2,47 cm³
W_y = 5,23 cm³
m = 1,41 kg/m

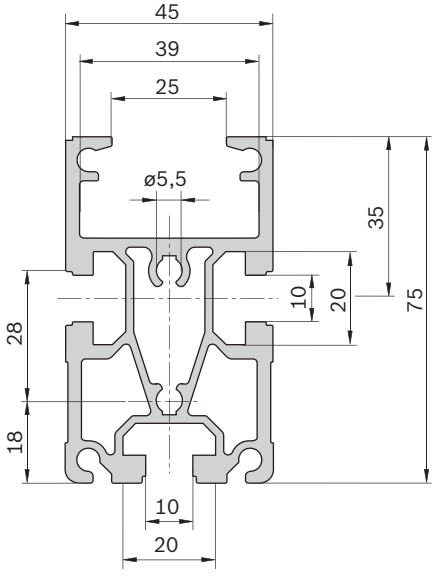


Section profile SP 2/R	L (mm)	No.
	50 ... 6000	**3 842 992 676/L**

Material: Aluminum, natural-colored, anodized

SP 2/B

A = 10,4 cm²
I_x = 49,6 cm⁴
I_y = 25,8 cm⁴
W_x = 12,1 cm³
W_y = 11,5 cm³
m = 2,8 kg/m

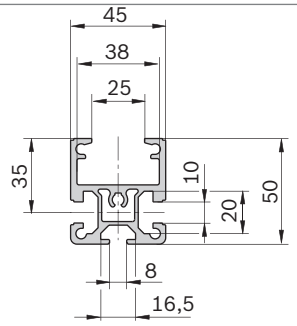


Section profile SP 2/B	Slot	L (mm)	No.
1 pc	10	200...6000	**3 842 992 884/L**
16 pcs	10	6070	**3 842 532 695**

Material: Aluminum, natural-colored, anodized
Accessories: Cross connector QV 2 (p. 12-35)

SP 2/B-50

A = 6,9 cm²
I_x = 46,2 cm⁴
I_y = 16,9 cm⁴
W_x = 5,3 cm³
W_y = 7,5 cm³
m = 1,9 kg/m

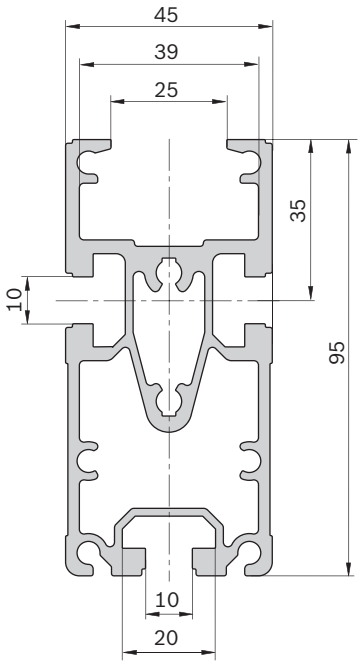


Section profile SP 2/B-50	Slot	L (mm)	No.
1 pc	8 / 10	200...6000	**3 842 992 903/L**
20 pcs	8 / 10	6070	**3 842 532 697**

Material: Aluminum, natural-colored, anodized

SP 2/B-100

A = 11,9 cm²
I_x = 95,1 cm⁴
I_y = 30,4 cm⁴
W_x = 20,0 cm³
W_y = 13,5 cm³
m = 3,2 kg/m

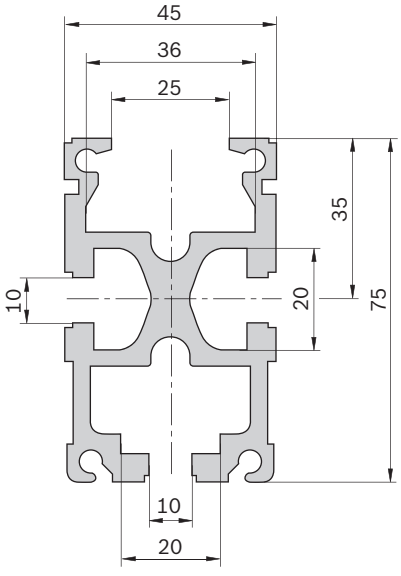


Section profile SP 2/B-100	Slot	L (mm)	No.
1 pc		200...6000	**3 842 993 259/L**
16 pcs	10	6070	**3 842 532 608**

Material: Aluminum, natural-colored, anodized
Accessories: Cross connector QV 2 (p. 12-35)

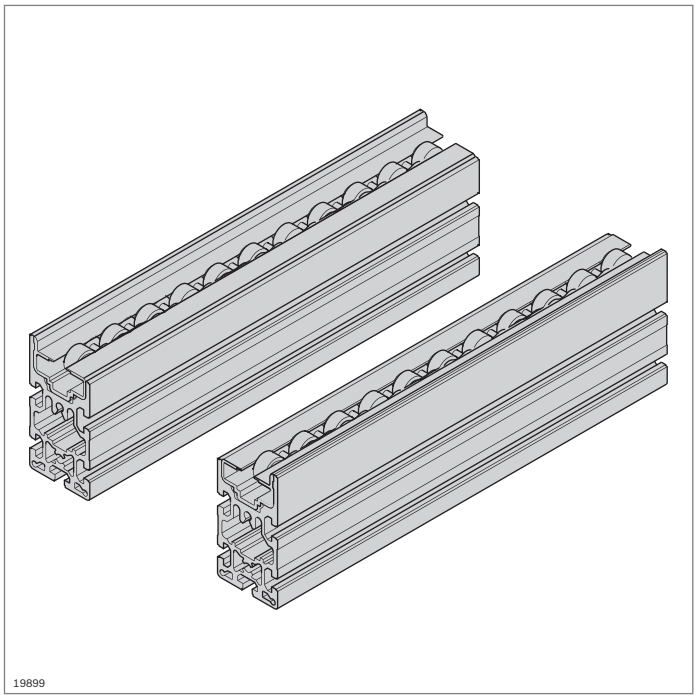
SP 2/BH

A = 12,4 cm²
I_x = 53,7 cm⁴
I_y = 28,6 cm⁴
W_x = 14,0 cm³
W_y = 13,8 cm³
m = 3,3 kg/m



Section profile SP 2/BH	Slot	L (mm)	No.
1 pc	10	200...6000	**3 842 990 409/L**
16 pcs	10	6070	**3 842 532 696**

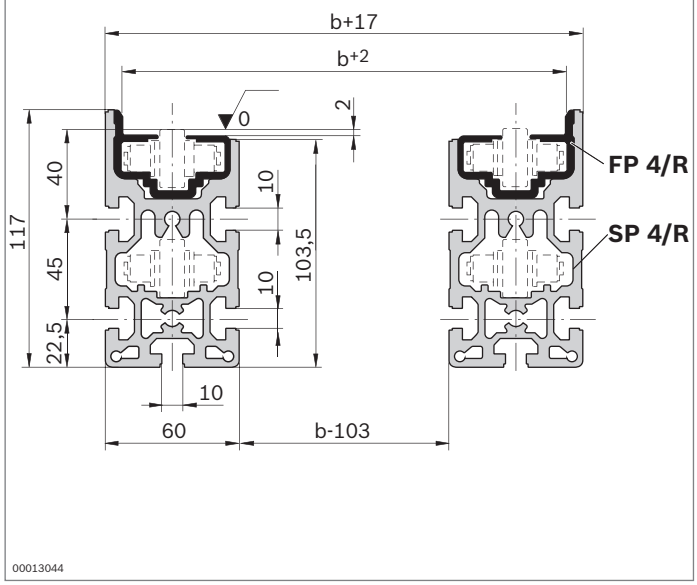
Material: Aluminum, natural-colored, anodized
Accessories: Cross connector QV 2 (p. 12-35)



Conveyor sections made of SP 4/R section profiles and accumulation roller chains

- For constructing manual slide sections with high bearing loads (up to 2.0 kg/cm)
- For applications with and without workpiece pallets
- Low friction
- Steel chain with support wheels made of PA 12

ST 4/R

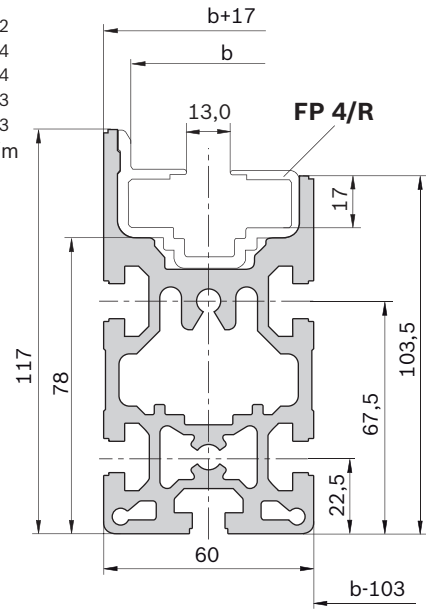


Section ST 4/R	**L** (mm)	**No.**
	200...6000	**3 842 994 839/L**

Material:	Aluminum, natural-colored, anodized Guide profile: PA 12
Scope of delivery:	2x section profile SP 4/R 2x guide profile FP 4/R
Condition on delivery:	Assembled
Accessories:	Accumulation roller chain (p. 12-31) Cross connector QV 4 (p. 12-31)

SP 4/R

A = 26,13 cm²
I_x = 222,0 cm⁴
I_y = 95,5 cm⁴
W_x = 84,86 cm³
W_y = 16,41 cm³
m = 3,5 kg/m

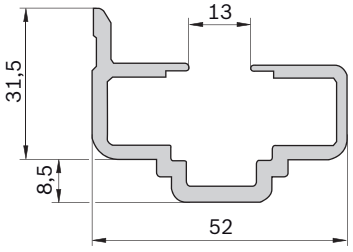


19608

Section profile SP 4/R		L (mm)	No.
10 pcs		6000	**3 842 532 505**

Material: Aluminum, natural-colored, anodized
Accessories: Guide profile FP 4/R
Accumulation roller chain (p. 12-31)
Cross connector QV 4 (p. 12-31)

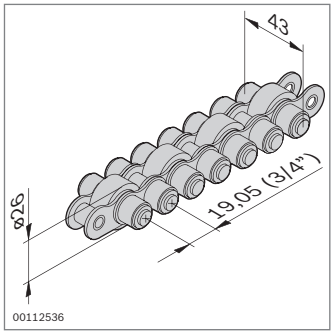
FP 4/R



19610

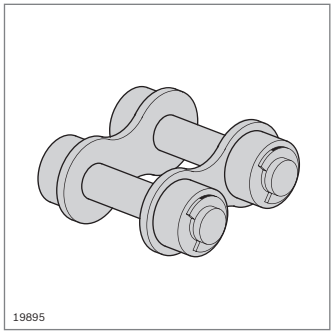
Guide profile FP 4/R		L (mm)	No.
10 pcs		6000	**3 842 532 508**

Material: PA 12 (anti-static)



Accumulation roller chain	**L** (mm)	**No.**
Support wheel: PA 12	5000	**3 842 508 967**

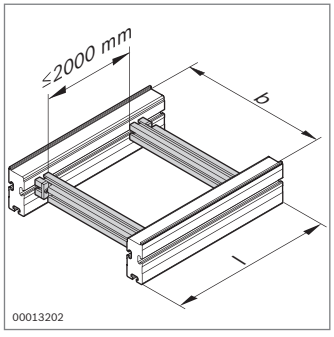
Material:	Accumulation roller chain: steel Support wheel: see ordering table
Scope of delivery:	Incl. master link
Accessories:	Additional master link (**3 842 071 941**)

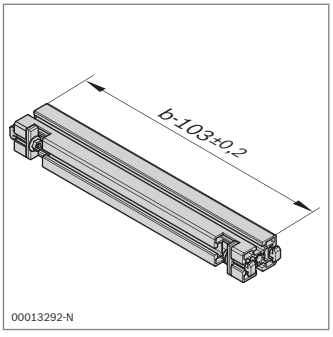


- Master link for accumulation roller chain extension

Master link	**No.**
	3 842 071 941

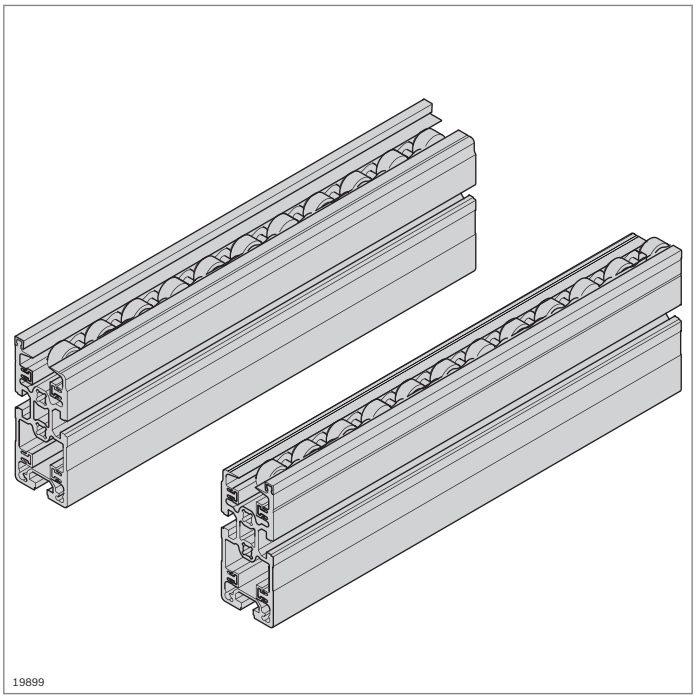
Material:	Steel





- Cross connector QV 4 for connecting two section profiles
- For definition of the track width

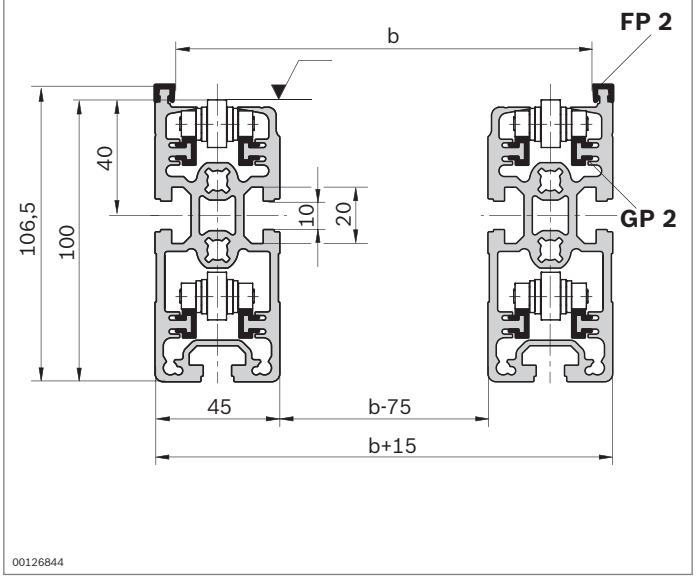
Cross connector QV 4	**b** (mm)	**No.**
	443...1243	**3 842 994 832/b**



Conveyor sections made of SP 2 section profiles and accumulation roller chains

- For constructing manual slide sections with high bearing loads (up to 2.0 kg/cm)
- For applications with and without workpiece pallets
- Accumulation roller chain with and without small parts trap

ST 2/R-100

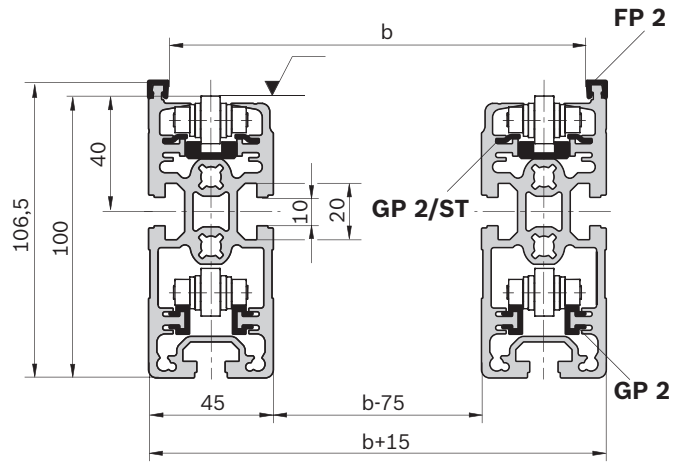


- Customizable section with plastic guide profile

Section ST 2/R-100	ESD	L (mm)	No.
	⏚	60 ... 6000	**3 842 994 889 /L**

Material:	Aluminum, natural-colored, anodized Glide profile, guide profile: PA 12
Scope of delivery:	2x section profile SP 2/R-100 2x guide profile FP 2 8x glide profile GP 2
Condition on delivery:	Assembled
Accessories:	Accumulation roller chain (p. 12-35) Accumulation roller chain with small parts trap (p. 12-35) Cross connector QV 2, QV 2-H (p. 12-35)

ST 2/R-100-ST



Section ST 2/R-100 ST	ESD	L (mm)	No.
	⏚	60 ... 6000	**3 842 994 907/L**

Material: Aluminum, natural-colored, anodized
Glide profile: steel
Guide profile: PA 12
Accumulation roller chain guide profile: PE

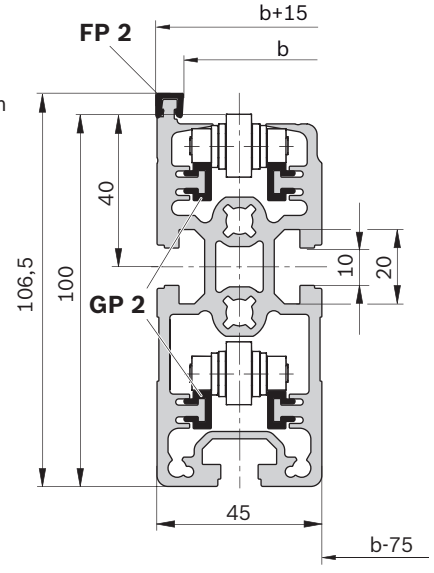
Scope of delivery:
2x section profile SP 2/R-100
2x guide profile FP 2
4x glide profile GP 2
4x glide profile GP 2/ST
2x accumulation roller chain guide profile

Condition on delivery: Assembled

Accessories:
Accumulation roller chain (p. 12-35)
Accumulation roller chain with small parts trap (p. 12-35)
Cross connector QV 2, QV 2-H (p. 12-35)

SP 2/R-100

A = 16,4 cm²
I_x = 144,0 cm⁴
I_y = 40,1 cm⁴
W_x = 27,7 cm³
W_y = 17,8 cm³
m = 4,4 kg/m



Section profile SP 2/R-100	L (mm)	No.
16 pcs	6070	**3 842 529 931**

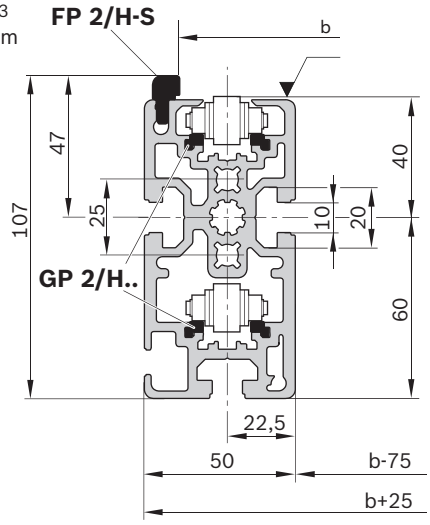
Material: Aluminum, natural-colored, anodized

Accessories:
Guide and glide profile PA (p. 12-34)
Guide and glide profile ST (p. 12-34)

12

SP 2/R-H

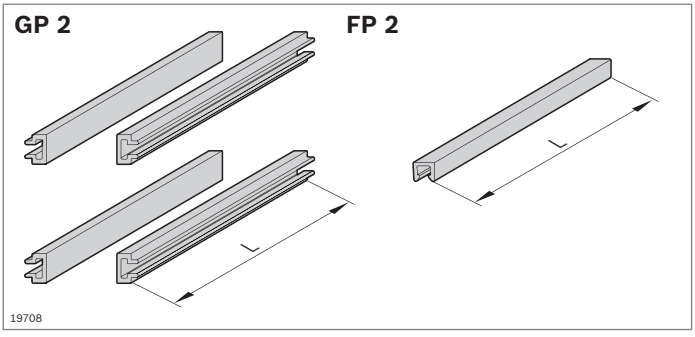
A = 19,0 cm²
I_x = 155,6 cm⁴
I_y = 51,3 cm⁴
W_x = 31,6 cm³
W_y = 18,8 cm³
m = 5,2 kg/m



20802

Section profile SP 2/R-H		L (mm)	No.
12 pcs		6070	**3 842 536 792**

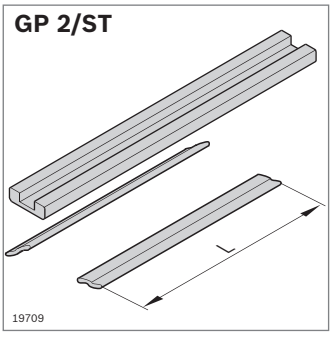
Material: Aluminum, natural-colored, anodized
Accessories: Guide profile FP 2/H-ST
Glide profile GP 2/H-KST
Glide profile GP 2/H-ST



19708

Guide and glide profile ST	ESD	No.
	⏚	**3 842 529 933**

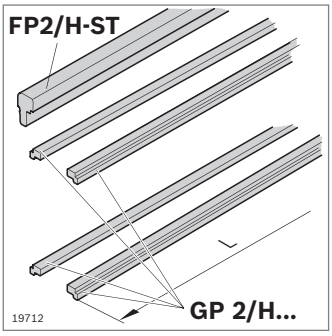
Material: PA 12 (anti-static)
Scope of delivery: 64x glide profile GP 2 (L = 6000 mm)
16x guide profile FP 2 (L = 6000 mm)



19709

Guide and glide profile ST	ESD	No.
	⏚	**3 842 532 676**

Material: GP 2/ST: steel, corrosion-resistant
Accumulation roller chain guide profile: PE
Scope of delivery: 32x glide profile GP 2/ST (L = 3000 mm)
24x accumulation roller chain guide profile (L = 2000 mm)



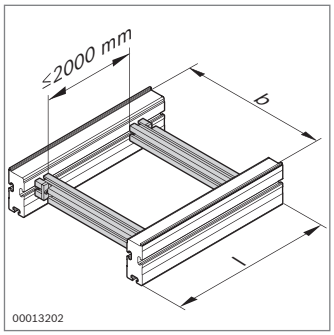
19712

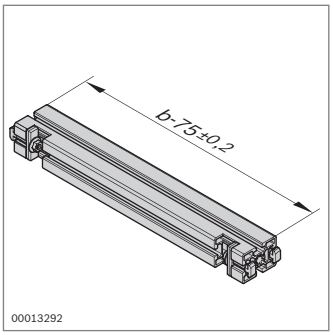
Guide profile			L (mm)	ESD	No.
FP 2/H-ST	24 pcs		3000	⏚	**3 842 537 890**

Material: Steel, corrosion-resistant

Glide profiles			L (mm)	ESD	No.
GP 2/H-ST	48 pcs		3000	⏚	**3 842 537 888**
GP 2/H-KST	48 pcs		3000	⏚	**3 842 537 889**

Material: H-KST: PA (anti-static)
H-ST: steel, corrosion-resistant

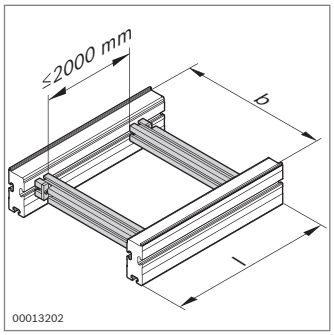


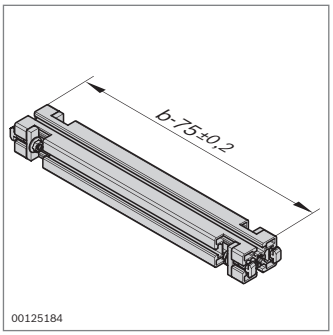


- Cross connector QV 2 for connecting two section profiles
- For definition of the track width

Cross connector QV 2	**b** (mm)	**No.**
	160...1040	**3 842 994 635/b**

Material: Aluminum, natural-colored, anodized
Fastening material: steel
Scope of delivery: Strut profile 45x60, 2x cross connector (p. 3-56)

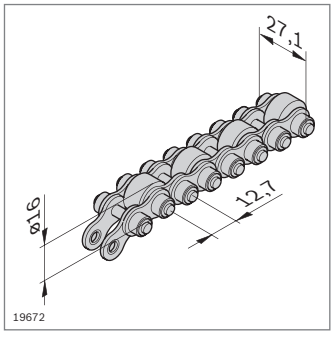


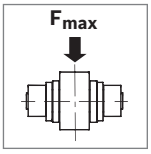


- Cross connector QV 2-H for connecting two section profiles
- For heavy applications
- For definition of the track width

Cross connector QV 2-H	**b** (mm)	**No.**
	160...1040	**3 842 993 052/b**

Material: Aluminum, natural-colored, anodized
Fastening material: steel
Scope of delivery: Strut profile 45x60, 4x cross connector (p. 3-56)

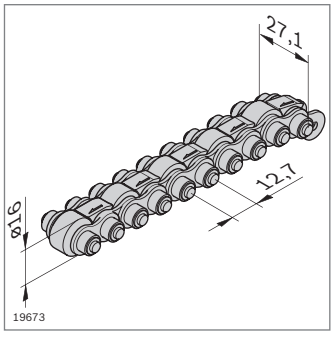


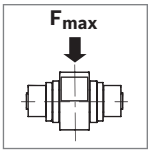


Accumulation roller chain	F_{max} (kg/cm)	**L** (mm)	**No.**
Support wheel: PA 12	1.5	12000	**3 842 523 918**
Support wheel: steel	2.0[1]/1.5[2]	12000	**3 842 530 864**

[1] When using glide profile GP 2/ST
[2] When using glide profile GP 2

Material: Accumulation roller chain: steel
See ordering table for support wheel
Scope of delivery: Incl. master link
Accessories: Additional master link (**3 842 530 417**)

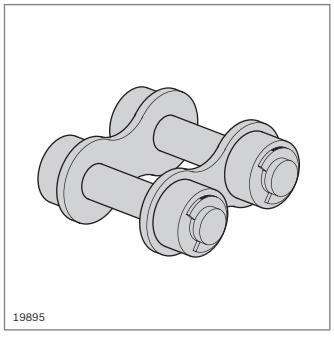




Accumulation roller chain with small parts trap	F_{max} (kg/cm)	**L** (mm)	**No.**
Support wheel: PA 12	1.5	12000	**3 842 536 268**
Support wheel: steel	2.0[1]/1.5[2]	12000	**3 842 536 270**

[1] When using glide profile GP 2/ST
[2] When using glide profile GP 2

Material: Accumulation roller chain: steel
See ordering table for support wheel
Scope of delivery: Incl. master link
Accessories: Additional master link (**3 842 530 417**)

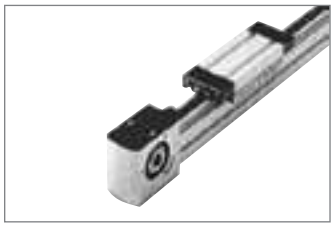


- Master link for accumulation roller chain extension

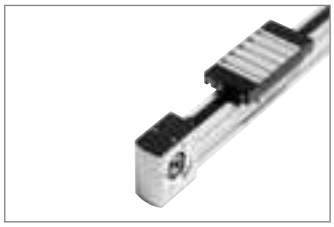
Master link	**No.**
	3 842 530 417

Material: Steel

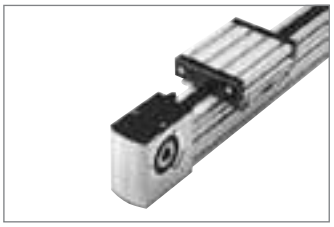
Linear guides



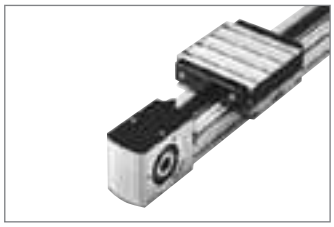
Cam roller guides LF6S
(p. 13-6)



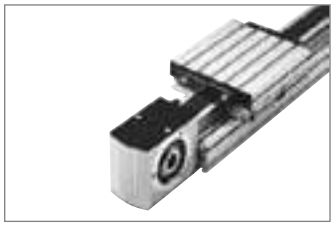
Cam roller guides LF6C
(p. 13-11)



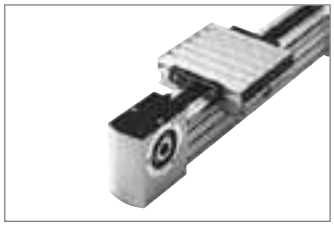
Cam roller guides LF12S
(p. 13-16)



Cam roller guides LF12C
(p. 13-23)



Cam roller guides LF20S
(p. 13-30)



Cam roller guides LF20C
(p. 13-37)



Servomotors (p. 13-45)



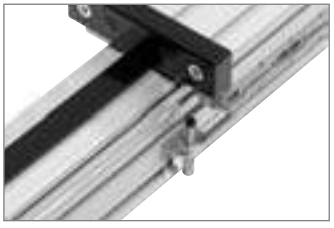
Gears (p. 13-47)



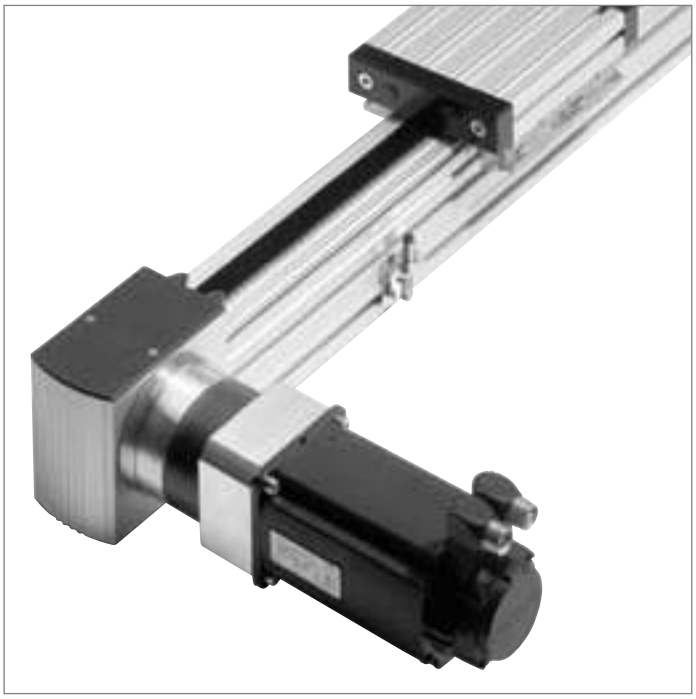
Flanges (p. 13-49)



Center shafts, synchronous
shafts (p. 13-51)



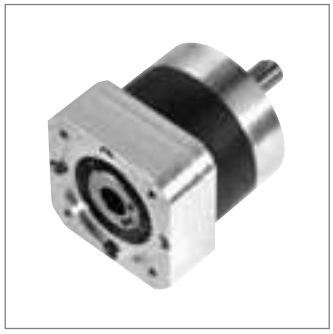
Switches (p. 13-55)



Linear guides

- For constructing linear guides based on cam roller guides
- Cam roller guides are suitable for applications with high speeds and medium loads, in particular for the construction of handling devices, feed systems, guides in work machines, and many other applications
- Fully pre-assembled in any required length or as individual components for assembly on site
- Without drive or with toothed-belt drive for attaching gears and motors
- All drive components for linear guides from a single source:
  - Mounting flanges
  - Matching gears
  - Motors
  - Position and limit switches





Gear with flange

- Matching gears for every size
- Simple mounting on the drive head with a matching flange





Motors from the Rexroth product line

- Servomotors perfectly matched to applications with our linear guides
- Two motors available for each size

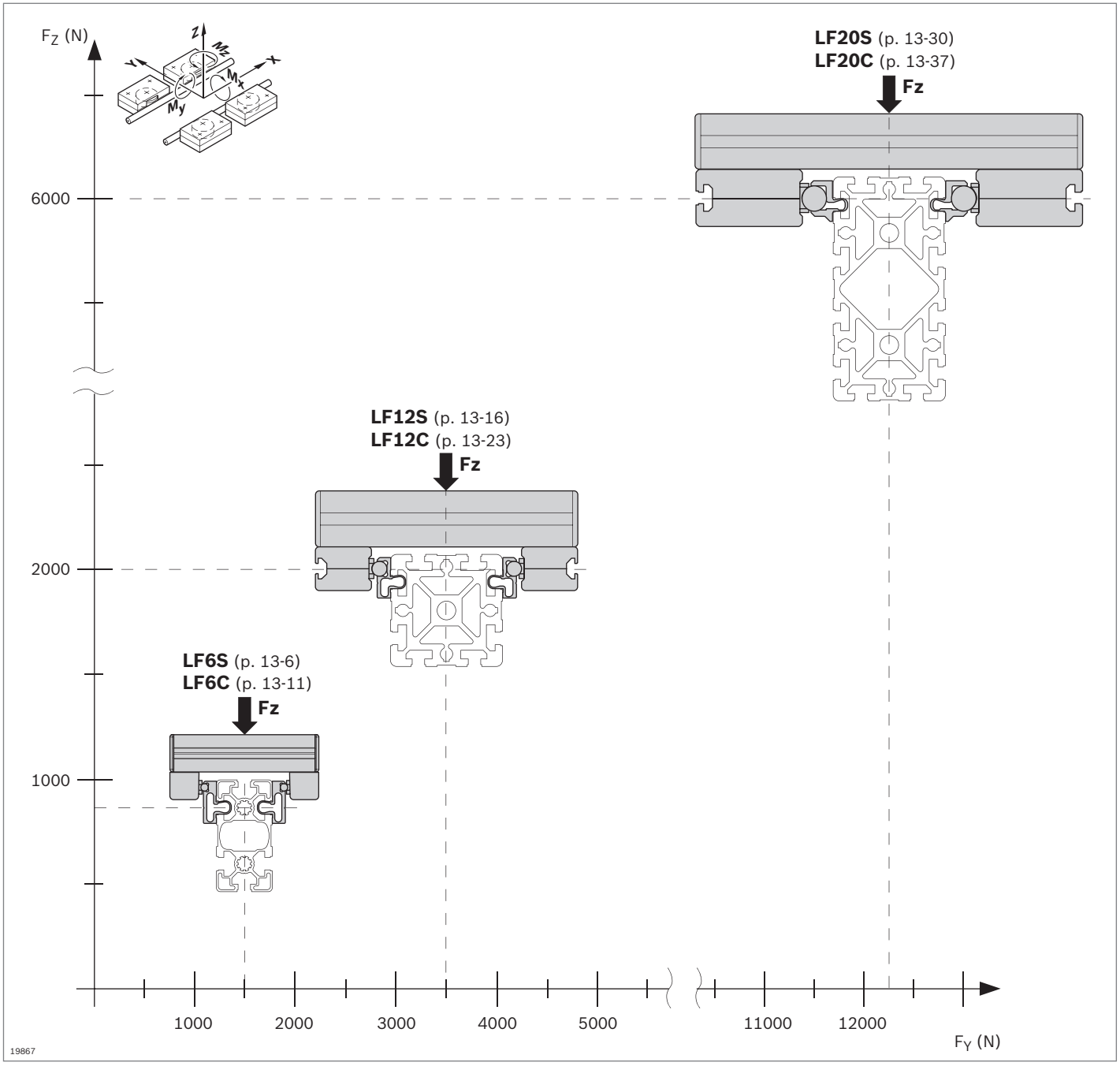
Switch unit

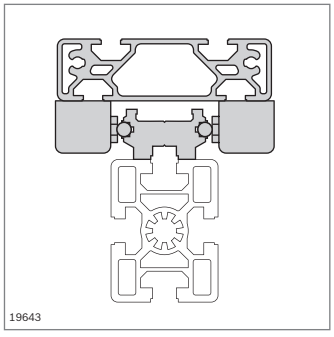
- Mechanical and inductive switches for safety and position inquiries
- With holder for fast, simple attachment to support profile

Actuating elements

- To actuate the switches, adapted to the specific linear guide
- Fastening to belt connector

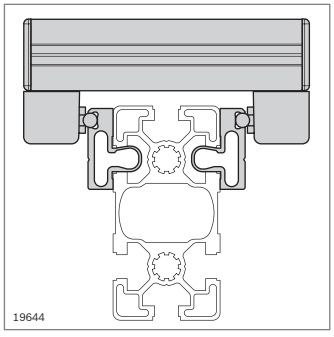
Linear guides – sizes, designs, and loads





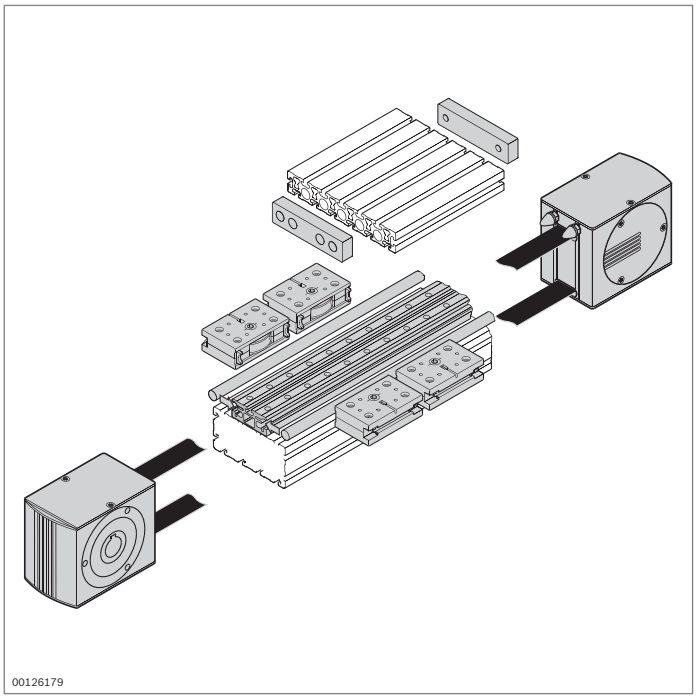
LF...S

- Compact construction
- Fixed track width
- v_{max} = 5 m/s



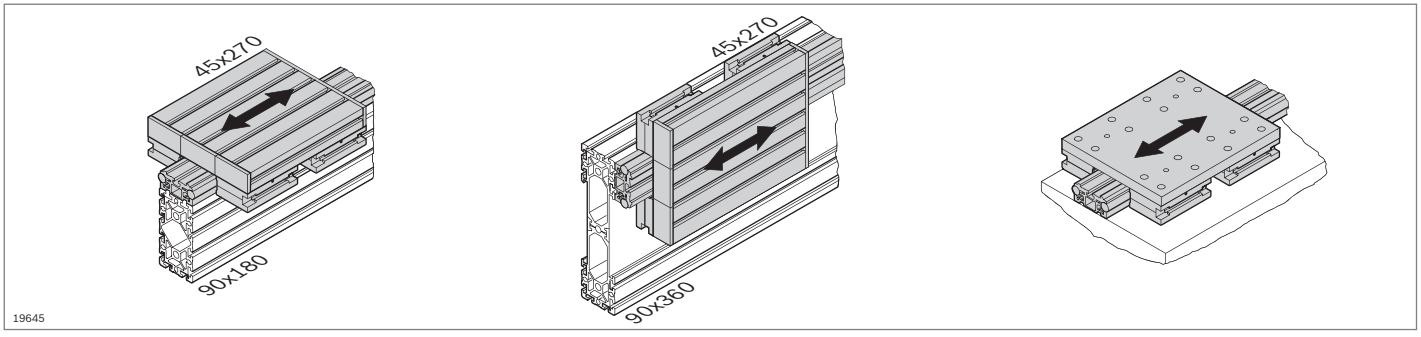
LF...C

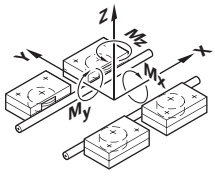
- Freely selectable track width for higher moments
- v_{max} = 5 m/s



Cam roller guides LF...S

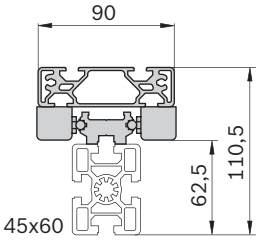
- Cam roller guide LF...S with fixed track widths
- Guide rail made of aluminum with hardened and polished VA guide rods
- Simple mounting on strut profile or directly on flat surface, e.g. on a machine
- High precision, accuracy of size, and torsional rigidity
- Lighter and more economical than VA guide rods
- Light trolley with resistance against torsion
- Freely selectable trolley lengths
- Freely selectable stroke lengths possible
- High permissible speed





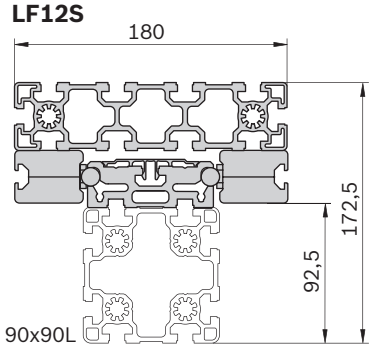
The support profiles shown here are intended as examples

LF6S



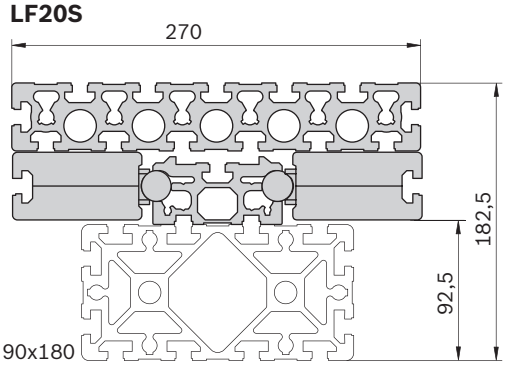
$F_{y\,max}$ = 1400 N
$F_{z\,max}$ = 850 N
$M_{x\,max}$ = 13,6 Nm
v_{max} = 5 m/s

LF12S



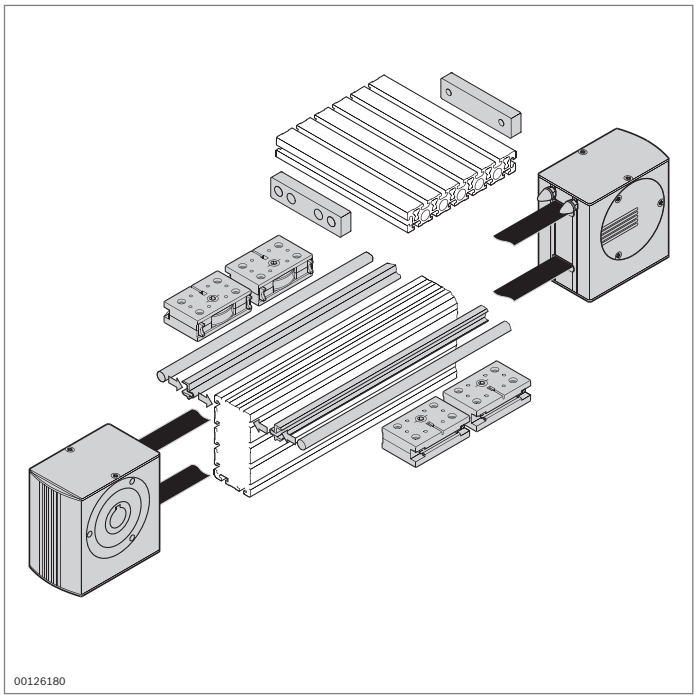
$F_{y\,max}$ = 3500 N
$F_{z\,max}$ = 2000 N
$M_{x\,max}$ = 78 Nm
v_{max} = 5 m/s

LF20S



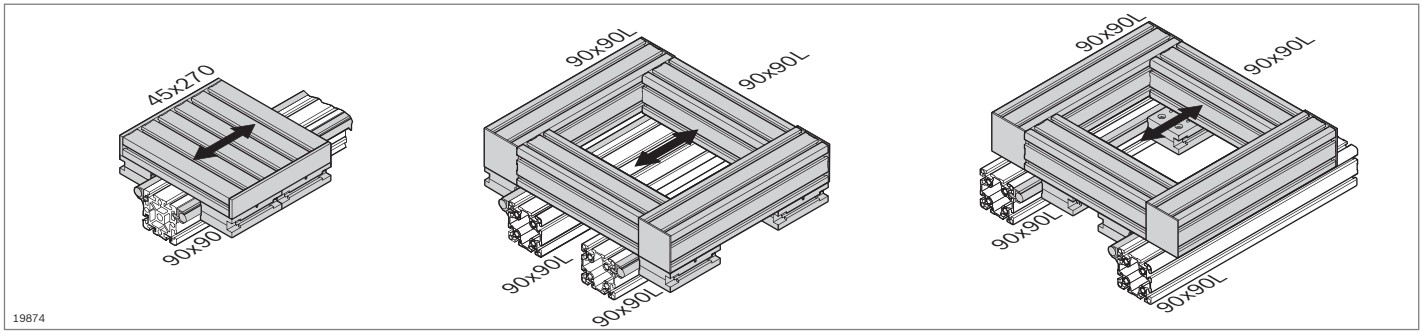
$F_{y\,max}$ = 12500 N
$F_{z\,max}$ = 6000 N
$M_{x\,max}$ = 240 Nm
v_{max} = 5 m/s

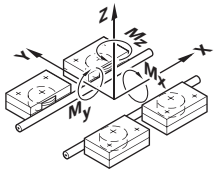
19646



Cam roller guides LF...C

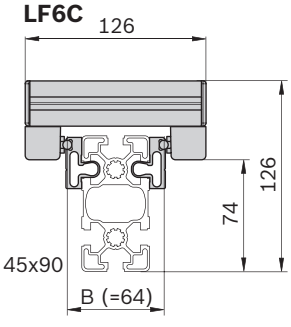
- Cam roller guide LF...C for free choice of track widths and large track widths
- Clamping profile made of aluminum with hardened and polished VA guide rods
- Easy assembly by clipping the clamping profile into the slots of any Rexroth profile with 10 mm slot
- Optimally adjustable to loads
- Higher moments due to a C construction and free choice of track width
- Light trolley with resistance against torsion
- Freely selectable runner block lengths and widths
- Freely selectable stroke lengths possible
- High permissible speed





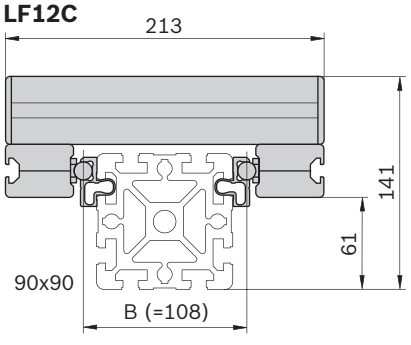
The support profiles shown here are intended as examples

LF6C



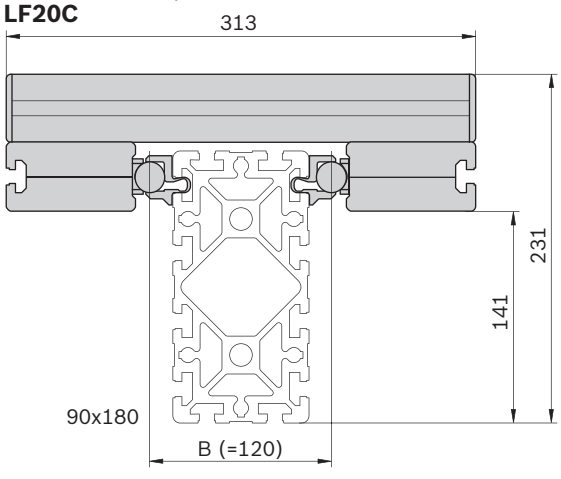
$F_{y\,max}$ = 1400 N
$F_{z\,max}$ = 850 N
$M_{x\,max}$ = 0,4 x B Nm
$M_{x\,max}$ = 25,6 Nm (B=64mm)
v_{max} = 5 m/s

LF12C



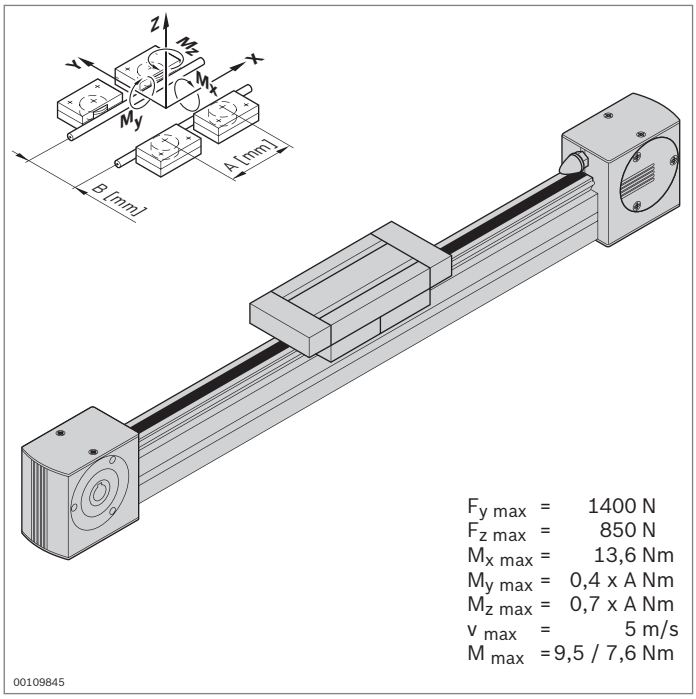
$F_{y\,max}$ = 3500 N
$F_{z\,max}$ = 2000 N
$M_{x\,max}$ = 1,0 xB Nm
$M_{x\,max}$ = 108 Nm (B=108mm)
v_{max} = 5 m/s

LF20C



$F_{y\,max}$ = 12500 N
$F_{z\,max}$ = 6000 N
$M_{x\,max}$ = 3,0 x B Nm
$M_{x\,max}$ = 360 Nm (B=120 mm)
v_{max} = 5 m/s

19647



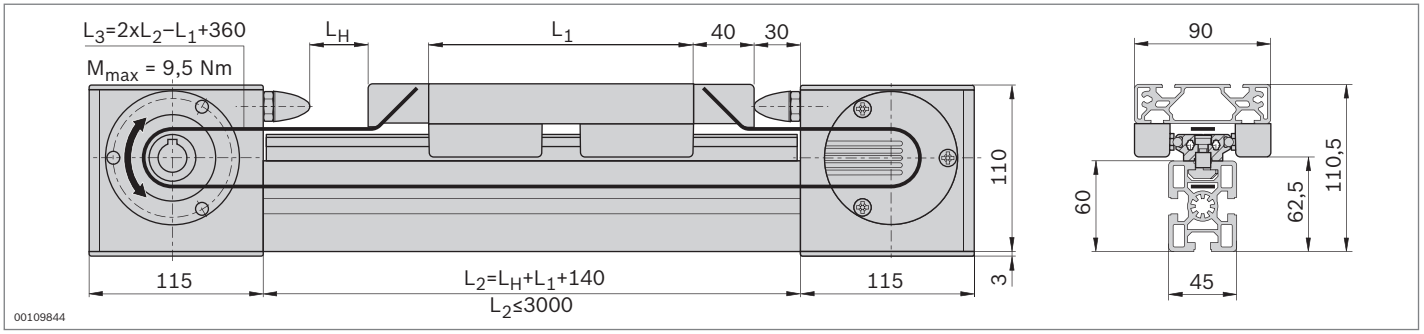
Cam roller guide LF6S – complete axis



- Fully assembled cam roller guide
- Stroke and trolley length can be individually selected
- Rail profile mounted on strut profile 45x60
- Including toothed belt drive; additional notes on the drive concept (p. 13-44)

Accessories:

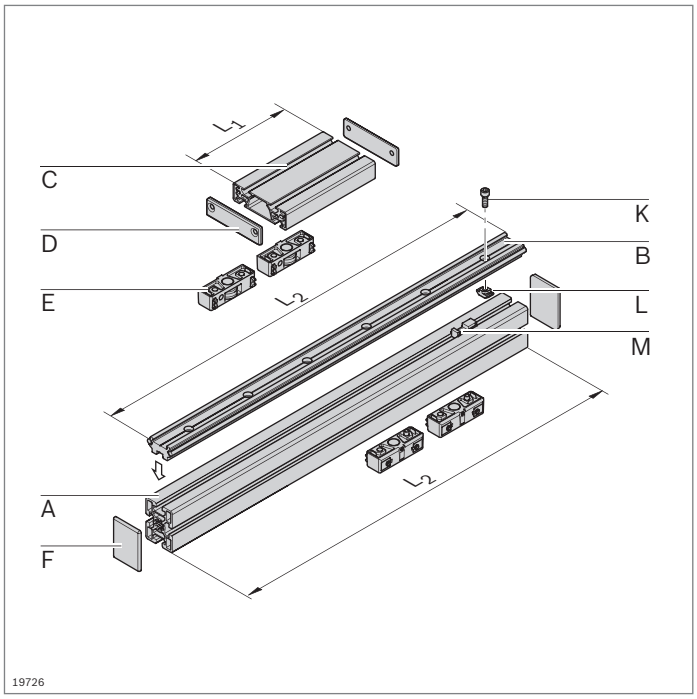
- MSK servomotor (p. 13-45)
- LF6 gear (p. 13-47)
- LF6 flange (p. 13-49)
- Switch unit (p. 13-53)
- LF6 actuating elements (p. 13-54)
- For information on controls, see page 13-48 and the IndraDrive catalog **R911308428**



Technical data

See page 13-57 for layout notes

Complete axis LF6S	L_H/L_1 (mm)	No.
	L_1+80 ≤ L_H ≤ 2710 150 ≤ L_1 ≤ 1000	**3 842 998 495/L_H/L_1**



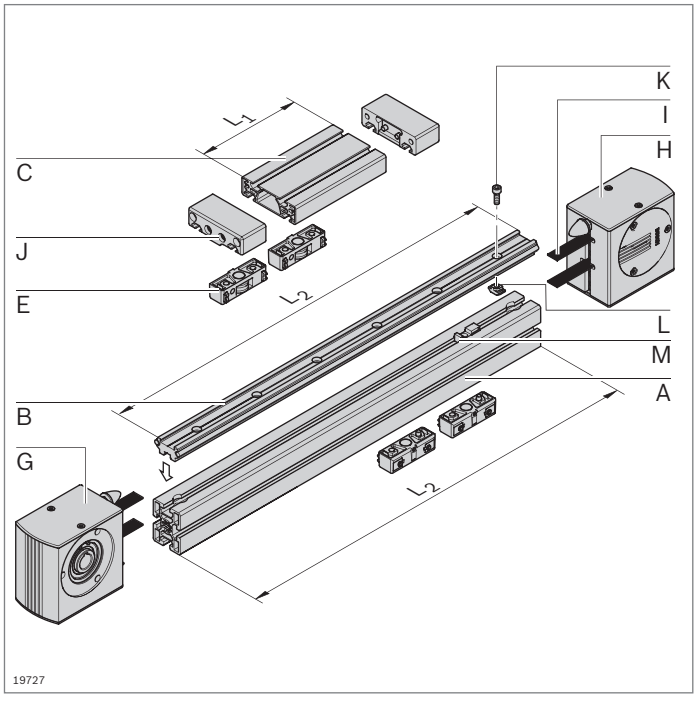
Cam roller guide LF6S – components

▶ Components for the individual assembly of cam roller guides, with or without drive

Parts list for cam roller guide LF6S without drive

Component		No.	Qty.	Page
A	Profile 45x60 ▭	**3 842 990 570/L_2**	1	2-39
B	Guide profile LF6S	**3 842 993 966/L_2**	1	13-8
C	Trolley profile LF6S	**3 842 993 061/L_1**	1	13-8
D	Cap LF6S	**3 842 535 645**	2	13-9
E	Guide bearing LF6	**3 842 535 662**	4	13-8
F	Cap 45x60	**3 842 515 122**	2	2-39
K	Cylinder screw M6x20 – DIN7984		n[1)]	
L	T-nut M6, 10 mm slot	**3 842 530 285**	n[1)]	3-4
M	Sliding block	**3 842 146 877**	n[1)]	13-8

[1)] See page 13-8 for identification

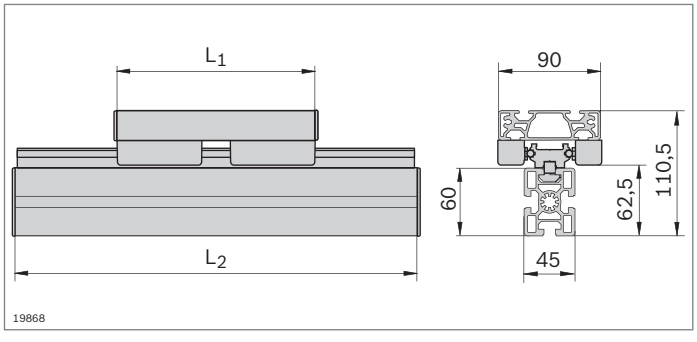


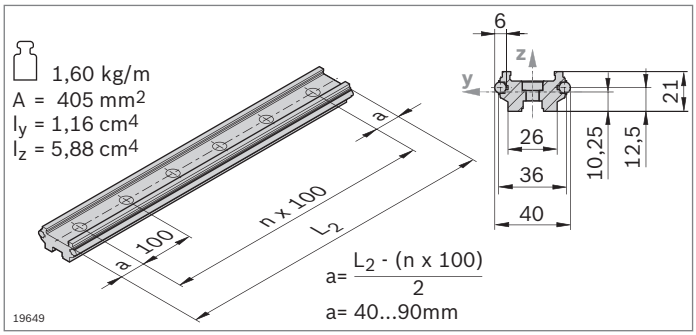
Parts list for cam roller guide LF6S with drive

Component		No.	Qty.	Page
A	Profile 45x60 LF▭LF	**3 842 993 085/L_2**	1	2-39
B	Guide profile LF6S	**3 842 993 966/L_2**	1	13-8
C	Trolley profile LF6S	**3 842 993 061/L_1**	1	13-8
E	Guide bearing LF6	**3 842 535 662**	4	13-8
G	Drive head LF6S	**3 842 526 410**	1	13-9
H	Return head LF6S	**3 842 526 411**	1	13-10
I	Toothed belt LF6S	**3 842 994 659/L_3[1)]**	1	13-10
J	Belt connector LF6S	**3 842 535 682**	2	13-10
K	Cylinder screw M6x20 – DIN7984		n[2)]	
L	T-nut M6, 10 mm slot	**3 842 530 285**	n[2)]	3-4
M	Sliding block	**3 842 146 877**	n[2)]	13-8

[1)] $L_3 = 2xL_2 - L_1 + 360$

[2)] See page 13-8 for identification

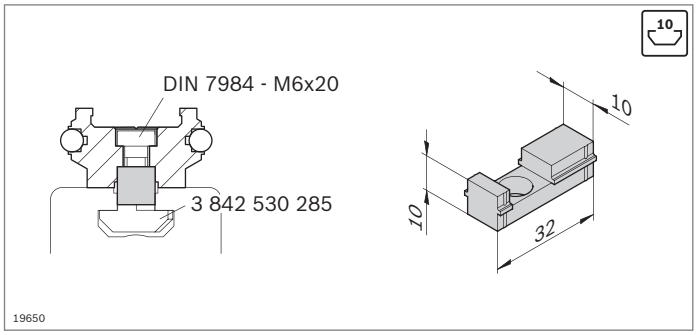




- Guide profile LF6S with integrated guide rods
- Mounting on MGE strut profiles with 10 mm slot or directly on a flat surface

Guide profile		L_2 (mm)	No.
LF6S	1 pc	150 ... 3000	**3 842 993 966/L_2**
	10 pcs	3000	**3 842 539 412**

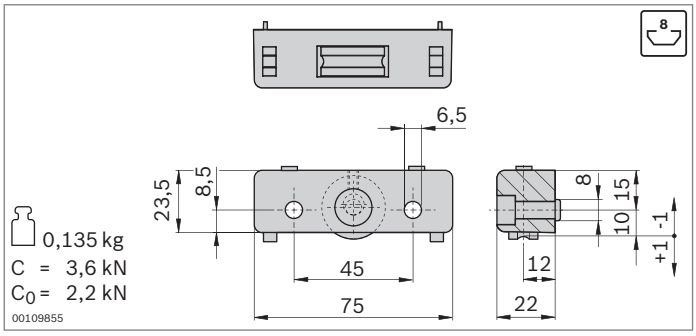
Material:	Guide profile: aluminum, anodized Guide rod: solid shaft VA, induction hardened, polished
Condition on delivery:	Ungreased guide rods; greasing according to assembly instructions 3 842 527 226
Required accessories:	Cylinder screw DIN 7984 – M6x20 T-nut M6, 10 mm slot, **3 842 530 285** (p. 3-4)



- Sliding block as a centering aid for mounting the guide profile in a 10 mm profile slot

Sliding block		No.
	50	**3 842 146 877**

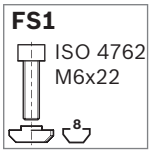
Material:	PA, black

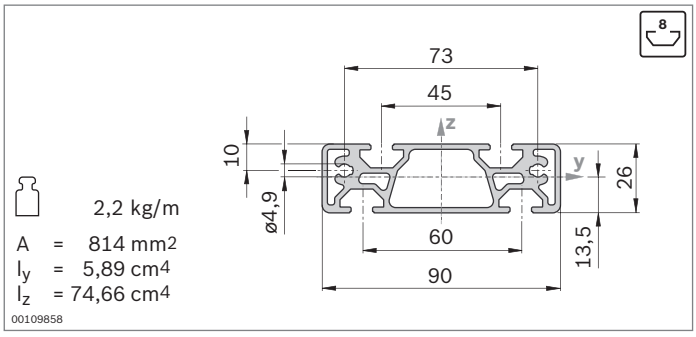


- Guide bearing for trolley construction
- Guiding via guide rod
- Rollers with ball bearings, permanently lubricated
- Lubricating felts with guide rod lubrication reservoir
- Secure roller adjustment via eccentric bolts

Guide bearing		No.	FS
LF6	2	**3 842 535 662**	2xFS1

Material:	Housing: diecast aluminum Roller: steel, hardened, polished
Scope of delivery:	Incl. fastening material (FS)
Condition on delivery:	Ungreased lubricating felts; greasing according to Assembly instructions **3 842 527 226**

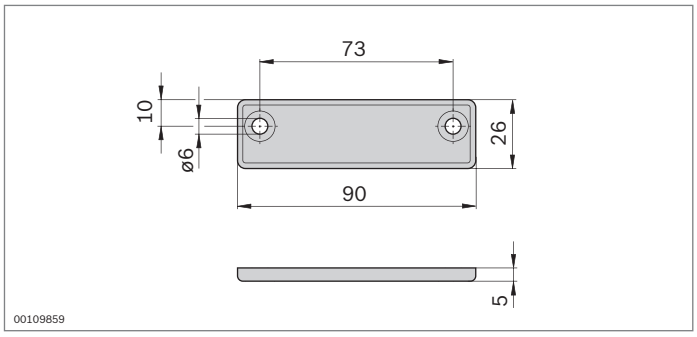




- Trolley profile for the construction of trolley LF6S

Trolley profile	L_1 (mm)	No.
LF6S	150 ... 3000	**3 842 993 061/L_1**

Material:	Aluminum, anodized

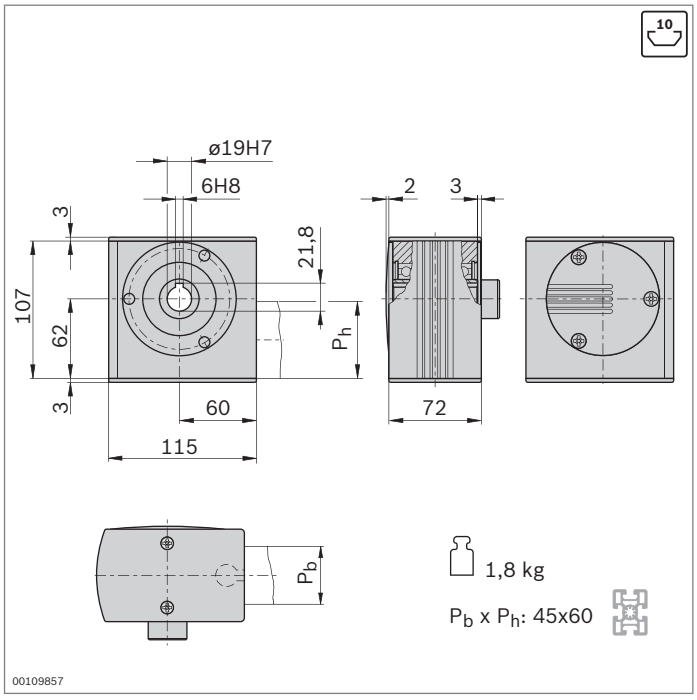


- Cap for trolley profile LF6S
- For use on trolleys not driven by a toothed belt

Cap		No.	FS
LF6S	2	**3 842 535 645**	2xFS2
Material:	PA, black		

FS2

ISO 7050
5,5x19



- Drive head for drive torque transfer to a toothed belt
- To directly fit a motor or (in connection with a center shaft) a hollow shaft gear or a coupling
- Mounting with longitudinal end connector directly to profile 45x60
- Profile finishing: LF blind hole drilling for longitudinal end connector

Drive head	No.	FS
LF6S	**3 842 526 410**	2xFS3, FS4

Material:	Aluminum, anodized Hollow shaft: steel, galvanized Caps: PA, black
Scope of delivery:	Including fastening material (FS), caps
Accessories:	Flanges (p. 13-49), gears (p. 13-47), servomotors (p. 13-45)

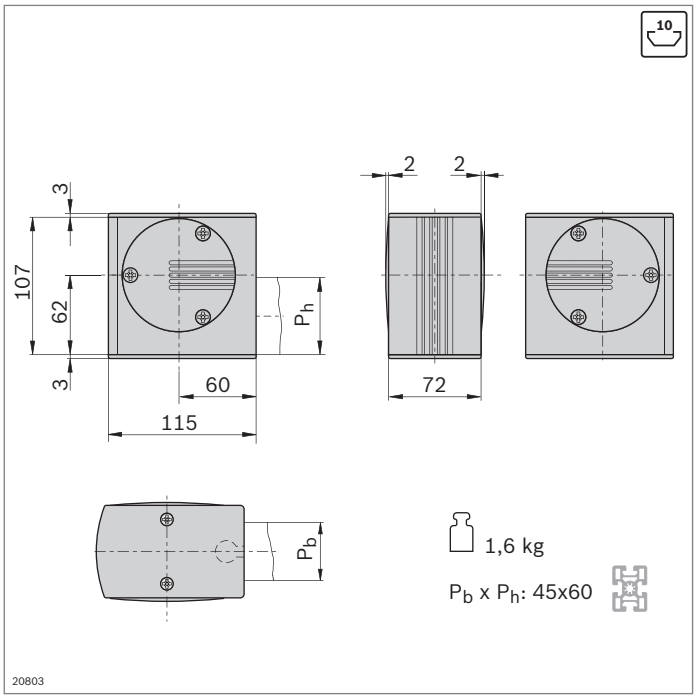
FS3

ISO 7380
M8x40

FS4

DIN 439
M8

13

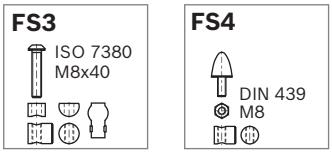


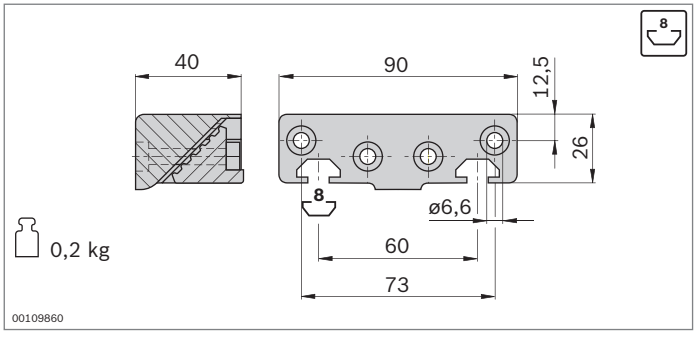
- Return head to tension the toothed belt and change its direction
- Mounting with longitudinal end connector directly to profile
- Profile finishing: LF blind hole drilling for longitudinal end connector

Return head	No.	FS
LF6S	**3 842 526 411**	2xFS3, FS4

Material: Aluminum, anodized
Hollow shaft: steel, galvanized
Caps: PA, black

Scope of delivery: Including fastening material (FS), caps



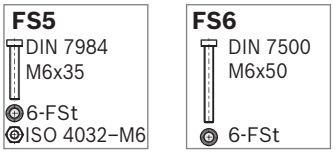


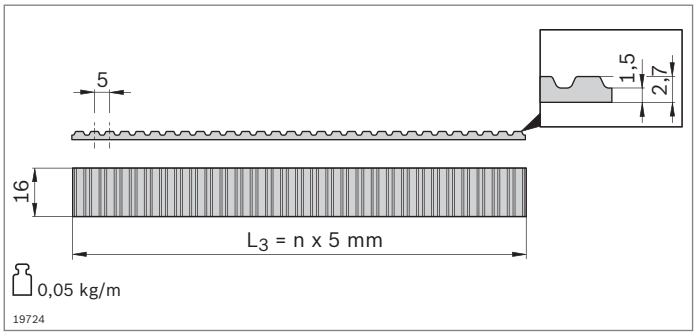
- Belt connector to fix the toothed belt at the end of the trolley
- All connecting parts included for mounting at the trolley profile LF6S

Belt connector		No.	FS
LF6S	2	**3 842 535 682**	2xFS5, 2xFS6

Material: Aluminum, painted black

Scope of delivery: Incl. fastening material (FS)



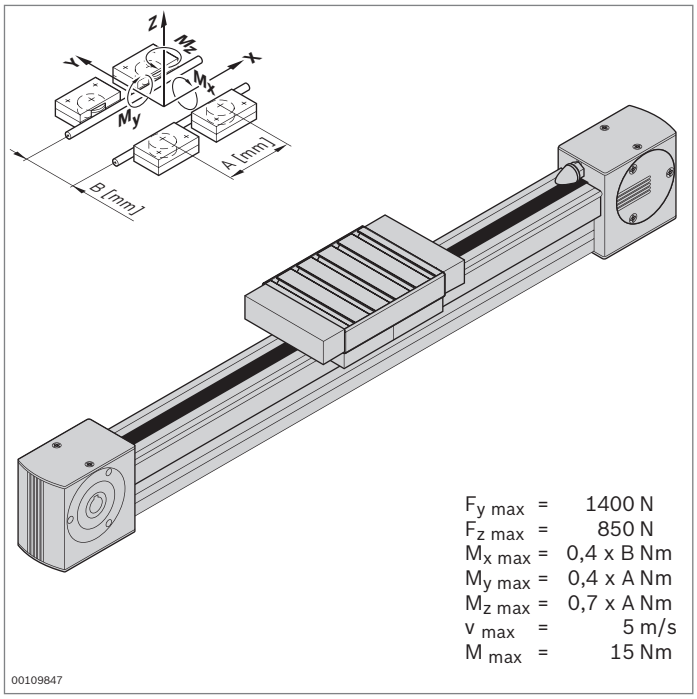


- Toothed belt as a trolley drive
- Pitch: AT5

Toothed belt	L_3 (mm)	No.
LF6S	300 ... 50000	**3 842 994 659/L_3 [1)]**
	50000	**3 842 513 646**

[1)] $L_3 = 2xL_2 - L_1 + 360$

Material: PU with embedded steel wires



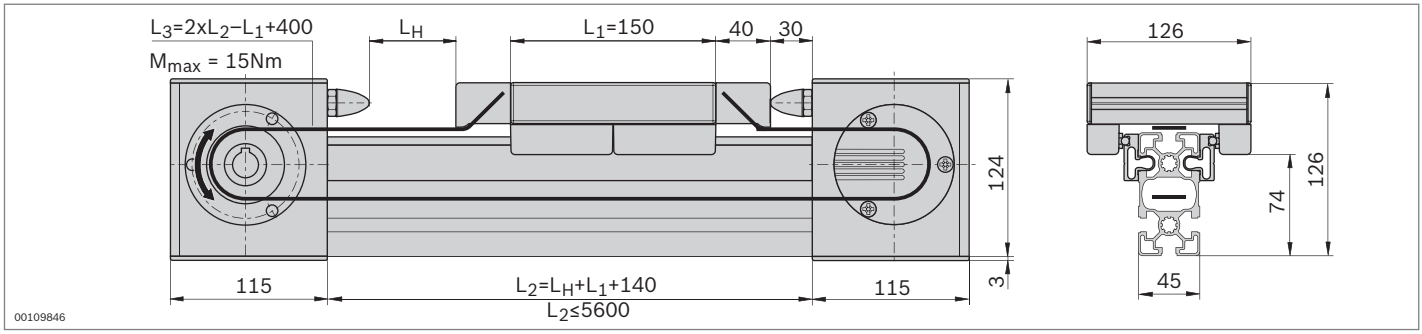
Cam roller guide LF6C – complete axis



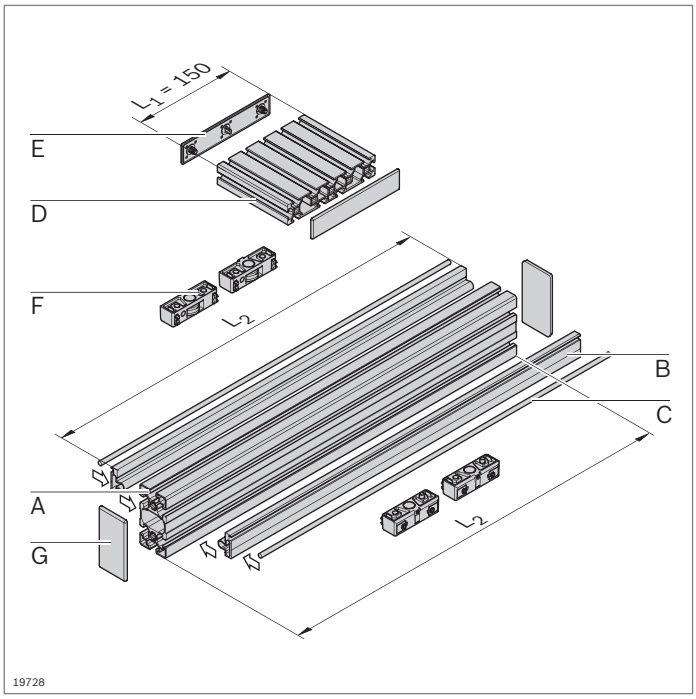
- Fully assembled cam roller guide
- Stroke can be individually selected
- Clamping profile clipped into strut profile 45x90L
- Including toothed belt drive; additional notes on the drive concept (p. 13-44)

Accessories:

- MSK servomotor (p. 13-45)
- LF6 gear (p. 13-47)
- LF6 flange (p. 13-49)
- Switch unit (p. 13-53)
- LF6 actuating elements (p. 13-54)
- For information on controls, see page 13-48 and the IndraDrive catalog **R911308428**



Complete axis	L_H (mm)	No.
LF6C	50 ... 5310	**3 842 998 496/L_H**

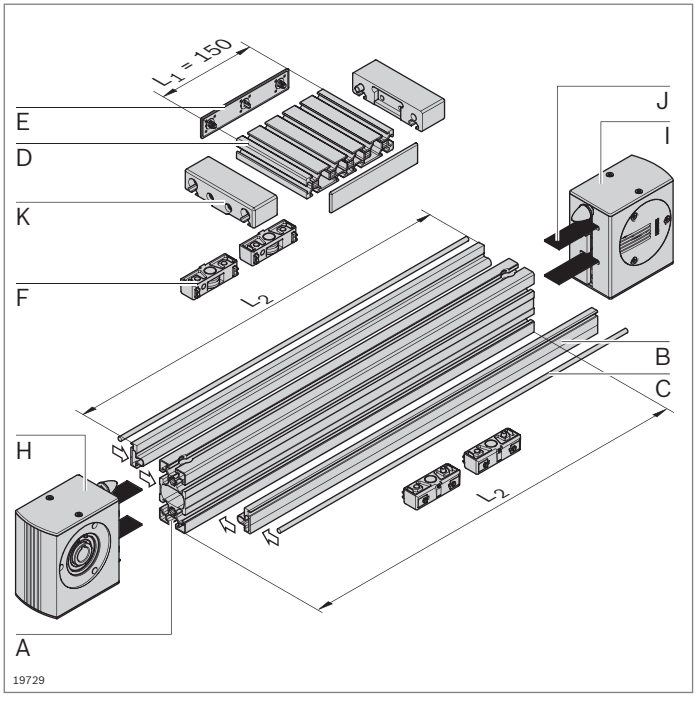


Cam roller guide LF6C – components

- Components for the individual assembly of cam roller guides, with or without drive

Parts list for cam roller guide LF6C without drive

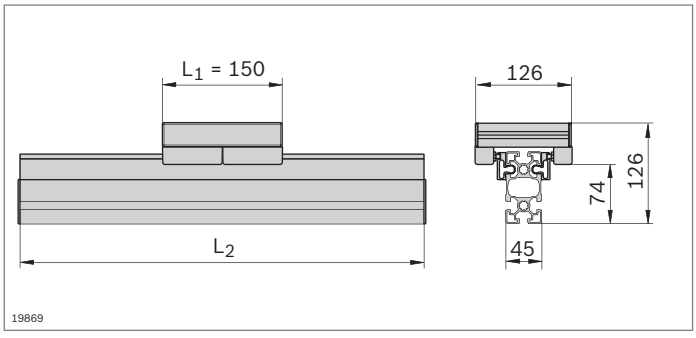
Component		No.	Qty.	Page
A	Profile 45x90L	**3 842 992 432/L_2**	1	2-40
B	Clamping profile LF6C	**3 842 992 925/L_2**	2	13-13
C	Guide rod LF6	**3 842 993 967/L_2**	2	13-13
D	Trolley profile LF6C	**3 842 993 952/ 120 mm**	1	13-13
E	Cap LF6C	**3 842 539 120**	2	13-14
f	Guide bearing LF6	**3 842 535 662**	4	13-13
G	Cap 45x90	**3 842 511 783**	2	2-40

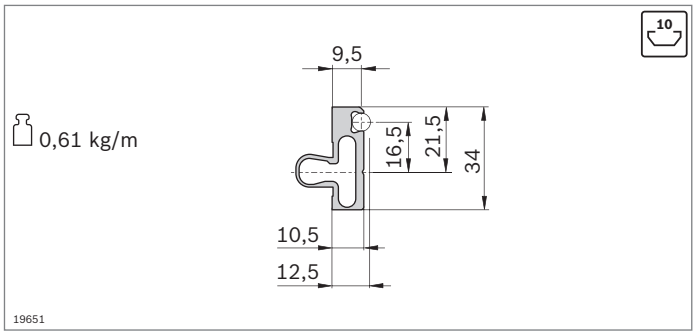


Parts list for cam roller guide LF6C with drive

Component		No.	Qty.	Page
A	Profile 45x90L LF LF	**3 842 993 084/L_2**	1	2-40
B	Clamping profile LF6C	**3 842 992 925/L_2**	2	13-13
C	Guide rod LF	**3 842 993 967/L_2**	2	13-13
D	Trolley profile LF6C	**3 842 993 952/ 120 mm**	1	13-13
E	Cap LF6C	**3 842 539 120**	2	13-14
F	Guide bearing LF6	**3 842 535 662**	4	13-13
H	Drive head LF6C	**3 842 526 416**	1	13-14
I	Return head LF6C	**3 842 526 417**	1	13-15
J	Toothed belt LF6C	**3 842 994 711/L_3**[1)]	1	13-15
K	Belt connector LF6C	**3 842 535 681**	2	13-15

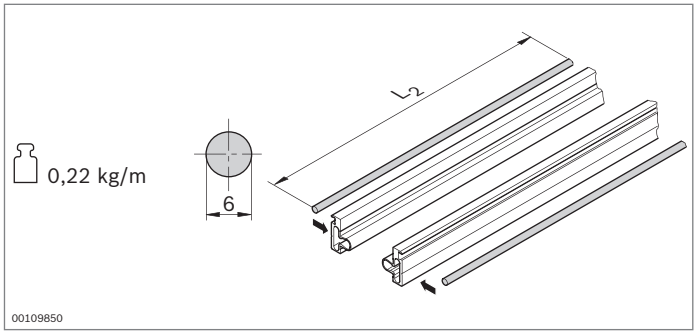
[1)] $L_3 = 2xL_2 - L_1 + 400$





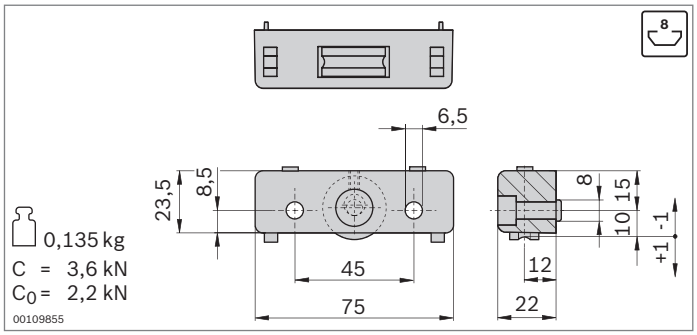
- The clamping profile is clipped into any 10 mm strut profile slot and holds the guide rods

Clamping profile		L_2 (mm)	No.
LF6C	1 pc	150 ... 3000	**3 842 992 925/L_2**
	20 pcs	3000	**3 842 518 896**
Material:	Aluminum, anodized		



- The guide rod is pressed into the clamping profile
- The guide rod guides the guide bearing

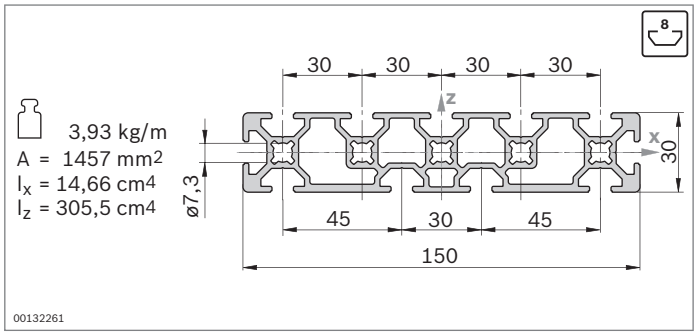
Guide rod	L_2 (mm)		No.
LF6	150 ... 3000	1	**3 842 993 967/L_2**
	3000	20	**3 842 539 414**
Material:	Solid shaft VA, induction hardened, polished		
Condition on delivery:	Ungreased; greasing according to assembly instructions **3 842 527 226**		



- Guide bearing for trolley construction
- Guiding via guide rod
- Rollers with ball bearings, permanently lubricated
- Lubricating felts with guide rod lubrication reservoir
- Secure roller adjustment via eccentric bolts

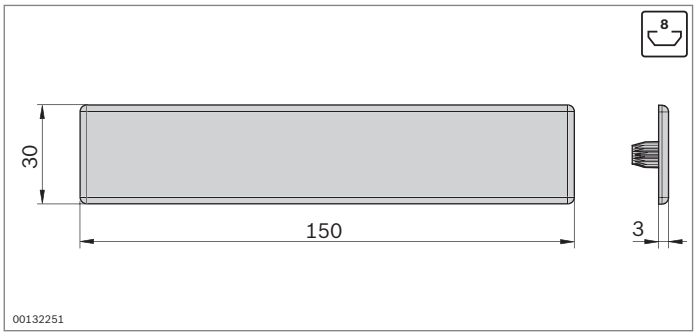
Guide bearing		No.	FS
LF6	2	**3 842 535 662**	2xFS1
Material:	Housing: diecast aluminum Roller: steel, hardened, polished		
Scope of delivery:	Incl. fastening material (FS)		
Condition on delivery:	Ungreased lubricating felts; greasing according to assembly instructions **3 842 527 226**		

FS1
ISO 4762
M6x22



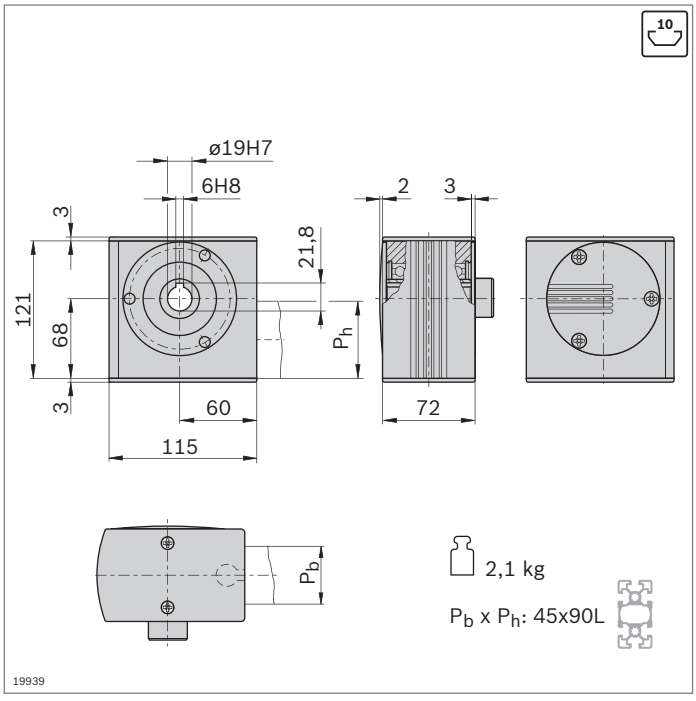
- Trolley profile for the construction of trolley LF6C

Trolley profile	L (mm)	No.
LF6C	150 ... 3000	**3 842 993 952/L**
Material:	Aluminum, anodized	



- Cap for trolley profile LF6C
- For use on trolleys not driven by a toothed belt

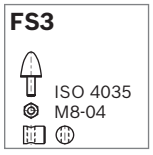
Cap		No.
LF6C	2	**3 842 539 120**
Material:	PA, black	

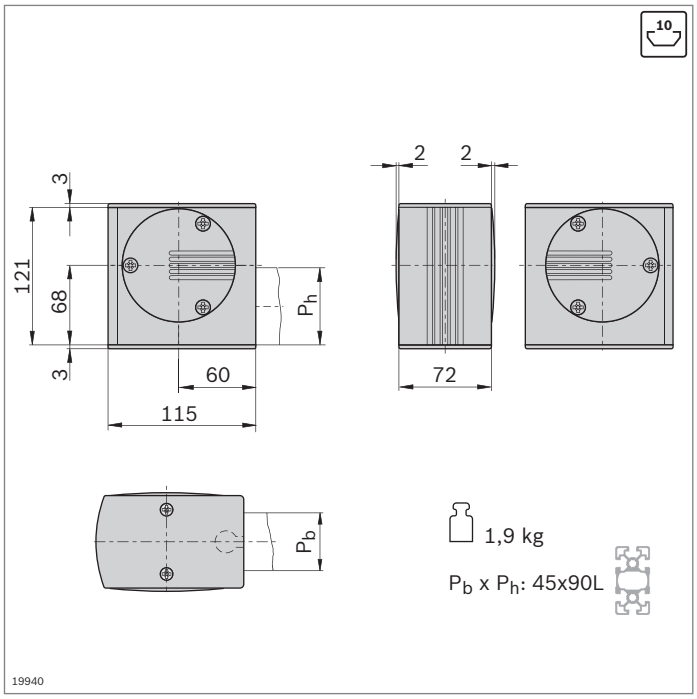


- Drive head for drive torque transfer to a toothed belt
- To directly fit a motor or (in connection with a center shaft) a hollow shaft gear or a coupling
- Mounting with longitudinal end connector directly to profile 45x90L
- Profile finishing: LF blind hole drilling for longitudinal end connector

Drive head	No.	FS
LF6C	**3 842 526 416**	2xFS2, FS3
Material:	Aluminum, anodized Hollow shaft: steel, galvanized Caps: PA, black	
Scope of delivery:	Including fastening material (FS), caps	
Accessories:	Flanges (p. 13-49), gears (p. 13-47), servomotors (p. 13-45)	







- Return head to tension the toothed belt and change its direction
- Mounting with longitudinal end connector directly to profile 45x90L
- Profile finishing: LF blind hole drilling for longitudinal end connector

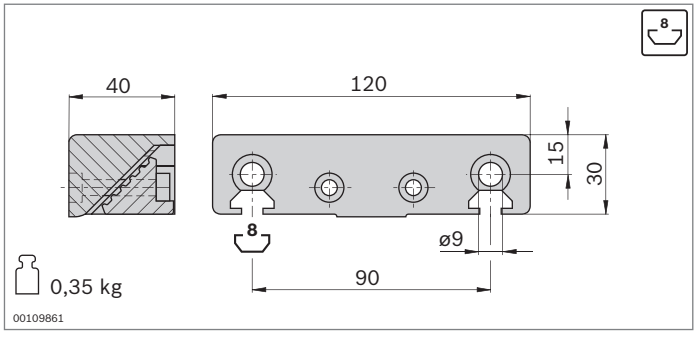
Return head	No.	FS
LF6C	**3 842 526 417**	2xFS2, FS3

Material: Aluminum, anodized
Hollow shaft: steel, galvanized
Caps: PA, black

Scope of delivery: Including fastening material (FS), caps

FS2
ISO 7380
M8x40

FS3
ISO 4035
M8-04



- Belt connector to fix the toothed belt at the trolley slot
- All connecting parts included for mounting at the trolley profile LF6C

Belt connector		No.	FS
LF6C	2	**3 842 535 681**	2xFS4, 2xFS5, 2xFS6

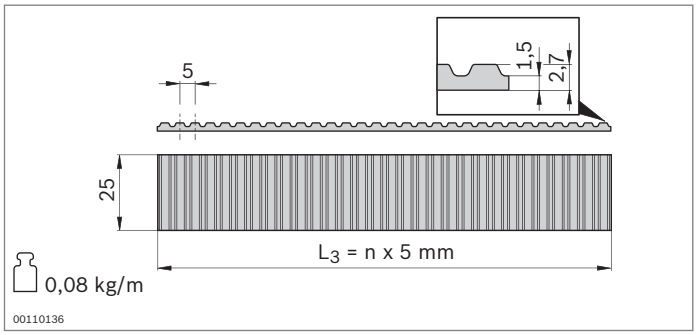
Material: Aluminum, painted black

Scope of delivery: Incl. fastening material (FS)

FS4
DIN 7984
M6x35
6-FSt
ISO 4032–M6

FS5
DIN 7984
M8x50
8-FSt
8

FS6
DIN 7984
M8x40



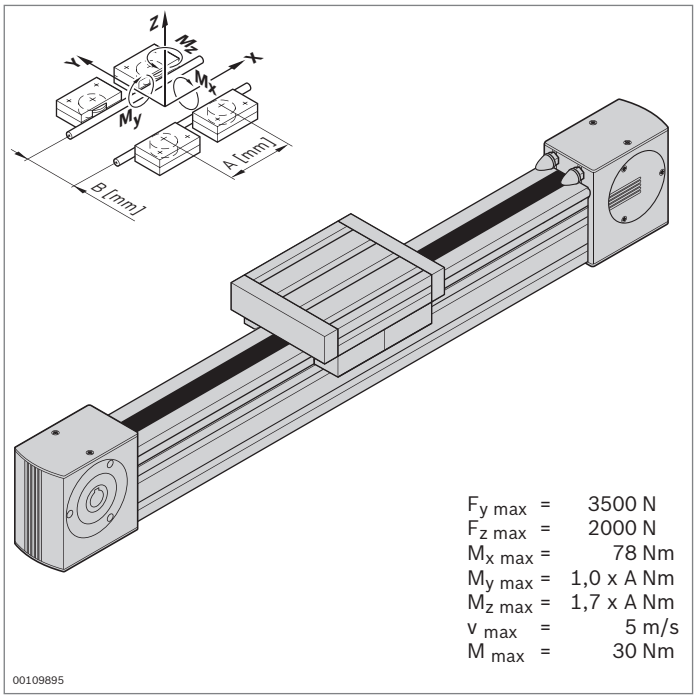
- Toothed belt as a trolley drive
- Pitch: AT5

Toothed belt	L_3 (mm)	No.
LF6C	300 ... 50000	**3 842 994 711/L_3** [1]
	50000	**3 842 518 856**

[1] $L_3 = 2xL_2 - L_1 + 400$

Material: PU with embedded steel wires

13



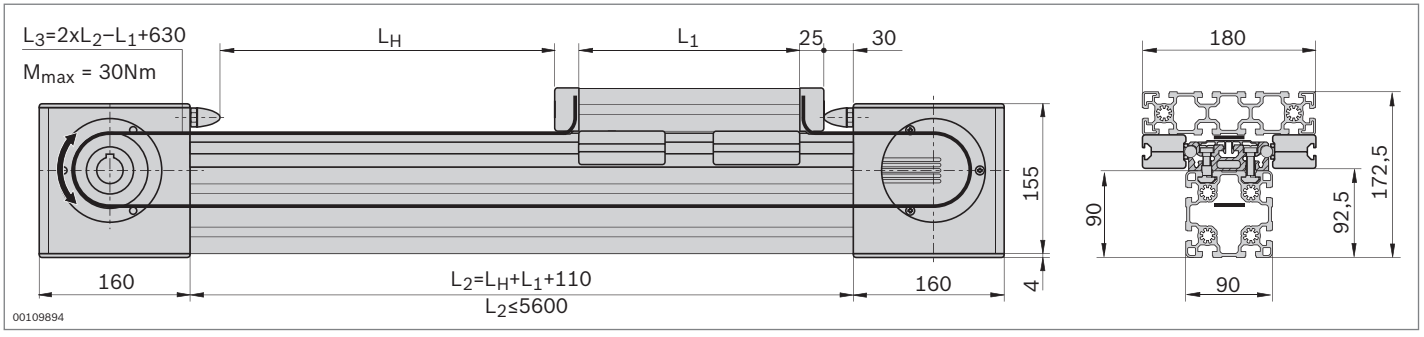
Cam roller guide LF12S – complete axis

10

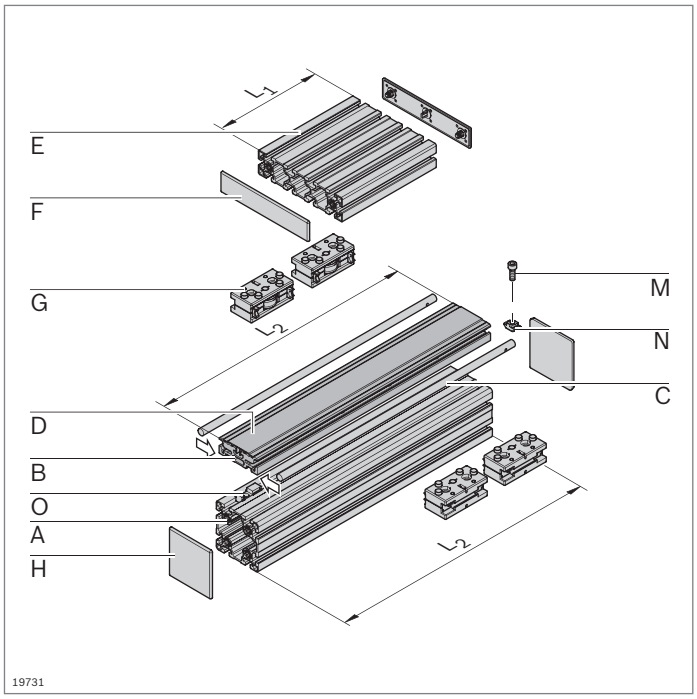
- Fully assembled cam roller guide
- Stroke and trolley length can be individually selected
- Rail profile mounted on strut profile 90x90L
- Including toothed belt drive; additional notes on the drive concept (p. 13-44)

Accessories:

- MSK servomotor (p. 13-45)
- Gear LF12 (p. 13-47)
- Flange LF12 (p. 13-49)
- Switch unit (p. 13-53)
- Actuating elements LF12 (p. 13-54)
- For information on controls, see page 13-48 and the IndraDrive catalog **R911308428**



Complete axis	L_H/L_1 (mm)	No.
LF12S	$L_1+50 \leq L_H \leq 5310$ $180 \leq L_1 \leq 1000$	**3 842 998 497/L_H/L_1**



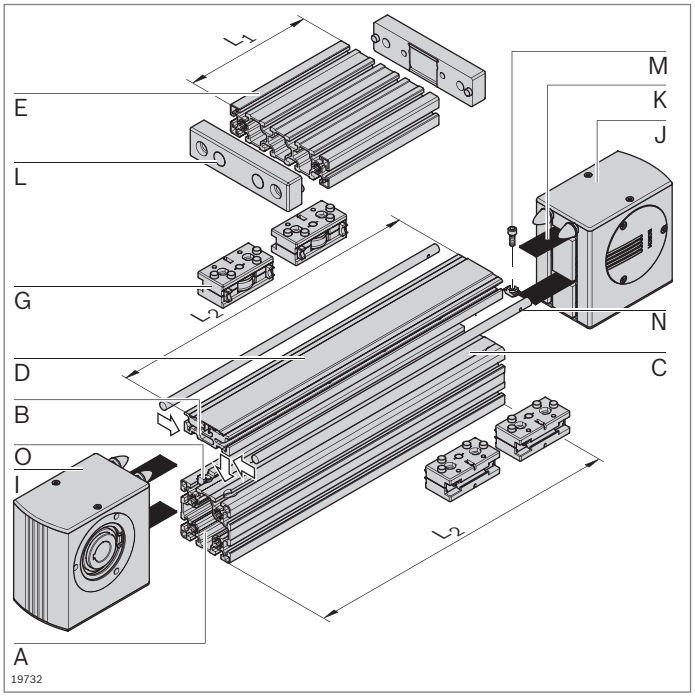
Cam roller guide LF12S – components

- Components for the individual assembly of cam roller guides, with or without drive

Parts list for cam roller guide LF12S without drive

Component		No.	Qty.	Page
A	Profile 90x90L	**3 842 992 415/L_2**	1	2-43
B	Guide profile LF12S	**3 842 992 438/L_2**	1	13-18
C	Guide rod LF12	**3 842 993 968/L_2**	2	13-18
D	Cover profile LF12S	**3 842 993 062/L_2**	1	13-18
E	Profile 45x180	**3 842 990 335/L_1**	1	2-41
F	Cap 45x180	**3 842 503 845**	2	2-41
G	Guide bearing LF12	**3 842 535 664**	4	13-19
H	Cap 90x90	**3 842 516 214**	2	2-43
M	Cylinder screw DIN 7984 – M8x30		n[1)]	
N	T-nut M8, 10 mm slot	**3 842 530 287**	n[1)]	3-4
O	Sliding block	**3 842 146 877**	n[1)]	13-18

[1)] See page 13-18 for identification

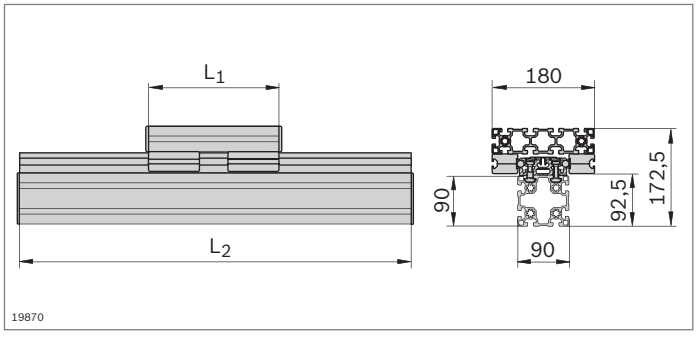


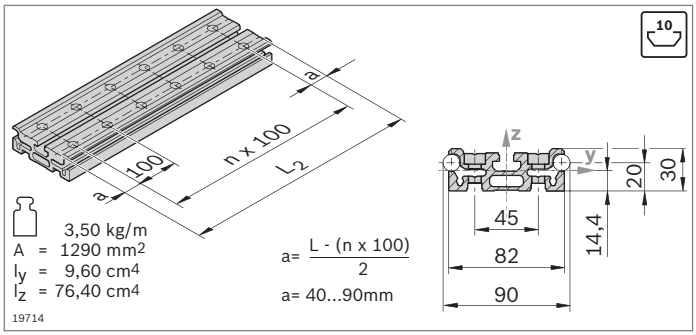
Parts list for cam roller guide LF12S with drive

Component		No.	Qty.	Page
A	Profile 90x90L LF LF	**3 842 992 418/L_2**	1	2-43
B	Guide profile LF12S	**3 842 992 438/L_2**	1	13-18
C	Guide rod LF12	**3 842 993 968/L_2**	2	13-18
D	Cover profile LF12S	**3 842 993 062/L_2**	1	13-18
E	Profile 45x180 M12 M12	**3 842 990 339/L_1**	1	2-41
G	Guide bearing LF12	**3 842 535 664**	4	13-19
I	Drive head LF12S	**3 842 526 412**	1	13-21
J	Return head LF12S	**3 842 526 413**	1	13-21
K	Toothed belt	**3 842 994 821/L_3[1)]**	1	13-22
L	Belt connector	**3 842 535 680**	2	13-22
M	Cylinder screw DIN 7984 – M8x30		n[2)]	
N	T-nut M8, 10 mm slot	**3 842 530 287**	n[2)]	3-4
O	Sliding block	**3 842 146 877**	n[2)]	13-18

[1)] $L_3 = 2xL_2 - L_1 + 630$

[2)] See page 13-18 for identification

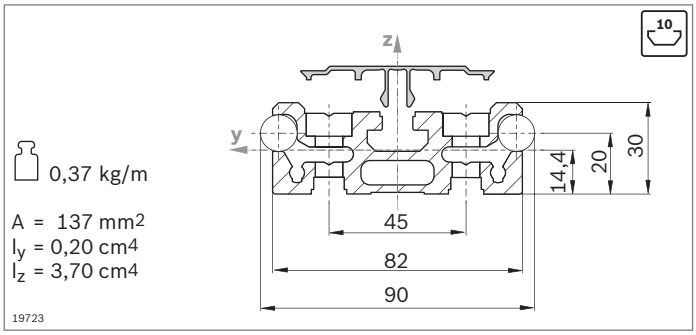




- Guide profile LF12S to hold guide rods
- Mounting on MGE strut profiles with 10 mm slot or directly on a flat surface

Guide profile		L_2 (mm)	No.
LF12S	1 pc	150 ... 5600	**3 842 992 438/L_2**
	5 pcs	5600	**3 842 511 841**

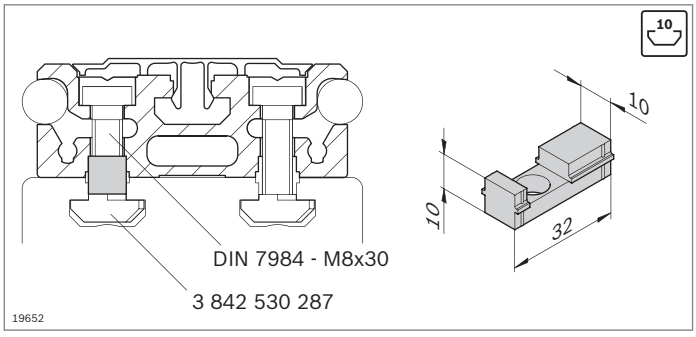
Material: Aluminum, anodized
Accessories: Cylinder screw DIN 7984 – M8x30
T-nut M8, 10 mm slot, **3 842 530 287**
Sliding block, cover profile, guide rod



- Cover profile to prevent contamination at threaded connections

Cover profile	L_2 (mm)	No.
LF12S	150 ... 5600	**3 842 993 062/L_2**

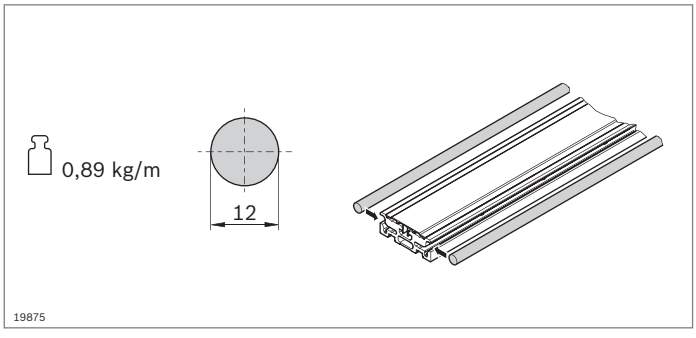
Material: PA, black



- Sliding block as a centering aid for mounting the guide profile in a 10 mm profile slot

Sliding block		No.
	50	**3 842 146 877**

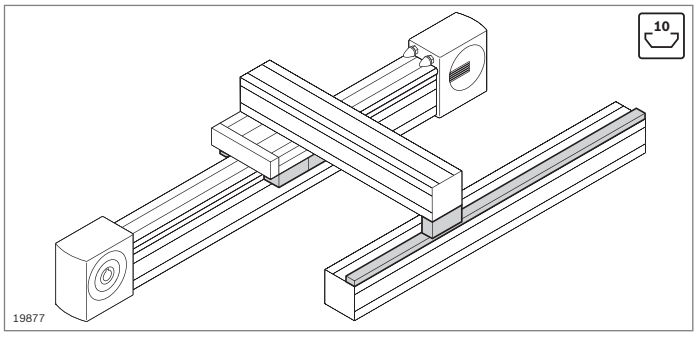
Material: PA, black



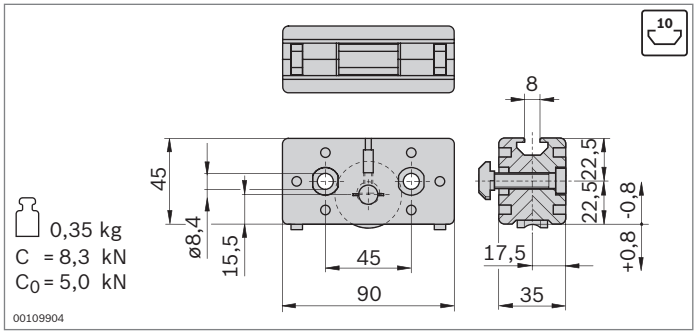
- The guide rod is pressed into the guide profile
- The guide rod guides the guide bearing

Guide rod	L_2 (mm)		No.
LF12	150 ... 2900	1	**3 842 993 968/L_2**
	2900	20	**3 842 539 415**

Material: Solid shaft VA, induction hardened and polished
Condition on delivery: Ungreased; greasing according to assembly instructions **3 842 527 226**



- Guide bearing for trolley construction
- Supporting bearing for brackets to withstand off-center forces
- Guide rail to hold supporting bearings (p. 13-20)



- Guide bearing for trolley construction
- Guiding via guide rod
- Rollers with ball bearings, permanently lubricated
- Lubricating felts with guide rod lubrication reservoir
- Secure roller adjustment via eccentric bolts
- Replacement of the lubricating felts possible from rear in installed state

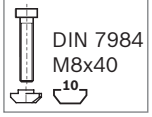
Guide bearing		No.	FS
LF12	2	**3 842 535 664**	2xFS1

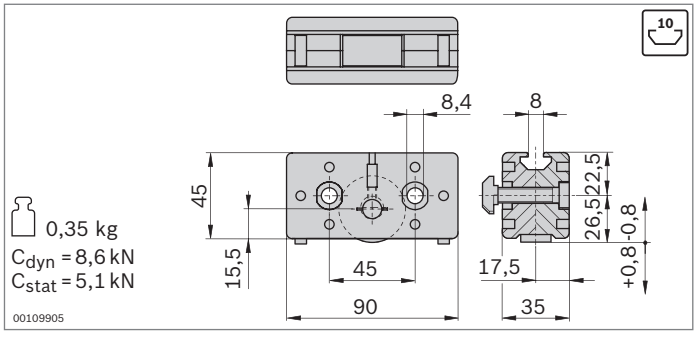
Material: Housing: diecast aluminum; Roller: steel, hardened, polished

Scope of delivery: Incl. fastening material (FS)

Condition on delivery: Ungreased lubricating felts; greasing according to assembly instructions **3 842 527 226**

FS1





- Supporting bearing for brackets to withstand off-center forces
- For support on the guide rail
- Rollers with ball bearings, permanently lubricated
- Lubricating felts with guide rod lubrication reservoir
- Secure roller adjustment via eccentric bolts
- Replacement of the lubricating felts possible from rear in installed state

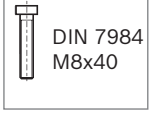
Supporting bearings		No.	FS
LF12	2	**3 842 535 666**	2xFS2

Material: Housing: diecast aluminum; Roller: steel, hardened, polished

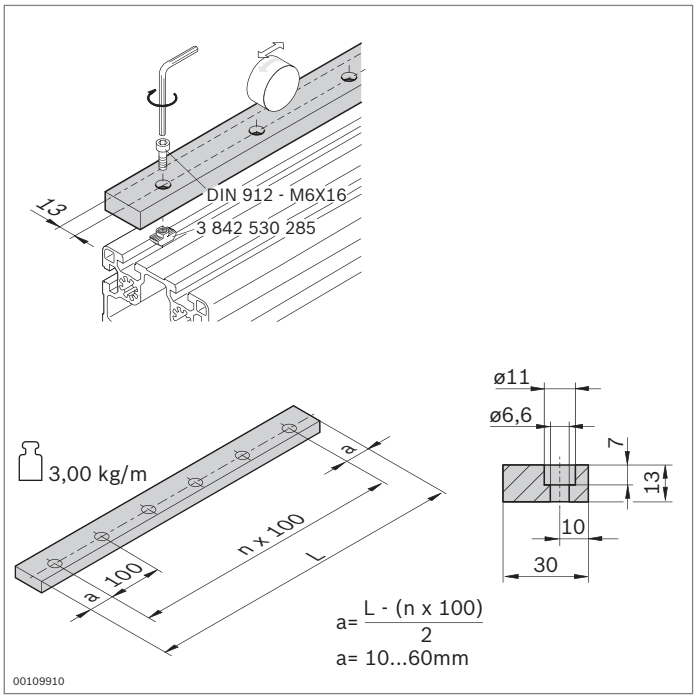
Scope of delivery: Incl. fastening material (FS)

Condition on delivery: Ungreased lubricating felts; greasing according to assembly instructions **3 842 527 226**

FS2



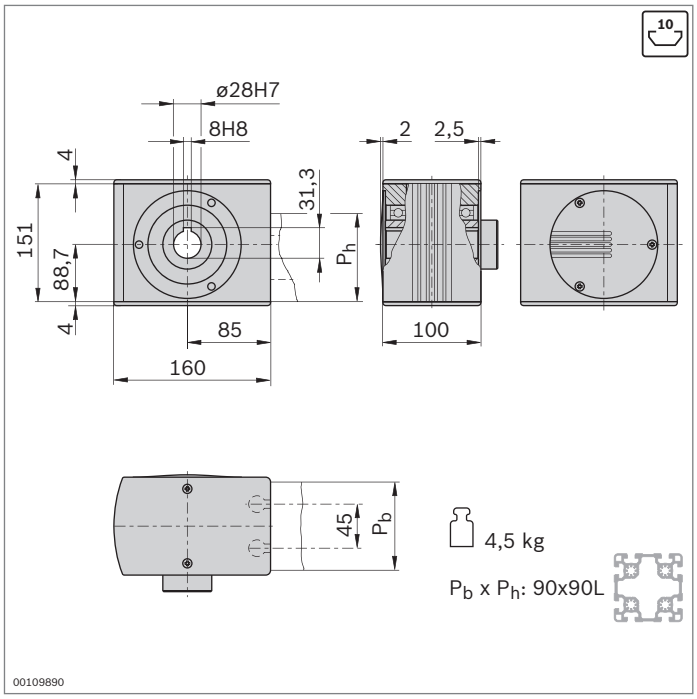
13



▶ Guide rail to hold supporting bearings

Guide rail	**L** (mm)	**No.**
LF12	120 ... 2000	**3 842 994 702/L**

Material:	Steel, hardened, polished
Condition on delivery:	Ungreased; greasing according to assembly instructions **3 842 527 226**
Accessories:	Cylinder-head screw DIN 912 – M6x16 T-nut M6, 10 mm slot (**3 842 530 285**)



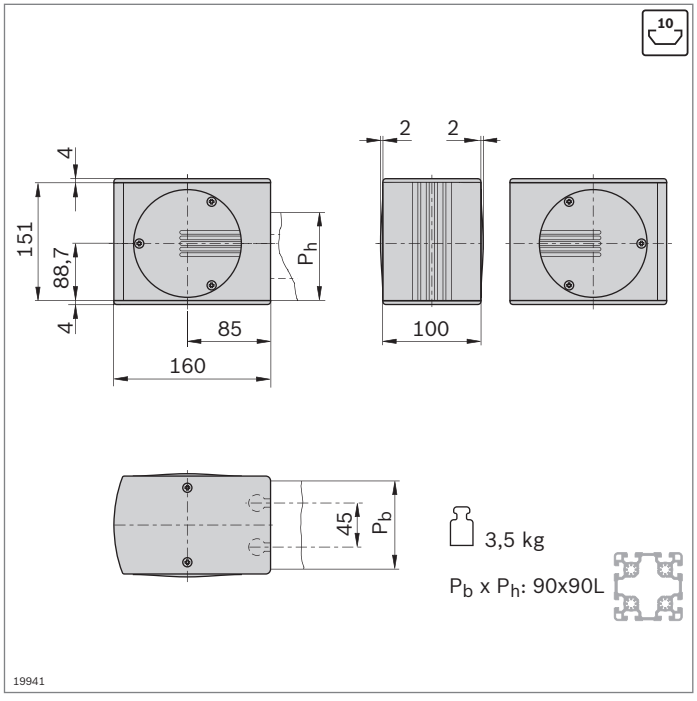
- Drive head for drive torque transfer to a toothed belt
- To directly fit a motor or (in connection with a center shaft) a hollow shaft gear or a coupling
- Mounting with longitudinal end connector directly to profile (connector included in scope of delivery)
- Profile finishing: LF blind hole drilling for longitudinal end connector

Drive head	No.	FS
LF12S	**3 842 526 412**	2xFS3, 2xFS4

Material:	Drive head: aluminum, anodized Caps: PA, black Hollow shaft: steel, galvanized
Scope of delivery:	Including fastening material (FS), caps
Accessories:	Flanges (p. 13-49), gears (p. 13-47), servomotors (p. 13-45)

FS3
ISO 7380
M8x40

FS4
ISO 4035
M8-04



- Return head to tension the toothed belt and change its direction
- Mounting with longitudinal end connector directly to profile (connector included in scope of delivery)
- Profile finishing: LF blind hole drilling for longitudinal end connector

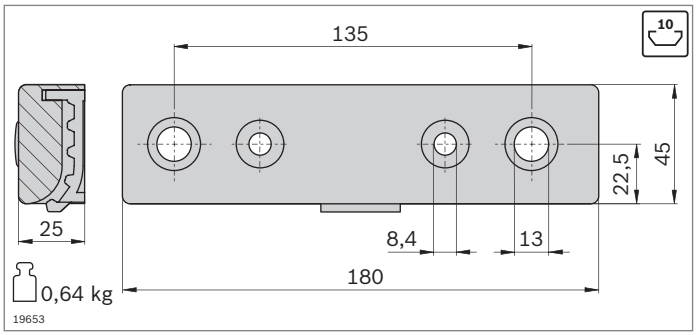
Return head	No.	FS
LF12S	**3 842 526 413**	2xFS3, 2xFS4

Material:	Aluminum, anodized Hollow shaft: steel, galvanized Caps: PA, black
Scope of delivery:	Including fastening material (FS), caps

FS3
ISO 7380
M8x40

FS4
ISO 4035
M8-04

13



- Belt connector to match trolley constructed with strut profile 45x180
- All connecting parts included for mounting at the profile end (LF12S) or the slot (LF12C)
- Profile finish for strut profile 45x180 for trolley LF12S: M12

Belt connector		No.	FS
LF12	2	**3 842 535 680**	2xFS5, 2xFS6, 2xFS7, 2xFS8, 4xFS9

Material: Aluminum, painted black
Scope of delivery: Incl. fastening material (FS)

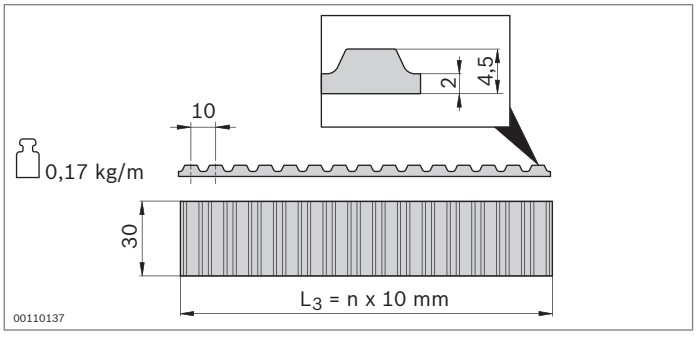
FS5
DIN7984 M12x40

FS6
DIN 7984 M8x30
DIN 125 A8,4
10

FS7
DIN 7991 M8x30
10

FS8
ø18x7

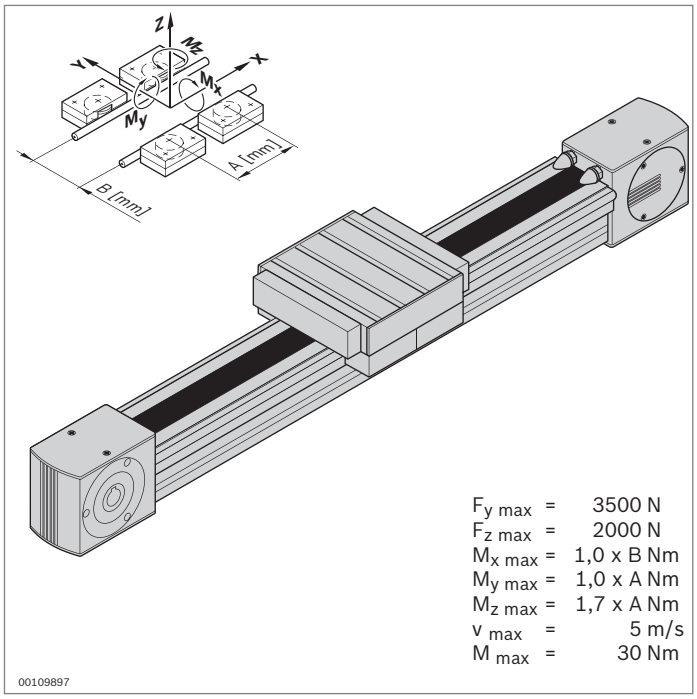
FS9
ø10xø5x11



- Toothed belt as a trolley drive
- Pitch: AT10

Toothed belt	L_3 (mm)	No.
LF12	300 ... 50000	**3 842 994 821/L_3** [1]
	50000	**3 842 526 422**

[1] $L_3 = 2xL_2 - L_1 + 630$
Material: PU with embedded steel wires



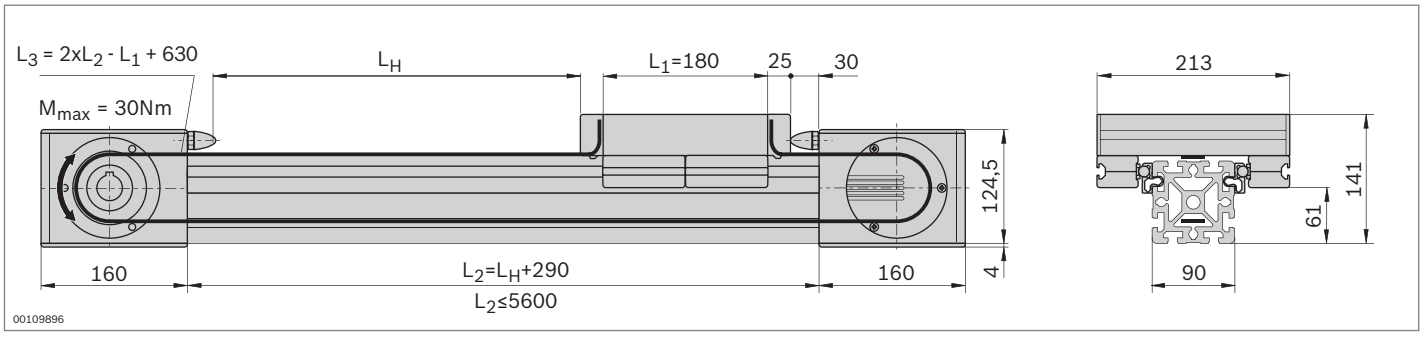
Cam roller guide LF12C – complete axis

10

- Fully assembled cam roller guide
- Stroke can be individually selected
- Clamping profile clipped into strut profile 90x90
- Including toothed belt drive; additional notes on the drive concept (p. 13-44)

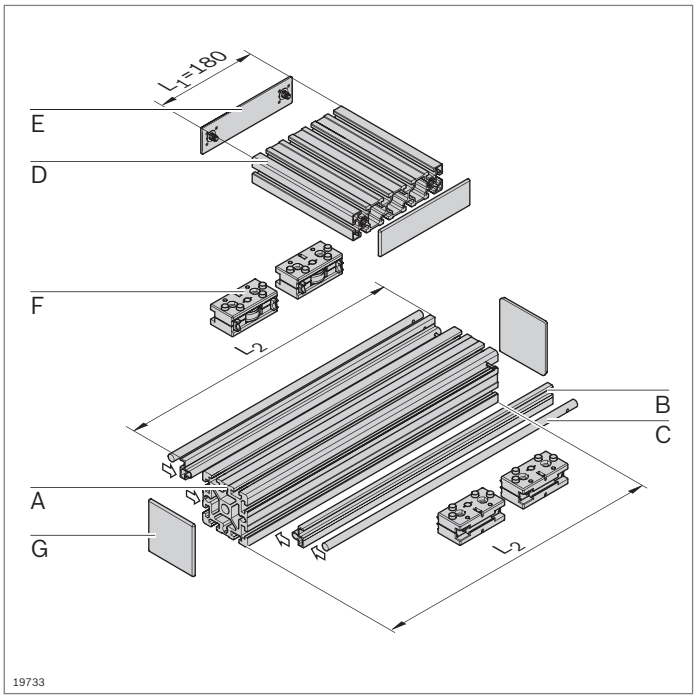
Accessories:

- MSK servomotor (p. 13-45)
- Gear LF12 (p. 13-47)
- Flange LF12 (p. 13-49)
- Switch unit (p. 13-53)
- Actuating elements LF12 (p. 13-54)
- For information on controls, see page 13-48 and the IndraDrive catalog **R911308428**



Complete axis	L_H (mm)	No.
LF12C	50 ... 5310	**3 842 998 498/L_H**

13

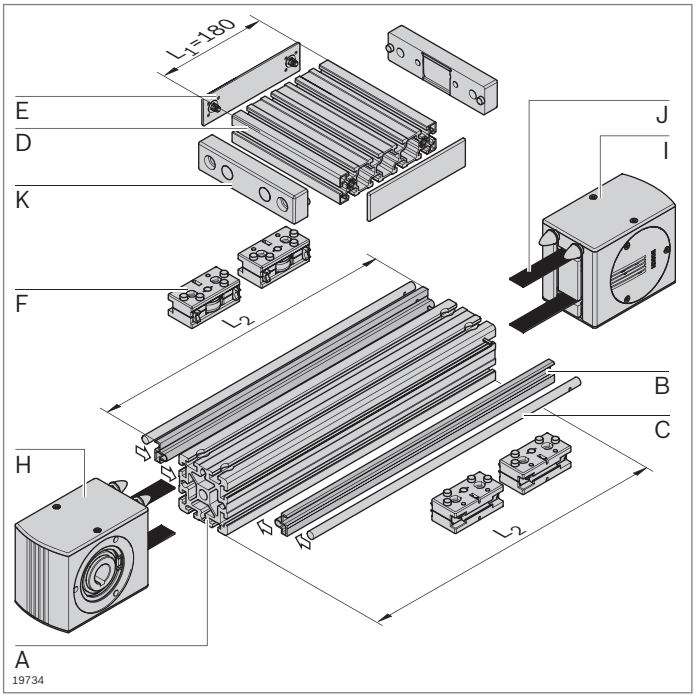


Cam roller guide LF12C – components

- Components for the individual assembly of cam roller guides, with or without drive

Parts list for cam roller guide LF12C without drive

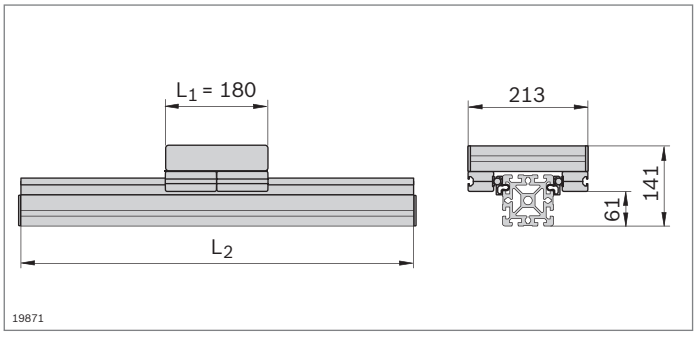
Component		No.	Qty.	Page
A	Profile 90x90	**3 842 990 500/L_2**	1	2-44
B	Clamping profile LF12C	**3 842 992 440/L_2**	2	13-25
C	Guide rod LF12	**3 842 993 968/L_2**	2	13-25
D	Profile 45x180	**3 842 990 335/ 205 mm**	1	2-41
E	Cap 45x180	**3 842 503 845**	2	2-41
F	Guide bearing LF12	**3 842 535 664**	4	13-26
G	Cap 90x90	**3 842 242 400**	2	2-44

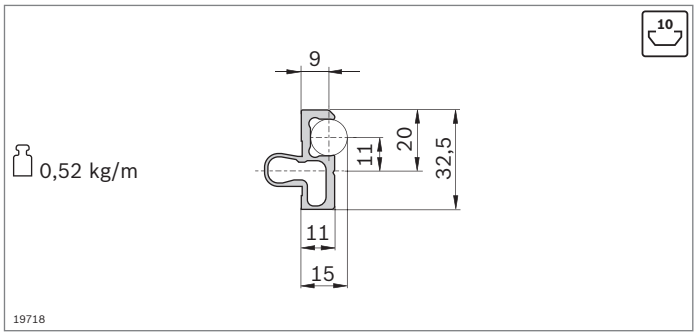


Parts list for cam roller guide LF12C with drive

Component		No.	Qty.	Page
A	Profile 90x90 LF LF	**3 842 993 082/L_2**	1	2-44
B	Clamping profile LF12C	**3 842 992 440/L_2**	2	13-25
C	Guide rod LF12	**3 842 993 968/L_2**	2	13-25
D	Profile 45x180	**3 842 990 335/ 205 mm**	1	2-41
E	Cap 45x180	**3 842 503 845**	2	2-41
F	Guide bearing LF12	**3 842 535 664**	4	13-26
H	Drive head LF12C	**3 842 526 863**	1	13-28
I	Return head LF12C	**3 842 526 865**	1	13-28
J	Toothed belt LF12	**3 842 994 821/L_3**[1)]	1	13-29
K	Belt connector LF12	**3 842 535 680**	2	13-29

[1)] $L_3 = 2xL_2 - L_1 + 630$

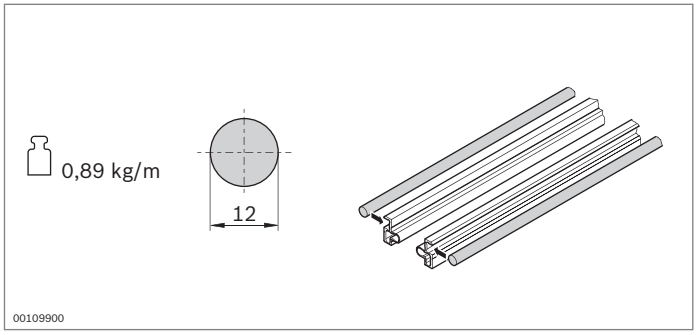




- The clamping profile is clipped into any strut profile with a 10 mm slot and holds the guide rods

Clamping profile		L_2 (mm)	No.
LF12C	1 pc	150 ... 3000	**3 842 992 440/L_2**
	20 pcs	3000	**3 842 518 897**

Material: Aluminum, anodized

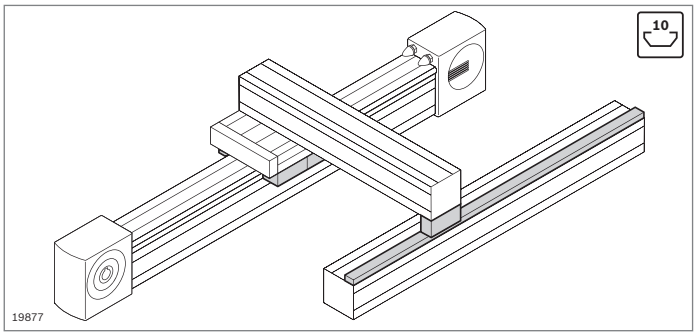


- The guide rod is pressed into the clamping profile
- The guide rod guides the guide bearing

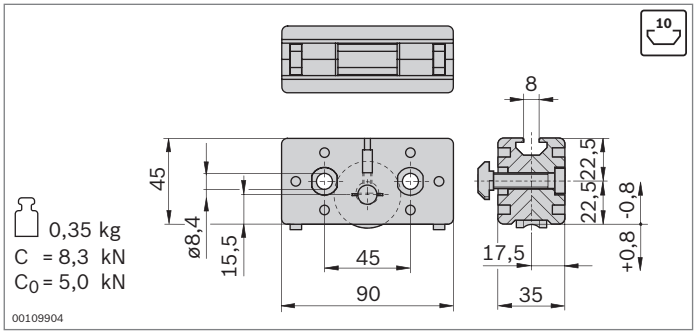
Guide rod	L_2 (mm)		No.
LF12	150 ... 2900	1	**3 842 993 968/L_2**
	2900	20	**3 842 539 415**

Material: Solid shaft VA, induction hardened and polished

Condition on delivery: Ungreased; greasing according to assembly instructions **3 842 527 226**

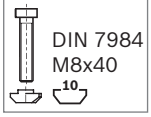


- Guide bearing for trolley construction
- Supporting bearing for brackets to withstand off-center forces
- Guide rail to hold supporting bearings (p. 13-27)



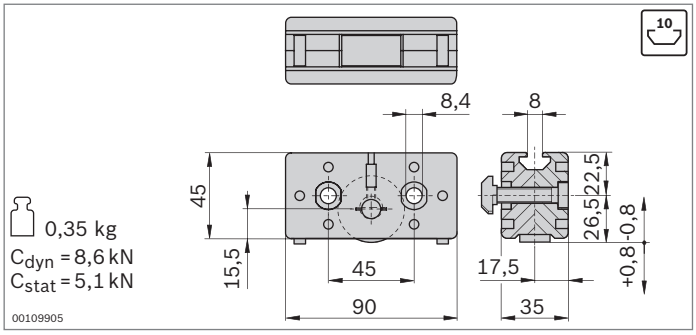
- Guide bearing for trolley construction
- Guiding via guide rod
- Rollers with ball bearings, permanently lubricated
- Lubricating felts with guide rod lubrication reservoir
- Secure roller adjustment via eccentric bolts
- Replacement of the lubricating felts possible from rear in installed state

FS1



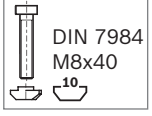
Guide bearing		No.	FS
LF12	2	**3 842 535 664**	2xFS1

Material:	Guide bearing: diecast aluminum Roller: steel, hardened, polished
Scope of delivery:	Incl. fastening material (FS)
Condition on delivery:	Ungreased lubricating felts; greasing according to assembly instructions **3 842 527 226**



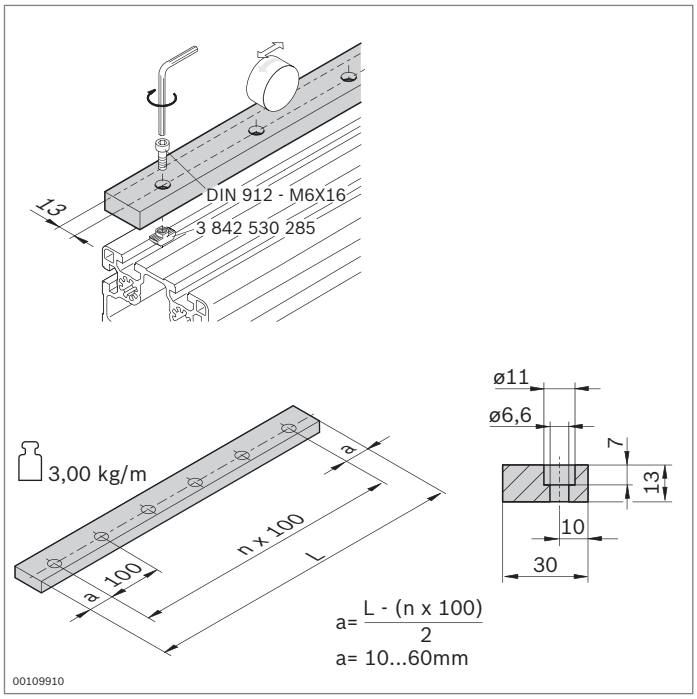
- Supporting bearing for brackets to withstand off-center forces
- For support on the guide rail
- Rollers with ball bearings, permanently lubricated
- Lubricating felts with guide rod lubrication reservoir
- Secure roller adjustment via eccentric bolts
- Replacement of the lubricating felts possible from rear in installed state

FS1



Supporting bearings		No.	FS
LF12	2	**3 842 535 666**	2xFS1

Material:	Guide bearing: diecast aluminum Roller: steel, hardened, polished
Scope of delivery:	Incl. fastening material (FS)
Condition on delivery:	Ungreased lubricating felts; greasing according to assembly instructions **3 842 527 226**

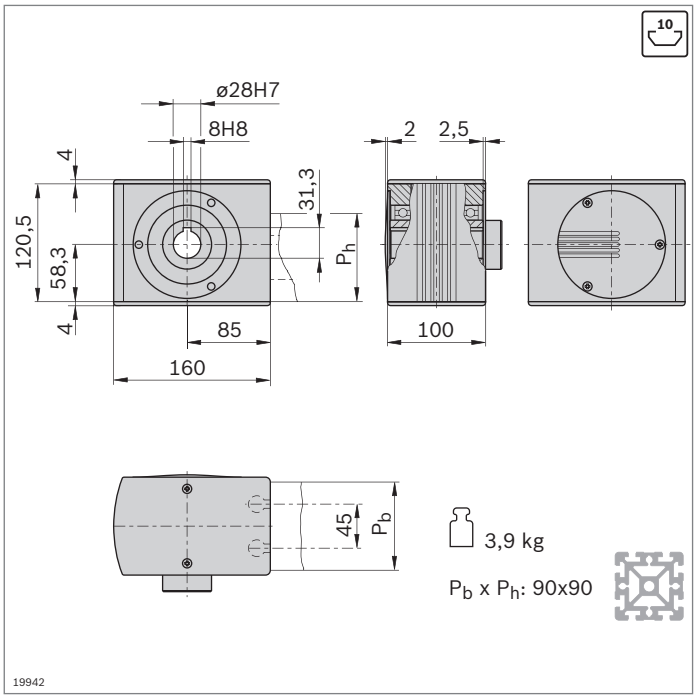


▶ Guide rail to hold supporting bearings

Guide rail	**L** (mm)	**No.**
LF12	120 ... 2000	**3 842 994 702/L**

Material:	Steel, hardened, polished
Condition on delivery:	Ungreased; greasing according to assembly instructions **3 842 527 226**
Accessories:	Cylinder-head screw DIN 912 – M6x16 T-nut M6, 10 mm slot (**3 842 530 285**)

13



- Drive head for drive torque transfer to a toothed belt
- To directly fit a motor or (in connection with a center shaft) a hollow shaft gear or a coupling
- Mounting with longitudinal end connector directly to profile (connector included in scope of delivery)
- Profile finishing: LF blind hole drilling for longitudinal end connector

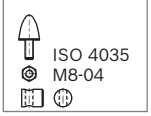
Drive head	No.	FS
LF12C	**3 842 526 863**	4xFS2, 2xFS3

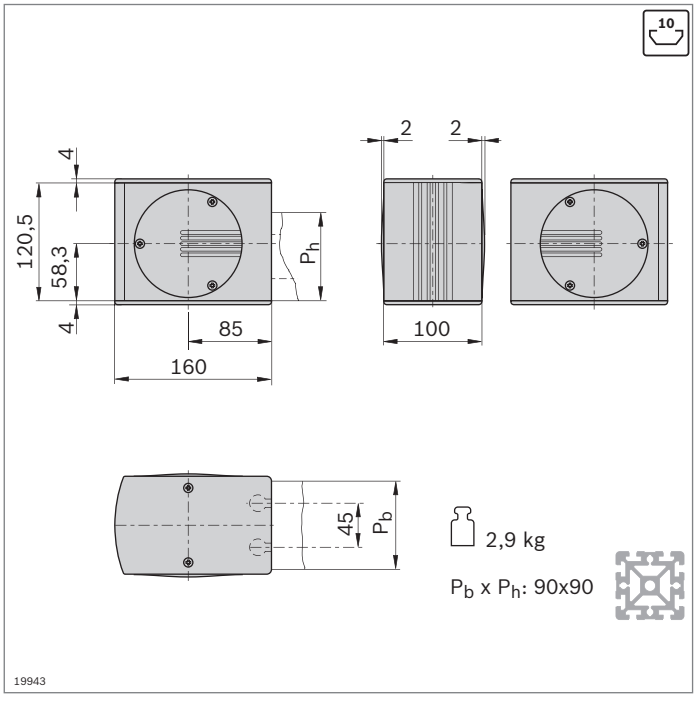
Material:	Drive head: aluminum, anodized Hollow shaft: steel, galvanized Caps: PA, black
Scope of delivery:	Including fastening material (FS), caps
Accessories:	Flanges (p. 13-49), gears (p. 13-47), servomotors (p. 13-45)

FS2



FS3





- Return head to tension the toothed belt and change its direction
- Mounting with longitudinal end connector directly to profile (connector included in scope of delivery)
- Profile finishing: LF blind hole drilling for longitudinal end connector

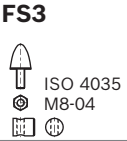
Return head	No.	FS
LF12C	**3 842 526 865**	4xFS2, 2xFS3

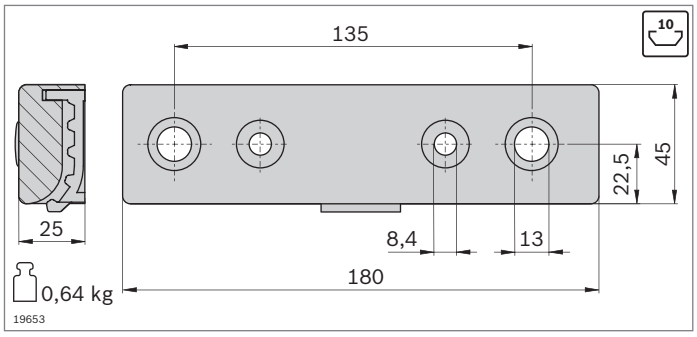
Material:	Return head: aluminum, anodized Hollow shaft: steel, galvanized Caps: PA, black
Scope of delivery:	Including fastening material (FS), caps

FS2



FS3





- Belt connector to match trolley constructed with strut profile 45x180
- All connecting parts included for mounting at the profile end (LF12S) or the slot (LF12C)
- Profile finish for strut profile 45x180 for trolley LF12S: M12

Belt connector		No.	FS
LF12	2	**3 842 535 680**	2xFS4, 2xFS5, 2xFS6, 2xFS7, 4xFS8

Material: Aluminum, painted black
Scope of delivery: Incl. fastening material (FS)

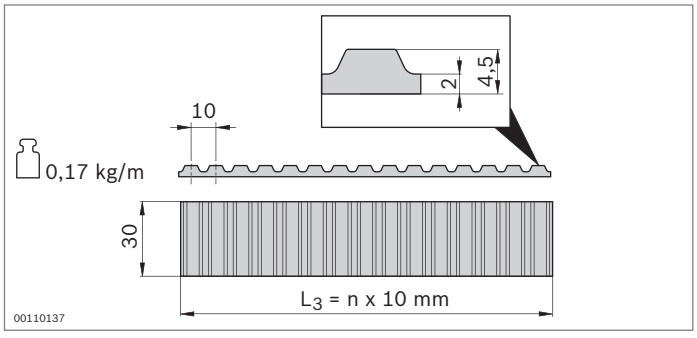
FS4
DIN7984 M12x40

FS5
DIN 7984 M8x30
DIN 125 A8,4
10

FS6
DIN 7991 M8x30
10

FS7
ø18x7

FS8
ø10xø5x11

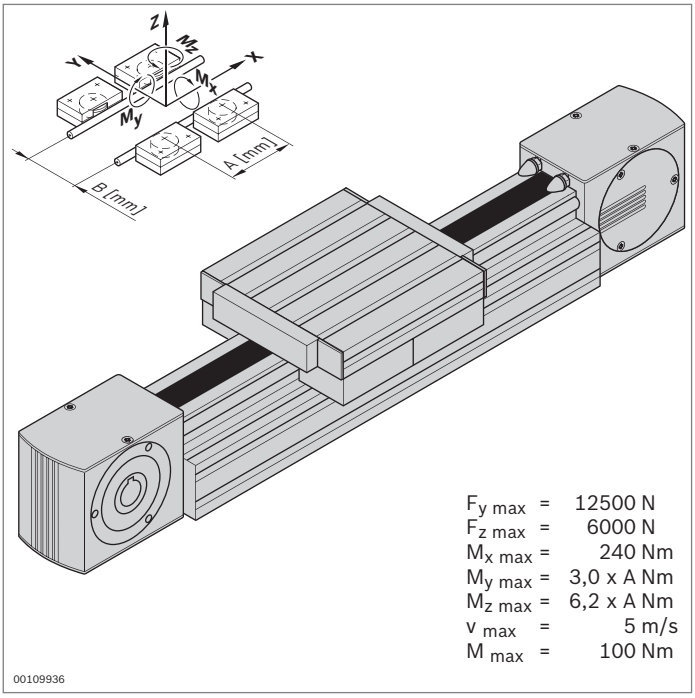


- Toothed belt as a trolley drive
- Pitch: AT10

Toothed belt	L_3 (mm)	No.
LF12	300 ... 50000	**3 842 994 821/L_3** [1]
	50000	**3 842 526 422**

[1] $L_3 = 2xL_2 - L_1 + 630$
Material: PU with embedded steel wires

13



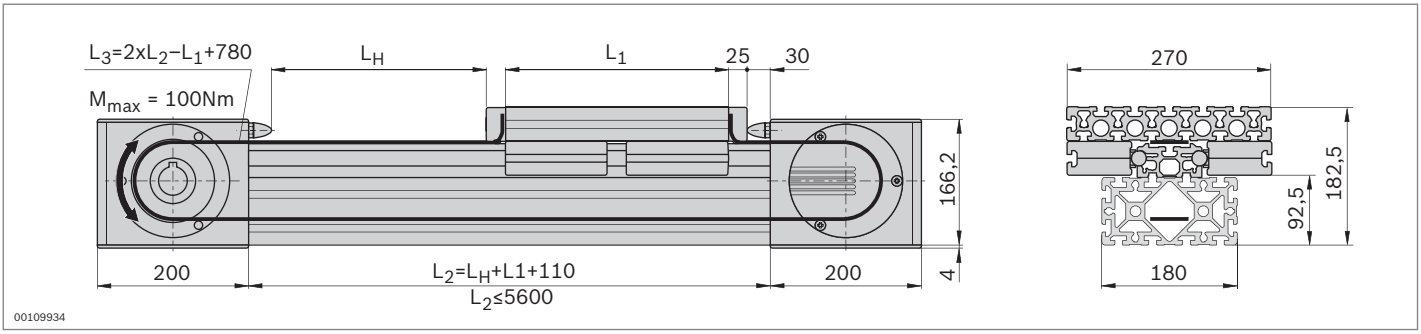
Cam roller guide LF20S – complete axis

10

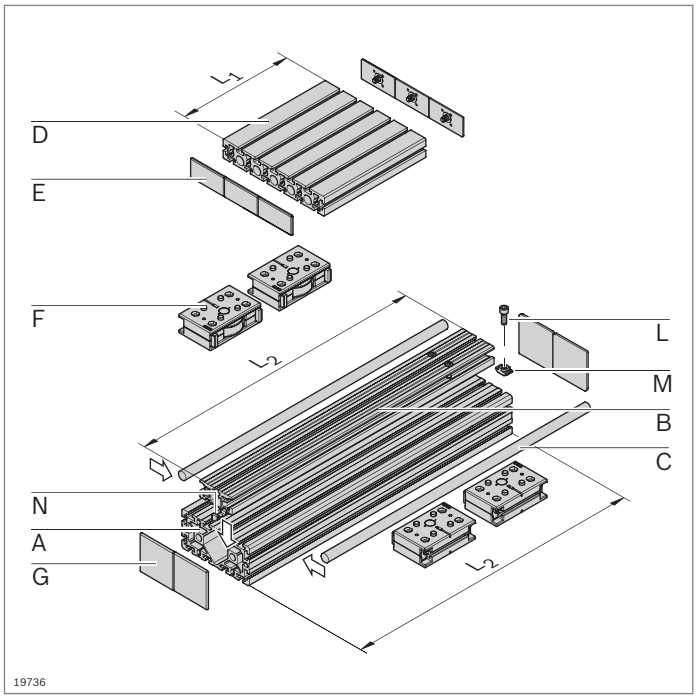
- Fully assembled cam roller guide
- Stroke and trolley length can be individually selected
- Rail profile mounted on strut profile 90x180
- Including toothed belt drive; additional notes on the drive concept (p. 13-44)

Accessories:

- MSK servomotor (p. 13-45)
- LF20 gear (p. 13-47)
- LF20 flange (p. 13-49)
- Switch unit (p. 13-53)
- LF20 actuating elements (p. 2-37)
- For information on controls, see page 13-48 and the IndraDrive catalog **R911308428**



Complete axis	L_H/L_1 (mm)	No.
LF20S	L_1+50 ≤ L_H ≤ 5220 270 ≤ L_1 ≤ 1000	**3 842 998 499/L_H/L_1**



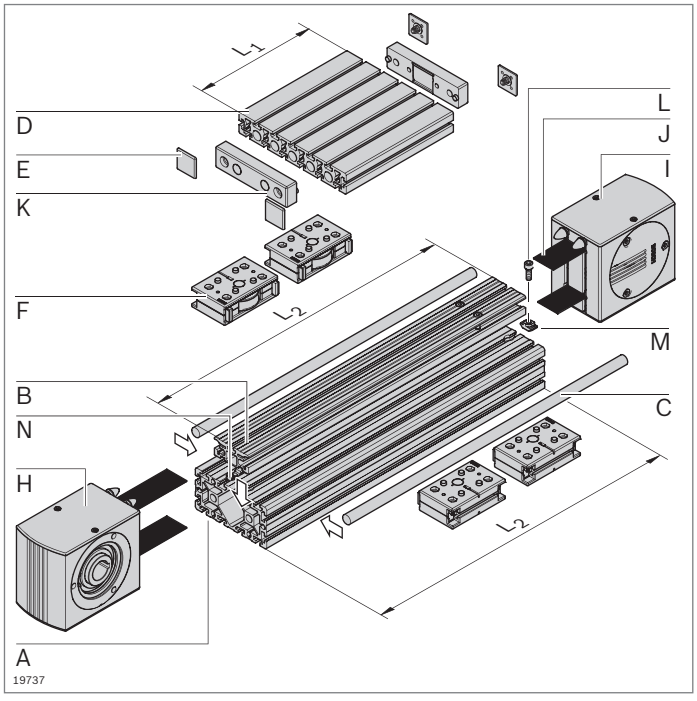
Cam roller guide LF20S – components

- Components for the individual assembly of cam roller guides, with or without drive

Parts list for cam roller guide LF20S without drive

Component		No.	Qty.	Page
A	Profile 90x180	**3 842 990 416/L_2**	1	2-45
B	Guide profile LF20S	**3 842 993 080/L_2**	1	13-32
C	Guide rod LF20	**3 842 993 969/L_2**	2	13-32
D	Profile 45x270	**3 842 992 927/L_1**	1	2-42
E	Cap 45x90	**3 842 511 783**	6	2-42
F	Guide bearing LF20	**3 842 535 663**	4	13-33
G	Cap 90x90	**3 842 242 400**	4	2-44
L	Cylinder screw DIN 7984 – M8x45		n[1)]	
M	T-nut M8, 10 mm slot	**3 842 530 287**	n[1)]	3-4
N	Sliding block	**3 842 146 877**	n[1)]	13-32

[1)] See page 13-32 for identification

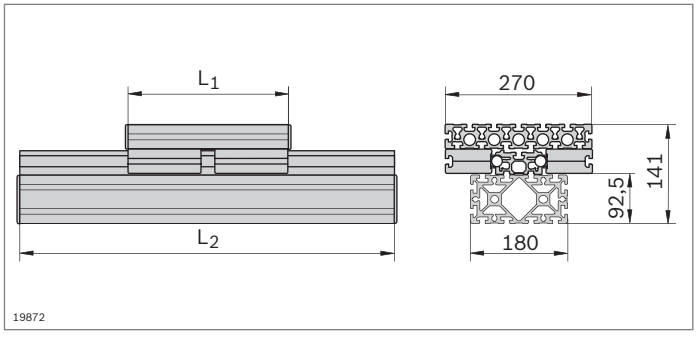


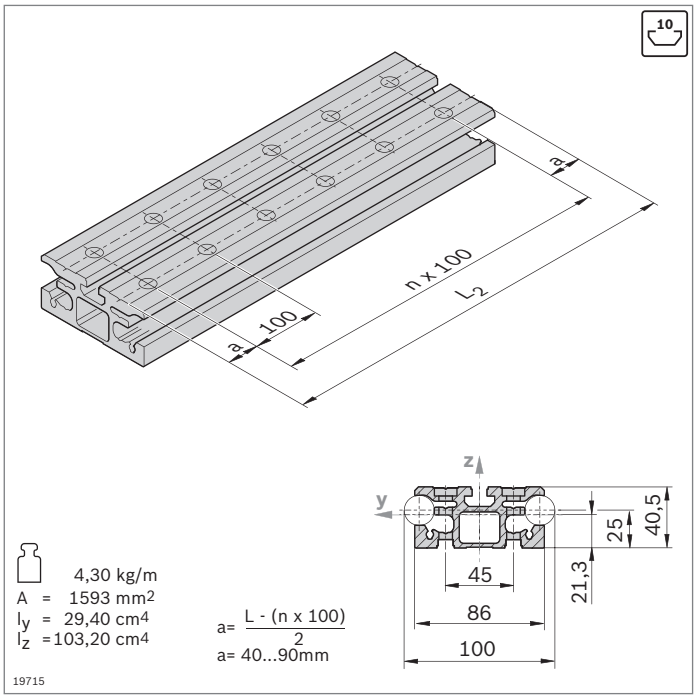
Parts list for cam roller guide LF20S with drive

Component		No.	Qty.	Page
A	Profile 90x180 LF-S LF-S	**3 842 993 081/L_2**	1	2-45
B	Guide profile LF20S	**3 842 993 080/L_2**	1	13-32
C	Guide rod LF20	**3 842 993 969/L_2**	2	13-32
D	Profile 45x270 M12 M12	**3 842 992 928/L_1**	1	2-42
E	Cap 45x45	**3 842 502 674**	4	2-38
F	Guide bearing LF20	**3 842 535 663**	4	13-33
H	Drive head LF20S	**3 842 526 414**	1	13-35
I	Return head LF20S	**3 842 526 415**	1	13-35
J	Toothed belt LF20	**3 842 994 662/L_3[1)]**	1	13-36
K	Belt connector LF20	**3 842 535 680**	2	13-36
L	Cylinder screw DIN 7984 – M8x45		n[2)]	
M	T-nut M8, 10 mm slot	**3 842 530 287**	n[2)]	3-4
N	Sliding block	**3 842 146 877**	n[2)]	13-32

[1)] $L_3 = 2xL_2 - L_1 + 780$

[2)] See page 13-32 for identification

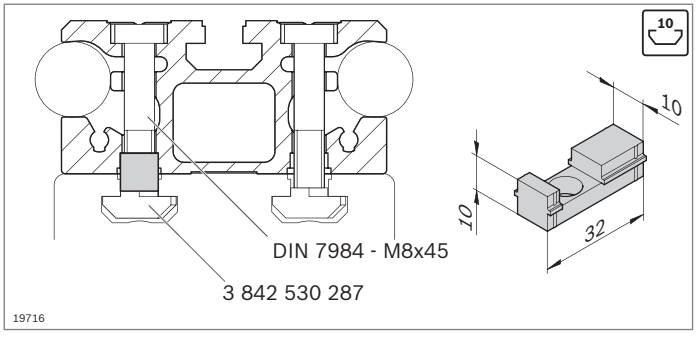




- Guide profile LF20S to hold guide rods
- Mounting on MGE strut profiles with 10 mm slot or directly on a flat surface

Guide profile		L_2 (mm)	No.
LF20S	1 pc	150 ... 5600	**3 842 993 080/L_2**
	5 pcs	5600	**3 842 526 878**

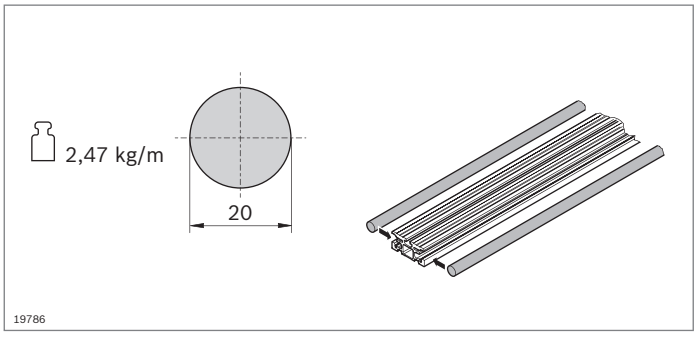
Accessories: Cylinder screw DIN 7984 – M8x45
T-nut M8, 10 mm slot (p. 3-4)
Sliding block



- Sliding block as a centering aid for mounting the guide profile in a 10 mm profile slot

Sliding block		No.
	50	**3 842 146 877**

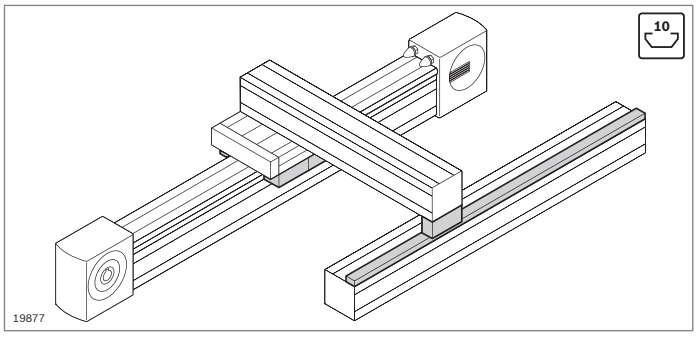
Material: PA, black



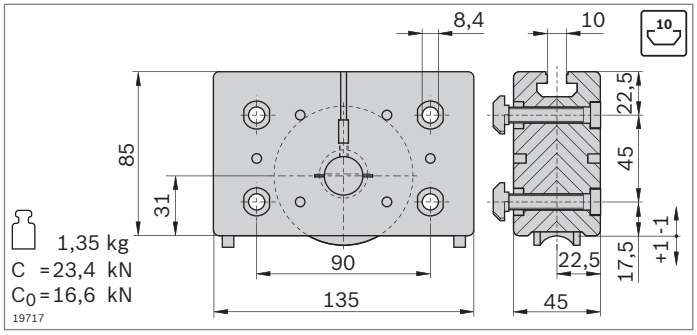
- The guide rod is pressed into the guide profile
- The guide rod guides the guide bearing

Guide rod	L_2 (mm)		No.
LF20	150 ... 2900	1	**3 842 993 969/L_2**
	2900	20	**3 842 539 416**

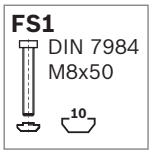
Material: Solid shaft VA, induction hardened, polished
Condition on delivery: Ungreased; greasing according to assembly instructions **3 842 527 226**



- Guide bearing for trolley construction
- Supporting bearing for brackets to withstand off-center forces
- Guide rail to hold supporting bearings (p. 13-34)

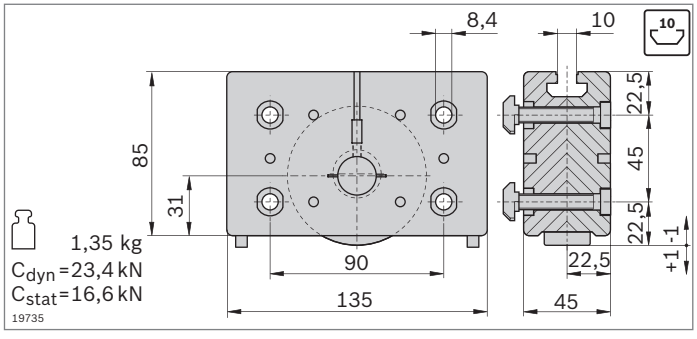


- Guide bearing for trolley construction
- Guiding via guide rod
- Rollers with ball bearings, permanently lubricated
- Lubricating felts with guide rod lubrication reservoir
- Secure roller adjustment via eccentric bolts
- Replacement of the lubricating felts possible from rear in installed state

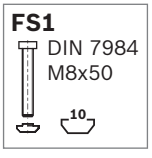


Guide bearing		No.	FS
LF20	2	**3 842 535 663**	4xFS1

Material:	Housing: diecast aluminum Roller: steel, hardened, polished
Scope of delivery:	Incl. fastening material (FS)
Condition on delivery:	Ungreased lubricating felts; greasing according to assembly instructions **3 842 527 226**

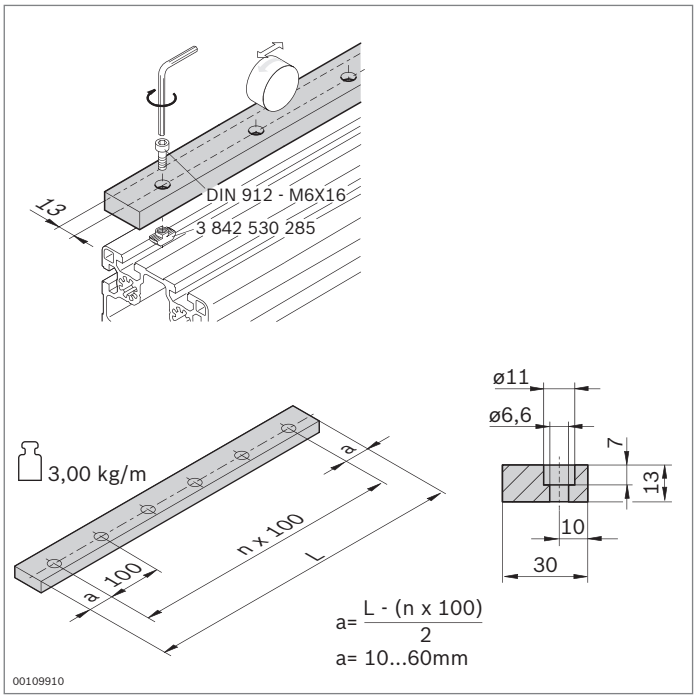


- Supporting bearing for brackets to withstand off-center forces
- For support on the guide rail
- Rollers with ball bearings, permanently lubricated
- Lubricating felts with guide rod lubrication reservoir
- Secure roller adjustment via eccentric bolts
- Replacement of the lubricating felts possible from rear in installed state



Supporting bearings		No.	FS
LF20	2	**3 842 535 665**	4xFS1

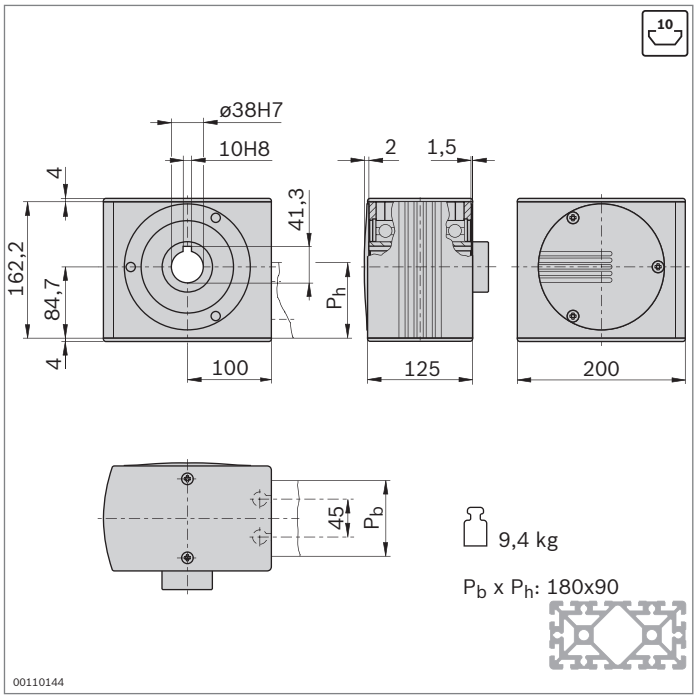
Material:	Housing: diecast aluminum Roller: steel, hardened, polished
Scope of delivery:	Incl. fastening material (FS)
Condition on delivery:	Ungreased lubricating felts; greasing according to assembly instructions **3 842 527 226**



▶ Guide rail to hold supporting bearings

Guide rail	**L** (mm)	**No.**
LF20	120 ... 2000	**3 842 994 702/L**

Material:	Steel, hardened, polished
Condition on delivery:	Ungreased; greasing according to assembly instructions **3 842 527 226**
Accessories:	Cylinder-head screw DIN 912 – M6x16 T-nut M6, 10 mm slot (**3 842 530 285**)

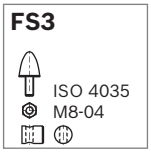


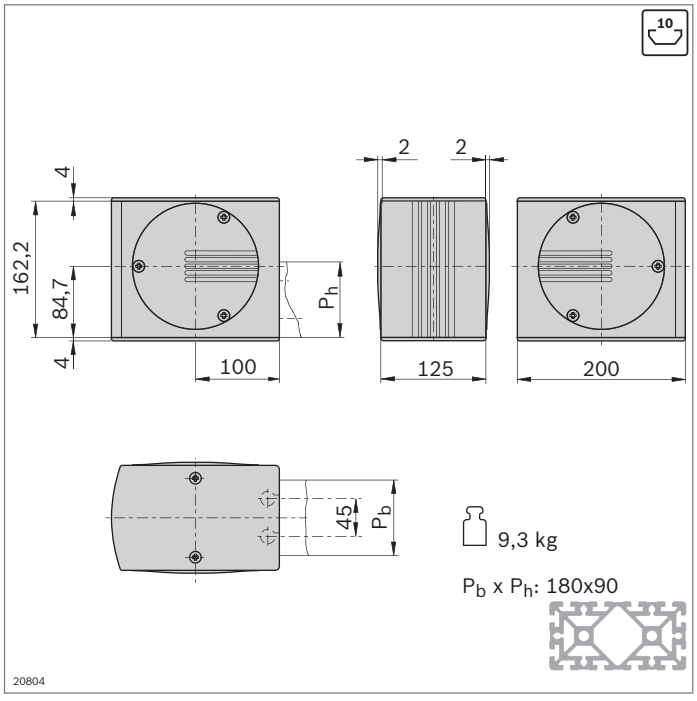
- Drive head for drive torque transfer to a toothed belt
- To directly fit a motor or (in connection with a center shaft) a hollow shaft gear or a coupling
- Mounting with longitudinal end connector directly to profile (connector included in scope of delivery)
- Profile finishing: LF-S blind hole drilling for longitudinal end connector

Drive head	No.	FS
LF20S	**3 842 526 414**	4xFS2, 2xFS3

Material:	Drive head: aluminum, anodized Hollow shaft: steel, galvanized
Scope of delivery:	Including fastening material (FS), caps
Accessories:	Flanges (p. 13-49), gears (p. 13-47), servomotors (p. 13-45)





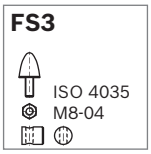


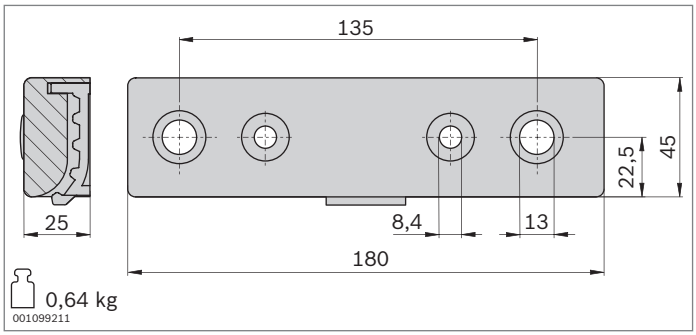
- Return head to tension the toothed belt and change its direction
- Mounting with longitudinal end connector directly to profile (connector included in scope of delivery)
- Profile finishing: LF-S blind hole drilling for longitudinal end connector

Return head	No.	FS
LF20S	**3 842 526 415**	4xFS2, 2xFS3

Material:	Return head: aluminum, anodized Hollow shaft: steel, galvanized Caps: PA, black
Scope of delivery:	Including fastening material (FS), caps







- Belt connector to fix the toothed belt at the end of the trolley
- Profile finish for strut profile 45x270 for trolley LF20S: M12
- All connecting parts included for mounting at the profile end (LF20S) or the slot (LF20C)

Belt connector		No.	FS
LF20	2	**3 842 535 680**	2xFS4, 2xFS5, 2xFS6, 2xFS7, 4xFS8

Material: Aluminum, painted black
Scope of delivery: Incl. fastening material (FS)

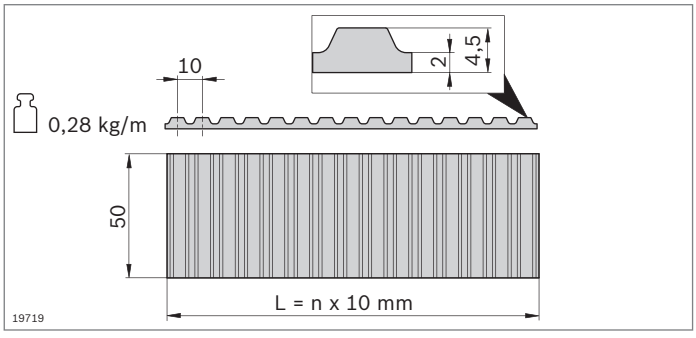
FS4
DIN7984 M12x40

FS5
DIN 7984 M8x30
DIN 125 A8,4
10

FS6
DIN 7991 M8x30
10

FS7
ø18x7

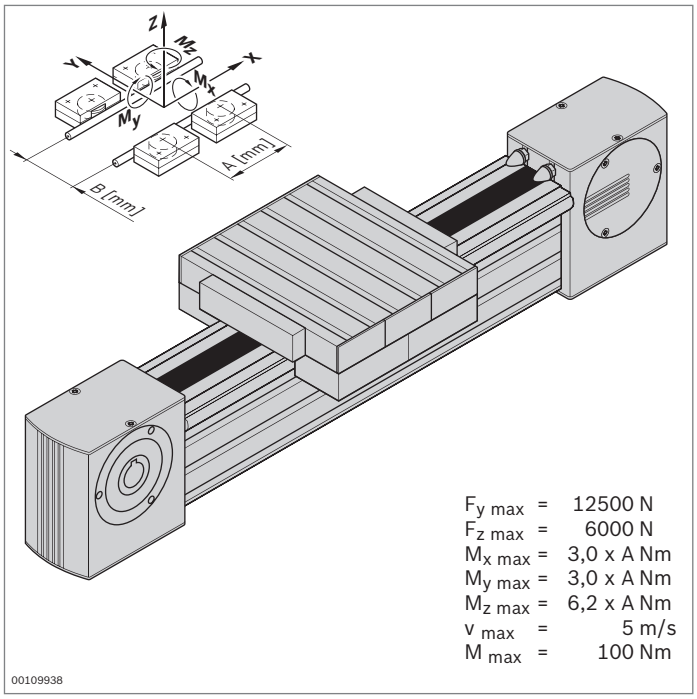
FS8
ø10xø5x11



- Toothed belt as a trolley drive
- Pitch: AT10

Toothed belt	L_3 (mm)	No.
LF20	300 ... 50000	**3 842 994 662/L_3 [1)]**
	50000	**3 842 513 648**

1) $L_3 = 2xL_2 - L_1 + 780$
Material: PU with embedded steel wires



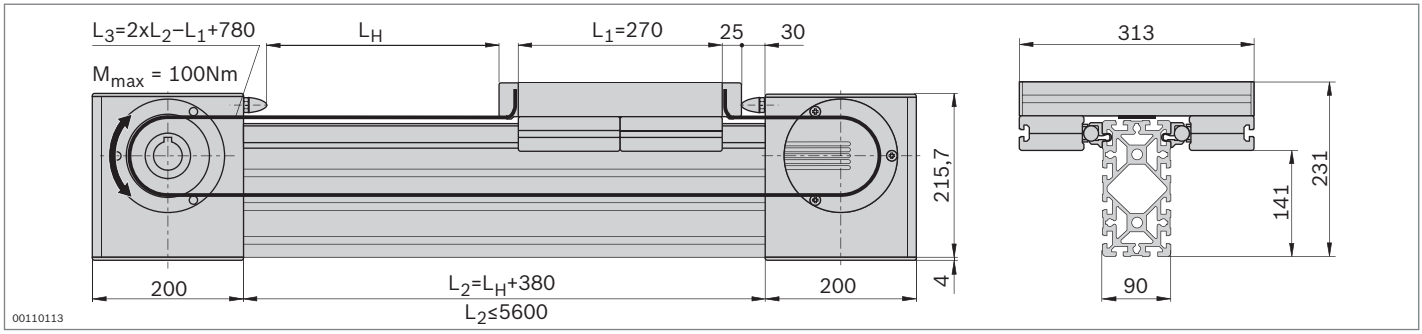
Cam roller guide LF20C – complete axis

10

- Fully assembled cam roller guide
- Stroke can be individually selected
- Clamping profile clipped into strut profile 90x180
- Including toothed belt drive; additional notes on the drive concept (p. 13-44)

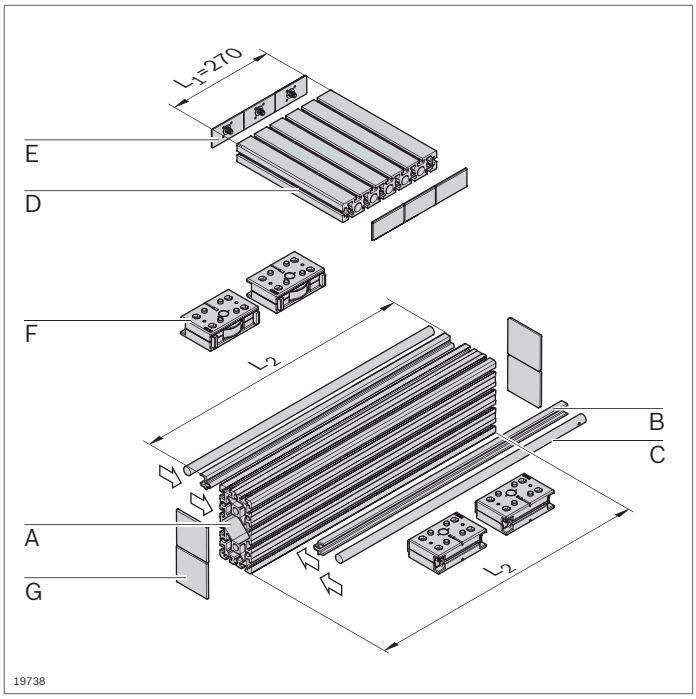
Accessories:

- MSK servomotor (p. 13-45)
- Gear LF20 (p. 13-47)
- Flange LF20 (p. 13-49)
- Switch unit (p. 13-53)
- Actuating elements LF20 (p. 13-54)
- For information on controls, see page 13-48 and the IndraDrive catalog **R911308428**



Complete axis	L_H (mm)	No.
LF20C	50 ... 5220	**3 842 998 500/L_H**

13

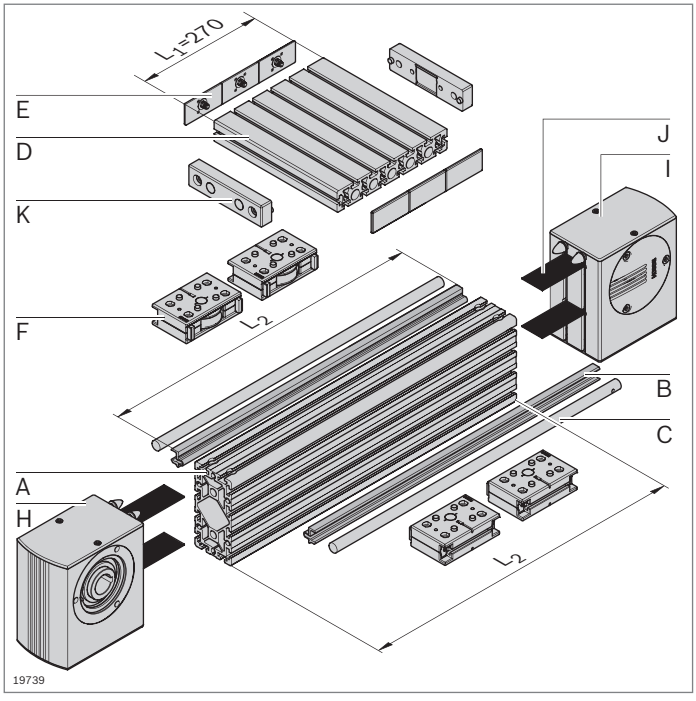


Cam roller guide LF20C – components

▶ Components for the individual assembly of cam roller guides, with or without drive

Parts list for cam roller guide LF20C without drive

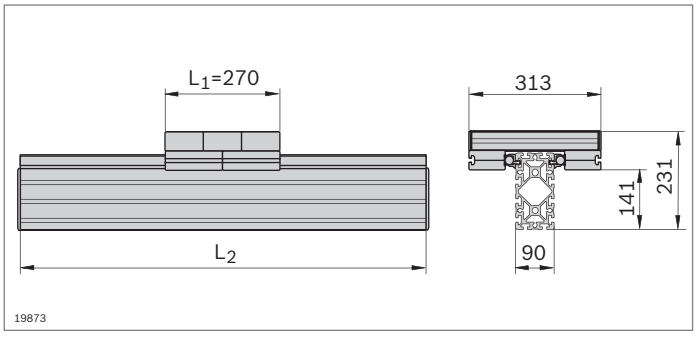
Component		No.	Qty.	Page
A	Profile 90x180	**3 842 990 416/L_2**	1	2-45
B	Clamping profile LF20C	**3 842 992 441/L_2**	2	13-39
C	Guide rod LF20	**3 842 993 969/L_2**	2	13-39
D	Profile 45x270	**3 842 992 927/ 305 mm**	1	2-42
E	Cap 45x90	**3 842 511 783**	6	2-41
F	Guide bearing LF20	**3 842 535 663**	4	13-40
G	Cap 90x90	**3 842 242 400**	4	2-44

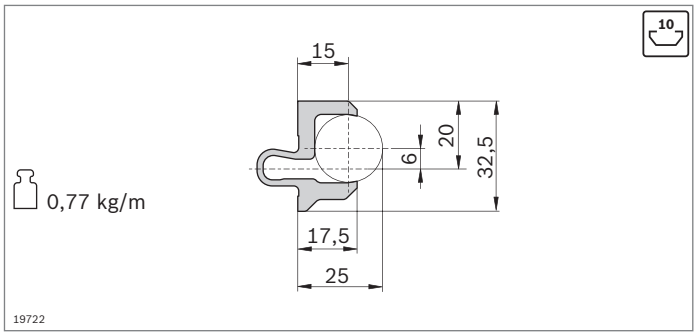


Parts list for cam roller guide LF20C with drive

Component		No.	Qty.	Page
A	Profile 90x180 LF LF	**3 842 992 898/L_2**	1	2-45
B	Clamping profile LF20C	**3 842 992 441/L_2**	2	13-39
C	Guide rod LF20	**3 842 993 969/L_2**	2	13-39
D	Profile 45x270	**3 842 992 927/ 305 mm**	1	2-42
E	Cap 45x90	**3 842 511 783**	6	2-41
F	Guide bearing LF20	**3 842 535 663**	4	13-40
H	Drive head	**3 842 526 867**	1	13-42
I	Return head	**3 842 526 869**	1	13-42
J	Toothed belt	**3 842 994 662/L_3** [1)]	1	13-43
K	Belt connector	**3 842 535 680**	2	13-43

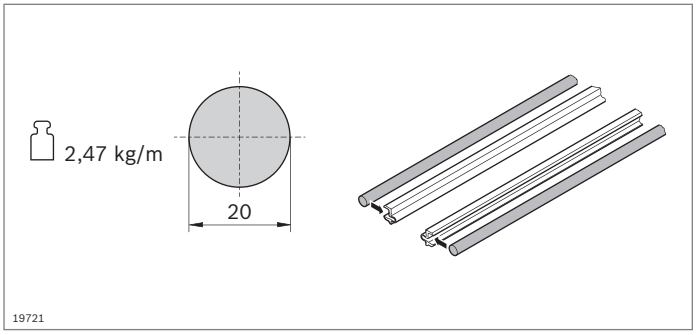
[1)] $L_3 = 2xL_2 - L_1 + 780$





- The clamping profile is clipped into any 10 mm strut profile slot and holds the guide rods

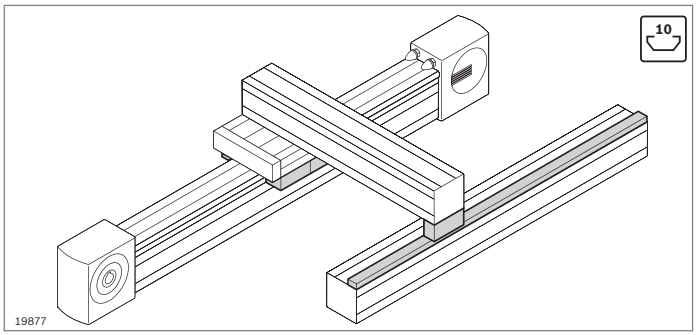
Clamping profile		**L** (mm)	**No.**
LF20C	1 pc	150 ... 3000	**3 842 992 441/L**
	20 pcs	3000	**3 842 518 898**
Material:	Aluminum, anodized		



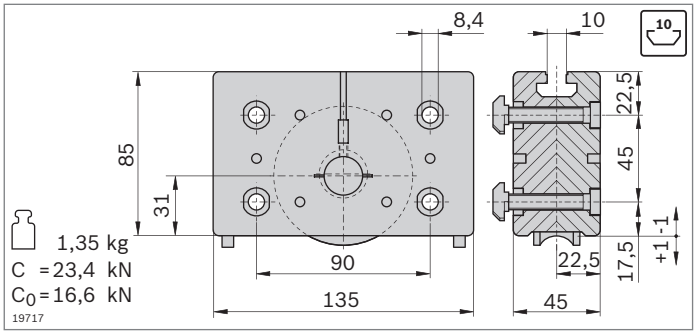
- The guide rod is pressed into the clamping profile
- The guide rod guides the guide bearing

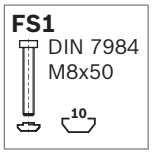
Guide rod	**L** (mm)		**No.**
LF20	150 ... 2900	1	**3 842 993 969/L**
	2900	20	**3 842 539 416**
Material:	Solid shaft VA, induction hardened, polished		
Condition on delivery:	Ungreased; greasing according to assembly instructions **3 842 527 226**		

13



- Guide bearing for trolley construction
- Supporting bearing for brackets to withstand off-center forces
- Guide rail to hold supporting bearings (p. 13-41)

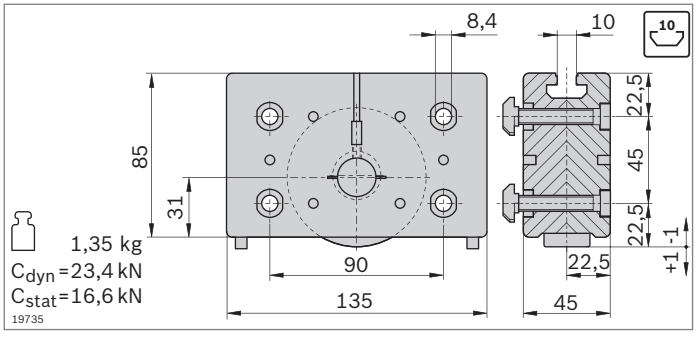


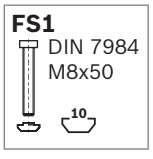


- Guide bearing for trolley construction
- Guiding via guide rod
- Rollers with ball bearings, permanently lubricated
- Lubricating felts with guide rod lubrication reservoir
- Secure roller adjustment via eccentric bolts
- Replacement of the lubricating felts possible from rear in installed state

Guide bearing		No.	FS
LF20	2	**3 842 535 663**	4xFS1

Material:	Housing: diecast aluminum Roller: steel, hardened, polished
Scope of delivery:	Incl. fastening material (FS)
Condition on delivery:	Ungreased lubricating felts; greasing according to assembly instructions **3 842 527 226**

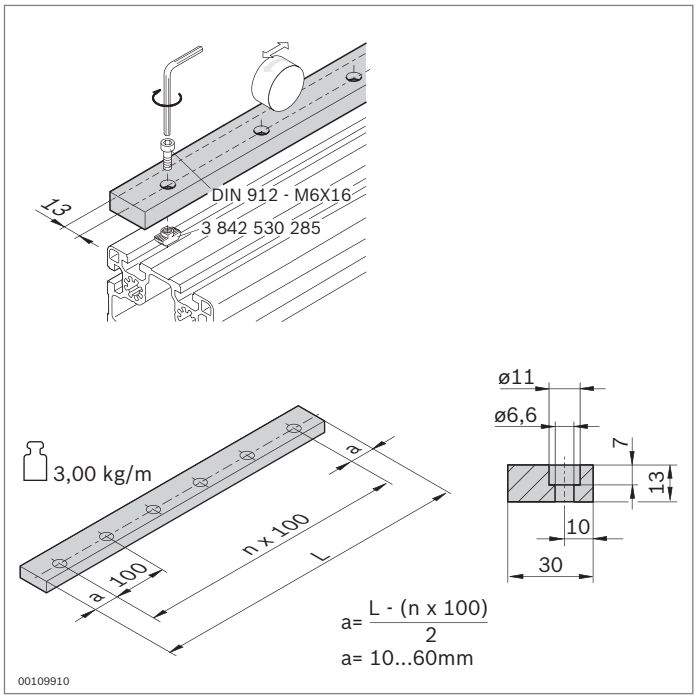




- Supporting bearing for brackets to withstand off-center forces
- For support on the guide rail
- Rollers with ball bearings, permanently lubricated
- Lubricating felts with guide rod lubrication reservoir
- Secure roller adjustment via eccentric bolts
- Replacement of the lubricating felts possible from rear in installed state

Supporting bearings		No.	FS
LF20	2	**3 842 535 665**	4xFS1

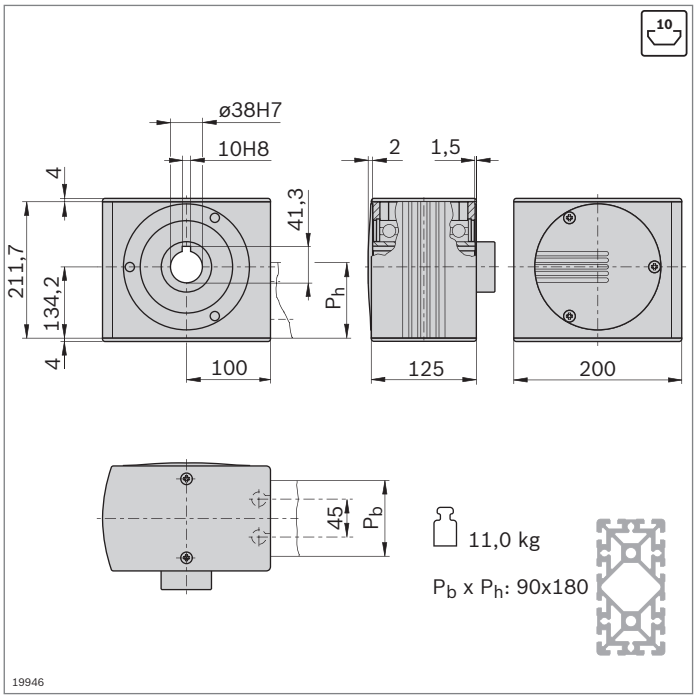
Material:	Housing: diecast aluminum Roller: steel, hardened, polished
Scope of delivery:	Incl. fastening material (FS)
Condition on delivery:	Ungreased lubricating felts; greasing according to assembly instructions **3 842 527 226**



▶ Guide rail to hold supporting bearings

Guide rail	**L** (mm)	**No.**
LF20	120 ... 2000	**3 842 994 702/L**

Material:	Steel, hardened, polished
Accessories:	Cylinder-head screw DIN 912 – M6x16 T-nut M6, 10 mm slot (**3 842 530 285**)
Condition on delivery:	Ungreased; greasing according to assembly instructions **3 842 527 226**



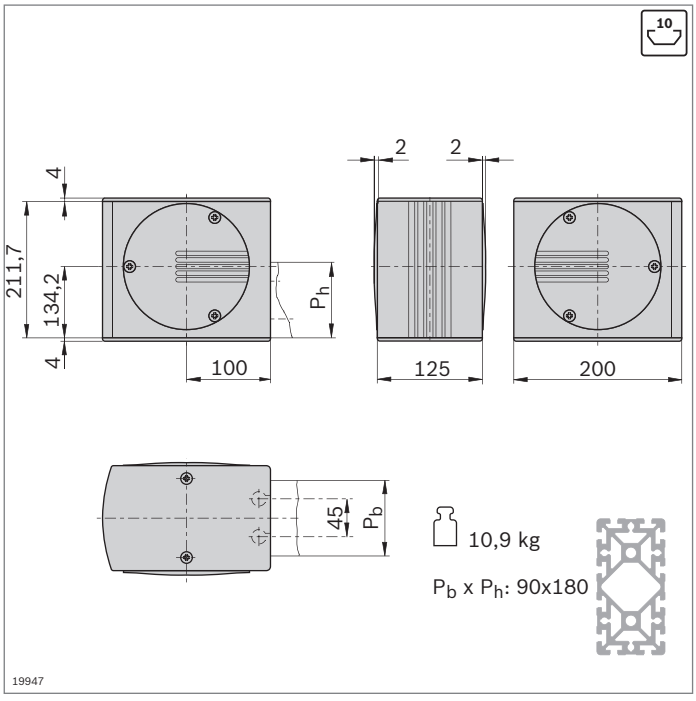
- Drive head for drive torque transfer to a toothed belt
- To directly fit a motor or (in connection with a center shaft) a hollow shaft gear or a coupling
- Mounting with longitudinal end connector directly to profile (connector included in scope of delivery)
- Profile finishing: LF blind hole drilling for longitudinal end connector

Drive head	No.	FS
LF20C	**3 842 526 867**	4xFS2, 2xFS3

Material:	Drive head: aluminum, anodized Hollow shaft: steel, galvanized
Scope of delivery:	Including fastening material (FS), caps
Accessories:	Flanges (p. 13-49), gears (p. 13-47), servomotors (p. 13-45)

FS2
ISO 7380
M8x40

FS3
ISO 4035
M8-04



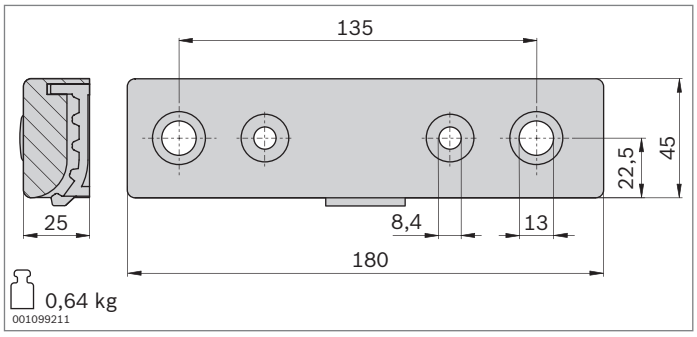
- Return head to tension the toothed belt and change its direction
- Mounting with longitudinal end connector directly to profile (connector included in scope of delivery)
- Profile finishing: LF blind hole drilling for longitudinal end connector

Return head	No.	FS
LF20C	**3 842 526 869**	4xFS2, 2xFS3

Material:	Return head: aluminum, anodized Hollow shaft: steel, galvanized Caps: PA, black
Scope of delivery:	Including fastening material (FS), caps

FS2
ISO 7380
M8x40

FS3
ISO 4035
M8-04



- Belt connector to fix the toothed belt at the trolley slot
- Profile finish for strut profile 45x270 for trolley LF20S: M12
- All connecting parts included for mounting at the profile end (LF20S) or the slot (LF20C)

Belt connector		No.	FS
LF20	2	**3 842 535 680**	2xFS4, 2xFS5, 2xFS6, 2xFS7, 4xFS8

Material: Aluminum, painted black
Scope of delivery: Incl. fastening material (FS)

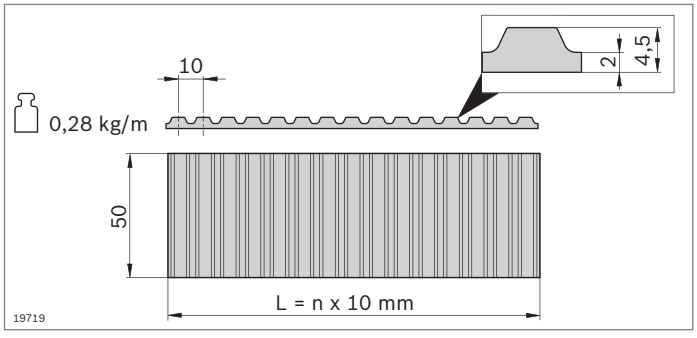
FS4
DIN7984 M12x40

FS5
DIN 7984 M8x30
DIN 125 A8,4
10

FS6
DIN 7991 M8x30
10

FS7
ø18x7

FS8
ø10xø5x11

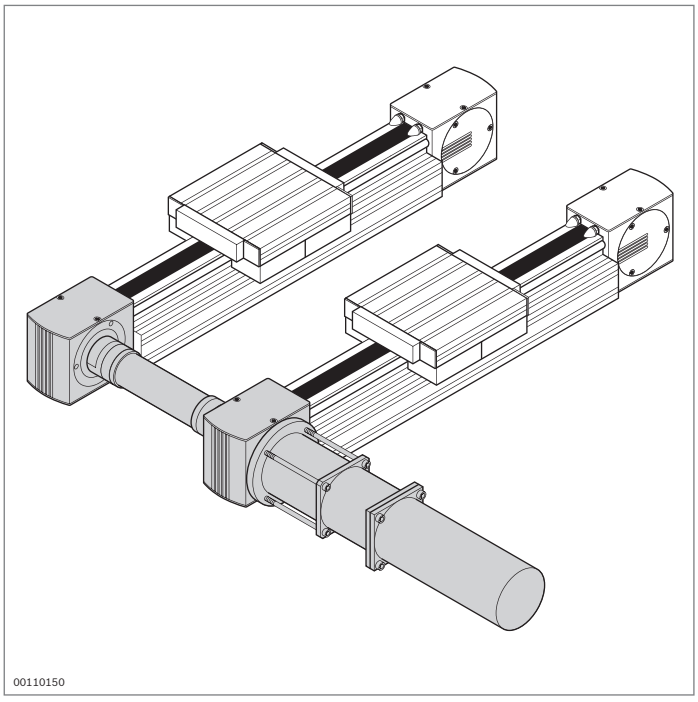


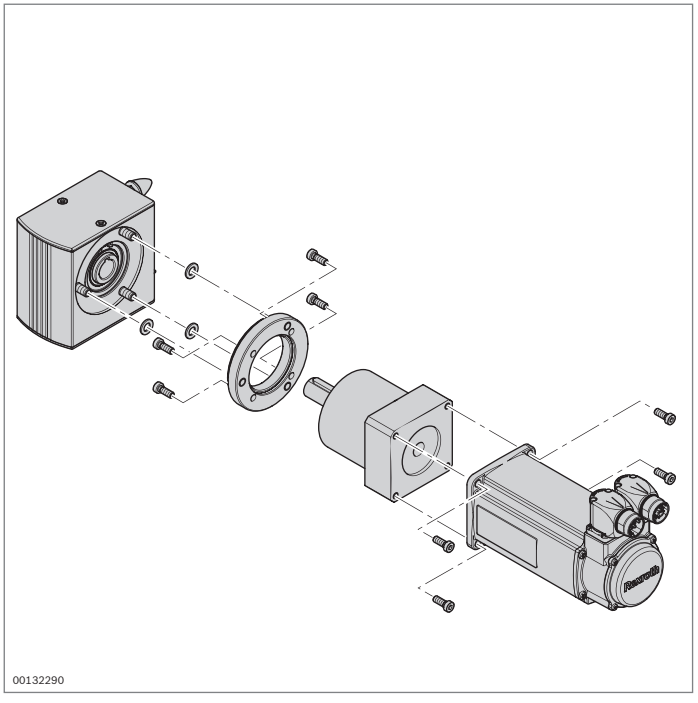
- Toothed belt as a trolley drive
- Pitch: AT10

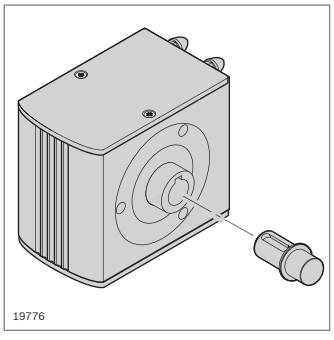
Toothed belt	L (mm)	No.
LF20	300 ... 50000	**3 842 994 662/L_3**[1)]
	50000	**3 842 513 648**

[1)] $L_3 = 2xL_2 - L_1 + 780$
Material: PU with embedded steel wires

13







Linear guide drives

Drive concept

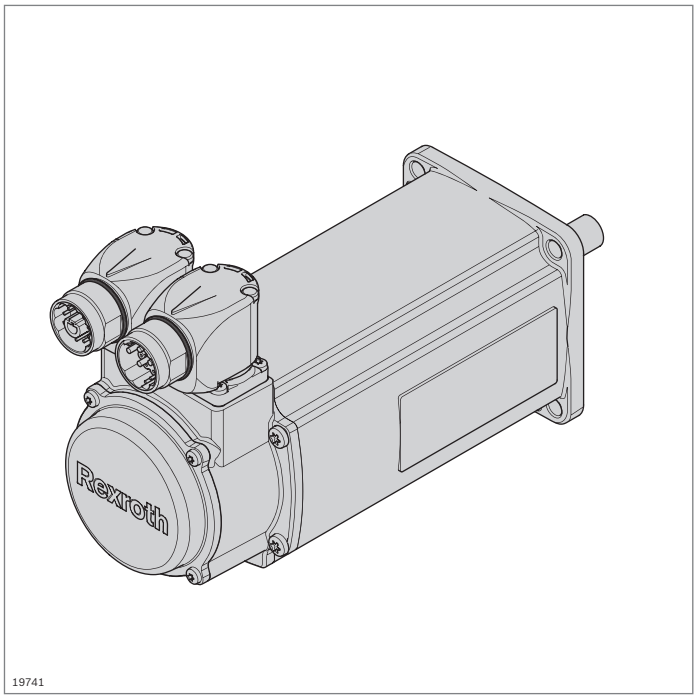
Linear guides are driven via the hollow shaft in the drive head. The drive head is used to directly fit a motor or (in connection with a center shaft) a hollow shaft gear or a coupling. According to the desired speeds of movement for the application, it is necessary to use various motor types in conjunction with intermediate gears. Due to the multitude of drive components available on the market, there are a large number of possible combinations.
On the following pages we have selected the suitable accessories for each size: motors, gears, flanges, inductive/ mechanical switches, brackets and actuating elements.

Connection

The drive head is directly secured on the profile with longitudinal end connectors.
The motor, or the intermediate gear flange, can be fitted as a complete unit with the drive head from the inside, from left or from right.

Synchronous shafts

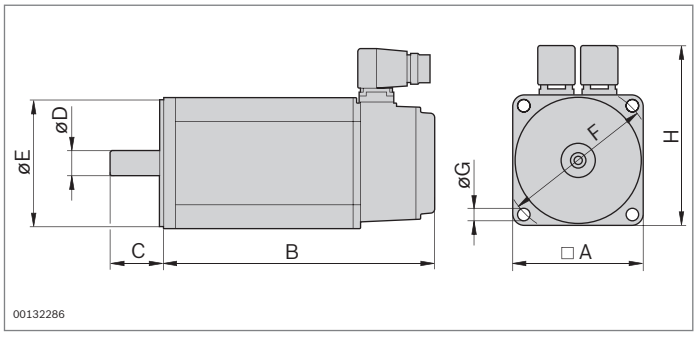
By using synchronous shafts (p. 13-51), several linear axes can be operated with one drive.



19741

MSK servomotors

The MSK motor series stands out with its broad performance range and fine size graduation. The high torque density of these synchronous servomotors enables a particularly compact design with maximum torques up to 230 Nm. Additional technical details for the motors shown here can be found in the “Technical data” section.
The servomotors listed here are designed for applications with our cam roller guides.
The MSK servomotors are equipped with an absolute multi-turn encoder (Hiperface, 128 increments with 4096 rotations), smooth motor shafts, and no brakes.
To achieve the optimal drive configuration for an individual application, as well as for the selection of additional motor parameters, we recommend that you contact our sales consultants. You will find additional information on the motors in the latest IndraDrive catalog **R911308428**.



00132286

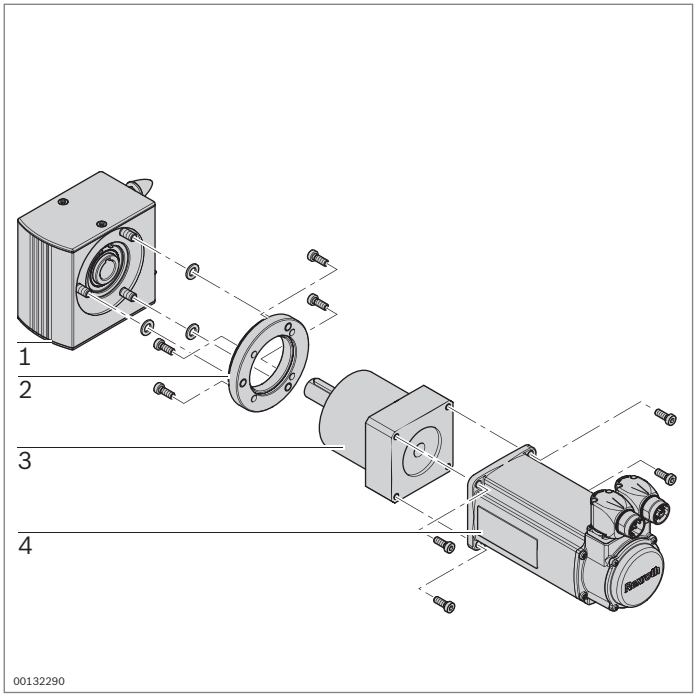
		Unit	MSK 040C	MSK 050B	MSK 060C	MSK 070C	MSK 070E	MSK 100B
BRC part number			**R911 306 060**	**R911 299 935**	**R911 307 219**	**R911 299 754**	**R911 316 908**	**R911 315 705**
Maximum usable speed[1)]	n_{max}	min^{-1}	7500	6000	4900	6000	5300	4750
Nominal torque	M_N	Nm	2.7	3.0	8.0	13.0	23.0	28.0
Maximum torque	M_{max}	Nm	8.1	9.0	24.0	33.0	60.0	102.0
Continuous current at standstill	I_0	A	3.1	3.7	4.8	12.3	15.4	17.4
Maximum current	I_{Max}	A	12.4	14.8	19.2	36.9	46.3	78.3
Moment of inertia	J_R	10^{-6} kgm^2	140	280	800	2910	4580	19200
Mass	m	kg	3.6	4.0	8.4	11.7	16.2	34.0

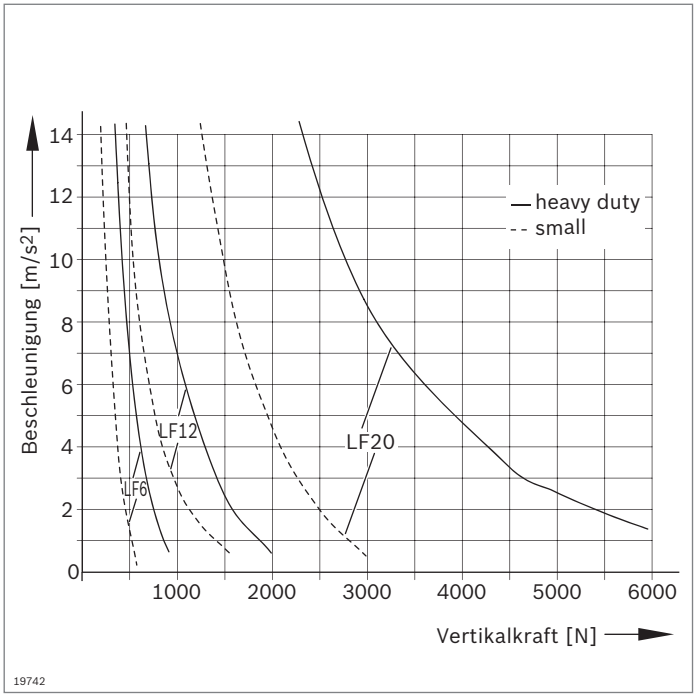
[1)] n_{max} = 19200 rpm at 750 V intermediate circuit voltage

Motor data for servomotors

Motor type	**A** (mm)	**B** (mm)	**C** (mm)	**Ø D** (mm)	**Ø E** (mm)	**Ø F** (mm)	**Ø G** (mm)	**H** (mm)
MSK 040C	82	185.5	30	14	50	95	6.6	124.5
MSK 050B	98	173.0	40	19	95	115	9.0	134.5
MSK 060C	116	226.0	50	24	95	130	9.0	156.0
MSK 070C	140	238.0	58	32	130	165	11.0	202.0
MSK 070E	140	298.0	58	32	130	165	11.0	202.0
MSK 100B	192	368.0	60	32	130	215	11.0	211.5

Selection help – recommended combinations



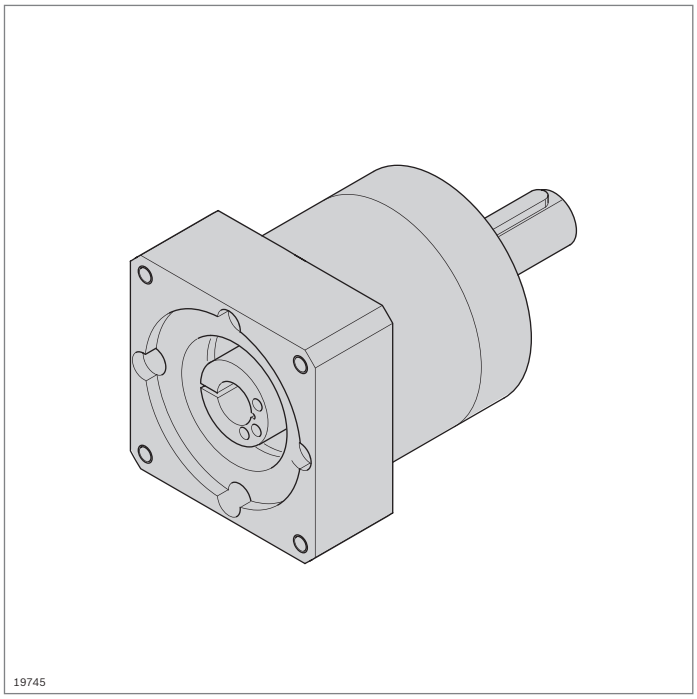


The diagram specifies the potential acceleration for horizontal applications based on the vertical force F_z, the linear guide size, and the drive version (**heavy duty**, **small**). This allows you to preselect the best axis for your application.

Linear guides

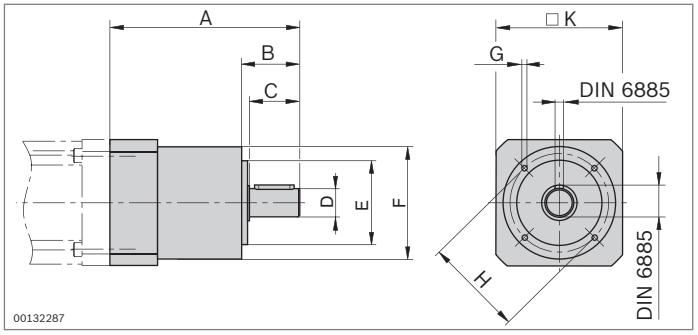
You can quickly and conveniently find the suitable accessories for the axis you have selected with the Table provided here.

Model	Drive version	1 Complete axis No.	2 Flange No.	3 Gear No.	Drive No.	4 Motor designation
LF6S	small	**3 842 998 495**	**3 842 539 382**	**3 842 540 018**	**R 911 306 060**	MSK040C-0600
	heavy duty	**3 842 998 495**	**3 842 539 383**	**3 842 540 019**	**R 911 299 935**	MSK050B-0600
LF6C	small	**3 842 998 496**	**3 842 539 382**	**3 842 540 018**	**R 911 306 060**	MSK040C-0600
	heavy duty	**3 842 998 496**	**3 842 539 383**	**3 842 540 019**	**R 911 299 935**	MSK050B-0600
LF12S	small	**3 842 998 497**	**3 842 539 384**	**3 842 540 020**	**R 911 307 219**	MSK060C-0300
	heavy duty	**3 842 998 497**	**3 842 539 385**	**3 842 540 021**	**R 911 299 754**	MSK070C-0450
LF12C	small	**3 842 998 498**	**3 842 539 384**	**3 842 540 020**	**R 911 307 219**	MSK060C-0300
	heavy duty	**3 842 998 498**	**3 842 539 385**	**3 842 540 021**	**R 911 299 754**	MSK070C-0450
LF20S	small	**3 842 998 499**	**3 842 539 386**	**3 842 540 022**	**R 911 316 908**	MSK070E-0300
	heavy duty	**3 842 998 499**	**3 842 539 387**	**3 842 540 023**	**R 911 315 705**	MSK100B-0300
LF20C	small	**3 842 998 500**	**3 842 539 386**	**3 842 540 022**	**R 911 316 908**	MSK070E-0300
	heavy duty	**3 842 998 500**	**3 842 539 387**	**3 842 540 023**	**R 911 315 705**	MSK100B-0300



Gear

- Matching planetary gear for each size
- Simple mounting on the drive head using a flange
- The gear output shaft matches the inner cross-section of the hollow shaft in the drive head, making a coupling unnecessary
- **Small** version for lightweight applications
- **Heavy duty** version for tough applications



Model	Drive version	Motor	Gear No.	A (mm)	B (mm)	K (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)	H (mm)
LF6	small	MSK040C	**3 842 540 018**	143.5	50	□80	46	Ø 19h7	Ø 60h7	Ø 80	M6x15	Ø 95
LF6	heavy duty	MSK050B	**3 842 540 019**	176.5	55	□115	50	Ø 19h7	Ø 80h7	Ø 115	M8x20	Ø 115
LF12	small	MSK060C	**3 842 540 020**	196.5	65	□115	60	Ø 28h7	Ø 80h7	Ø 115	M8x20	Ø 130
LF12	heavy duty	MSK070C	**3 842 540 021**	263.5	87	□140	80	Ø 28h7	Ø 130h7	Ø 160	M10x25	Ø 165
LF20	small	MSK070E	**3 842 540 022**	263.5	87	□140	80	Ø 38h7	Ø 130h7	Ø 160	M10x25	Ø 165
LF20	heavy duty	MSK100B	**3 842 540 023**	245.6	85	□190	82	Ø 38h7	Ø 130h6	□ 141	M12x29	Ø 215

Performance data

	Unit	3 842 540 018	3 842 540 019	3 842 540 020	3 842 540 021	3 842 540 022	3 842 540 023
Max. input rpm	rpm	4000	3500	3500	3500	3000	2000
Nominal output torque	Nm	50	100	100	100	300	420
Mass moment of inertia	kg cm²	0.52	1.79	1.79	7.78	7.78	6.75
Ratio	i	4	4	4	4	4	4
Torsion play	arc min.	<9	<8	<8	<6	<6	<4
Service life	H	30000	30000	30000	30000	30000	20000
Lubrication		Lifetime lubrication, closed system					
Permissible ambient temperature	°C	0...+40	0...+40	0...+40	0...+40	0...+40	0...+40
Noise level	dB (A)	≤60	≤65	≤65	≤70	≤70	≤72
Mass	kg	2.1	6.0	6.0	18	18	11.5



Information on drive control

Complete hardware and software, safe application, and intelligent functions.
With IndraDrive and IndraDyn you can solve your automation tasks economically, intelligently, and future-proof – no matter what industry you call home.
Additional information on control components can be found in the Rexroth IndraDrive catalog **R911308428**.

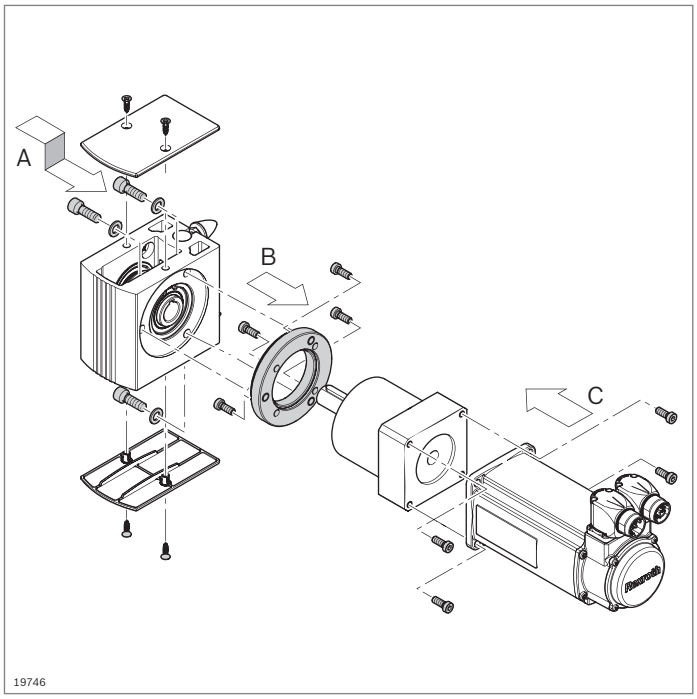
			small			heavy duty		
		No.	**LF6**	**LF12**	**LF20**	**LF6**	**LF12**	**LF20**
Converter:								
IndraDrive compact converter, single axis	HCS02. 1E-W0012-A-03-NNNN	**R 911 298 371**	•			•		
	HCS02. 1E-W0028-A-03-NNNN	**R 911 298 374**		•	•		•	
	HCS02. 1E-W0054-A-03-NNNN	**R 911 298 373**						•
Cable:								
Power cable, ready-to-use 5 m	RKL4303/005.0	**R 911 310 652**	•					
	RKL4302/005.0	**R 911 310 648**		•		•		
	RKL4306/005.0	**R 911 310 655**			•		•	
	RKL4321/005.0	**R 911 310 460**						•
Sensor cable, ready-to-use 5 m	RKG4200/005,0	**R 911 310 645**	•	•	•	•	•	•

Control module for converter

		No.
IndraDrive control module BASIC, single axis	CSB01.1C-PB-ENS-NNN-NN-S-NN-FW	**R 911 305 278**
IndraDrive firmware	FWA-INDRV-MPB-04VRS-D5-1-NNN-NN	**R 911 312 231**
Program module	PFM02.1-016-FW	**R 911 296 958**

Control

		No.
IndraDrive controller L40	CML40.1-NP-220-NA-NNNN-NW	**1 070 170 261**
L40 firmware	FWA-CML40*-IL*02VRS-D0-0008-NNN-NN	**R 911 309 170**
Interface module L40	R-IB IL CML S01-PLSET	**R 911 299 856**



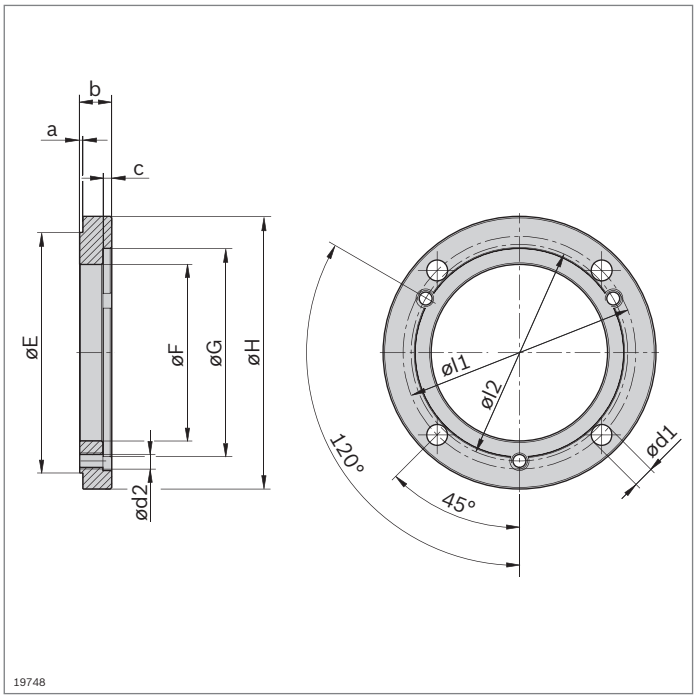
Flange

Every gear is designed so that its output shaft fits directly into the hollow shaft of the drive head. Intermediate couplings are not required - flat adapter flanges can be used.
Small version for lightweight applications, **heavy duty** for tough applications.

Fastening material for drive components

small	**LF6**	**LF12**	**LF20**
A Drive head – flange	ISO 4762 – M8x22	ISO 4762 – M8x25	ISO 4762 – M10x30
	ISO 7092 – 8	ISO 7092 – 8	ISO 7092 – 10
B Flange – gear	ISO 4762 – M6x16	ISO 4762 – M10x20	DIN 7984 – M12x25
C Gear – motor	ISO 4762 – M6x20	ISO 4762 – M8x25	ISO 4762 – M10x40
Material: Steel, nickel-plated			

heavy duty	**LF6**	**LF12**	**LF20**
A Drive head – flange	ISO 4762 – M8x22	ISO 4762 – M8x25	ISO 4762 – M10x30
	ISO 7092 – 8	ISO 7092 – 8	ISO 7092 – 10
B Flange – gear	ISO 4762 – M10x20	DIN 7984 – M12x25	ISO 4762 – M10x30
C Gear – motor	ISO 4762 – M8x20	ISO 4762 – M10x40	ISO 4762 – M12x35
Material: Steel, nickel-plated			



Flange

Small flange	No.
LF6	3 842 539 382
LF12	3 842 539 384
LF20	3 842 539 386

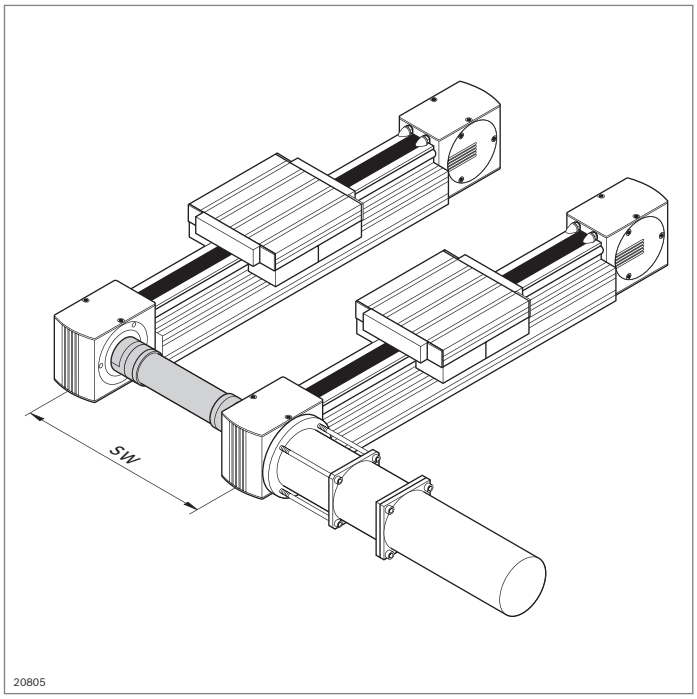
Heavy duty flange	No.
LF6	3 842 539 383
LF12	3 842 539 385
LF20	3 842 539 387

Small flange

Dimension parameter	Unit	LF6	LF12	LF20
a	mm	3.5 ± 0.15	3.5 ± 0.15	2 ± 0.15
b	mm	14.5	20	20
c	mm	3.5 +0.3	–	5.5 +0.3
E	mm	Ø 88 -0.1/-0.3	Ø 111 -0.1/-0.3	Ø 150 -0.1/-0.3
F	mm	Ø 55	Ø 80	Ø 110
G	mm	Ø 60 H7	Ø 80 H7	Ø 130 H7
H	mm	Ø 94	Ø 120	Ø 170
l1	mm	Ø 70	Ø 100	Ø 145
l2	mm	Ø 78	Ø 100	Ø 135
d1	mm	Ø 6.6	Ø 10.5	Ø 13
d2	mm	M8	M8	M10
m	kg	0.441	0.81	1.52

Heavy duty flange

Dimension parameter	Unit	LF6	LF12	LF20
a	mm	3.5 ± 0.15	3.5 ± 0.15	2 ± 0.15
b	mm	20	20	45
c	mm	5 +0.3	5.5 +0.3	30.5 +0.3
E	mm	Ø 88 -0.1/-0.3	Ø 111 -0.1/-0.3	Ø 150 -0.1/-0.3
F	mm	Ø 65	Ø 80	Ø 110
G	mm	Ø 80 H7	Ø 130 H7	Ø 130 H7
H	mm	Ø 119	Ø 169	Ø 185
l1	mm	Ø 100	Ø 145	Ø 165
l2	mm	Ø 78	Ø 100	Ø 135
d1	mm	Ø 10.5	Ø 13	M10
d2	mm	M8	M8	M10
m	kg	0.91	1.98	4.94



Center shafts, synchronous shafts

Center shafts

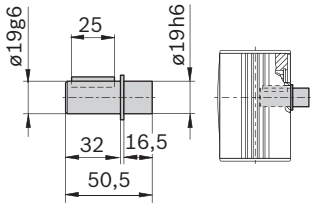
- Enables the installation of individual drive solutions

Center shaft	No.
LF6	**3 842 526 893**
LF12	**3 842 526 894**
LF20	**3 842 526 895**

Material: Steel, galvanized

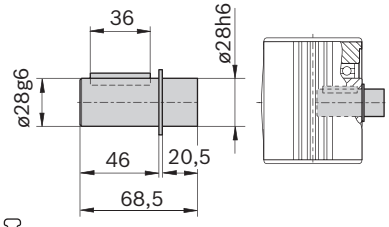
SW = Support separation

LF6



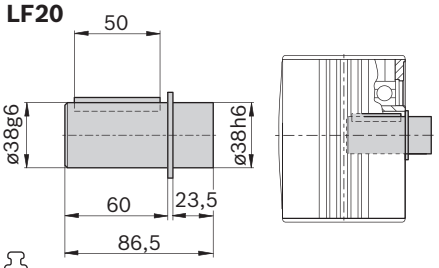
0,11 kg

LF12



0,33 kg

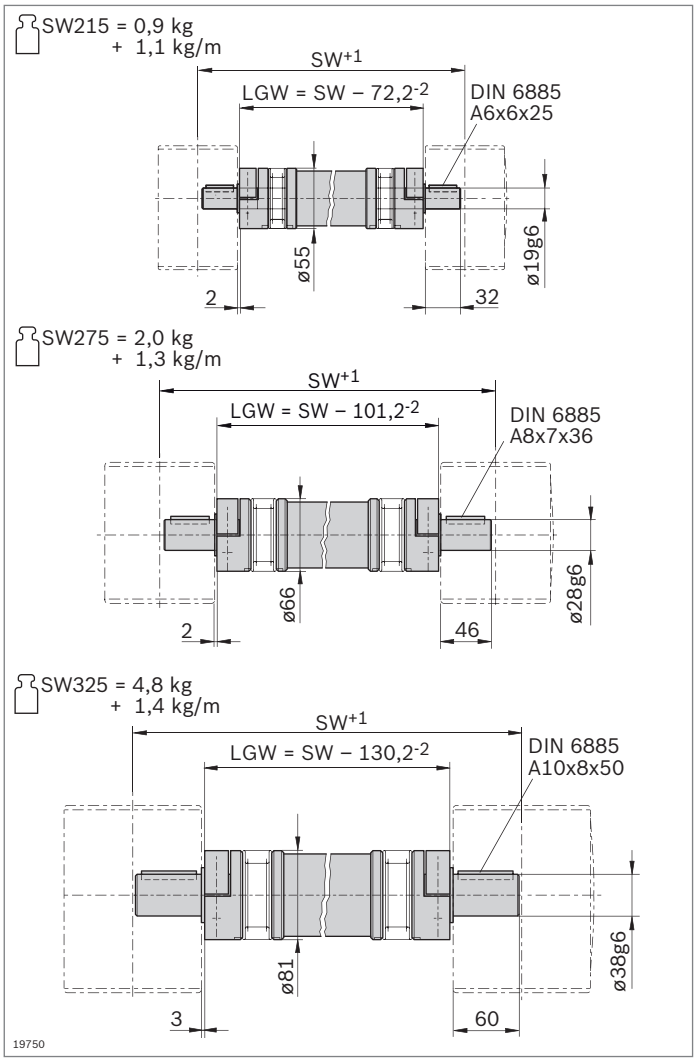
LF20



0,77 kg

19749

13



SW = Support separation
LGW = Long synchronous shaft

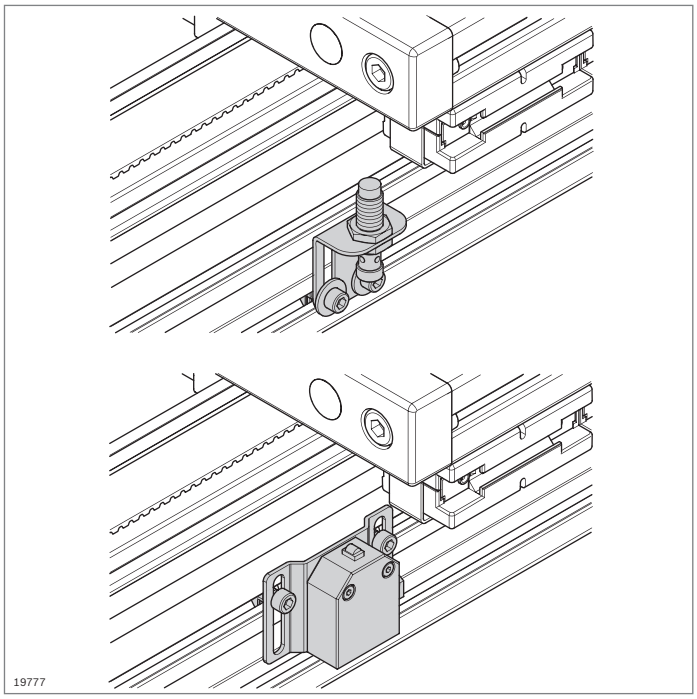
Synchronous shafts

- Allow several linear guides to be driven synchronously by a common motor
- Synchronous shafts can be replaced without disassembling the drive heads

The selection diagrams on pages 13-60 and 13-61 specify maximum values without safety margins.

Synchronous shaft	**SW** (mm)	**No.**
LF6	215 ... 3000	**3 842 994 811/SW**
LF12	275 ... 3500	**3 842 994 812/SW**
LF20	325 ... 3500	**3 842 994 813/SW**

Material: Steel, galvanized

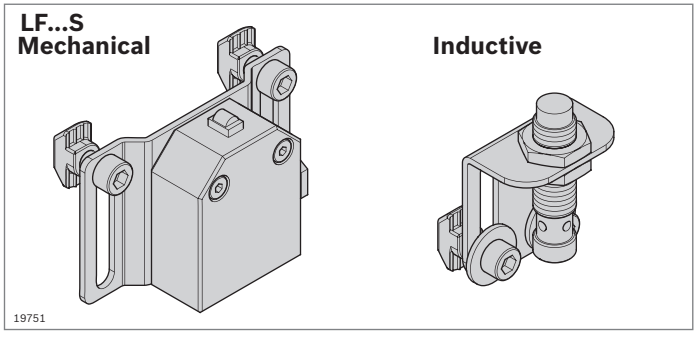


Switch unit, actuating element

- Inductive and mechanical switch

Switch unit

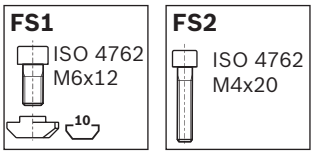
- The brackets for the switches are fitted on the support profile
- The switch unit fits all sizes
- The mechanical switch is only for use as a safety shut-off after overrunning the end position

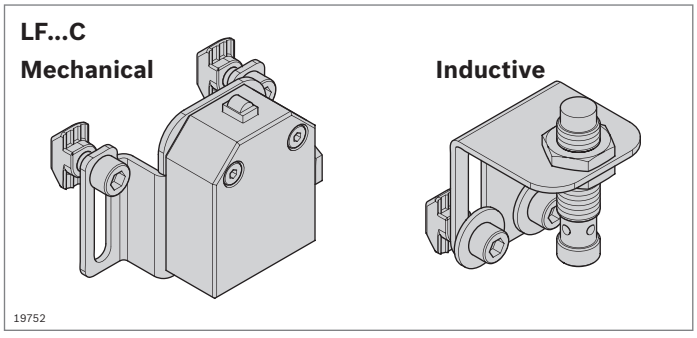


Switch unit LF...S	No.	FS
Inductive	**3 842 539 520**	2xFS1
Mechanical	**3 842 539 522**	2xFS1, 2xFS2

Material: Brackets: steel, galvanized

Scope of delivery: Proximity switch, inductive, or mechanical switch (p. 13-55); holder; fastening material (FS)

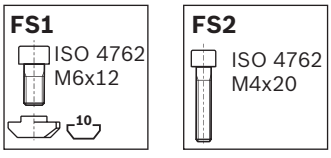




Switch unit LF...C	No.	FS
Inductive	**3 842 539 521**	2xFS1
Mechanical	**3 842 539 523**	2xFS1, 2xFS2

Material: Brackets: steel, galvanized

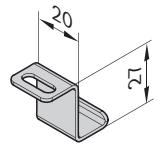
Scope of delivery: Proximity switch, inductive, or mechanical switch (p. 13-55); holder; fastening material (FS)



Actuating element

- The actuating elements are fixed to the respective belt connector

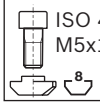
LF6S/C



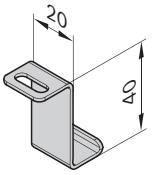
00132242

Actuating element		No.	FS
LF6S/C		**3 842 539 367**	1xFS3
Material:	Steel, galvanized		

FS3



LF12S/C



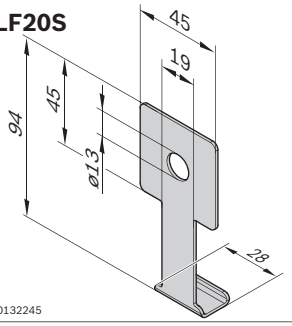
00132243

Actuating element		No.	FS
LF12S/C		**3 842 539 368**	1xFS4
Material:	Steel, galvanized		

FS4



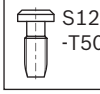
LF20S



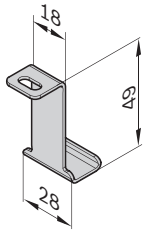
00132245

Actuating element		No.	FS
LF20S		**3 842 539 370**	1xFS5
Material:	Steel, galvanized		

FS5



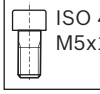
LF20C

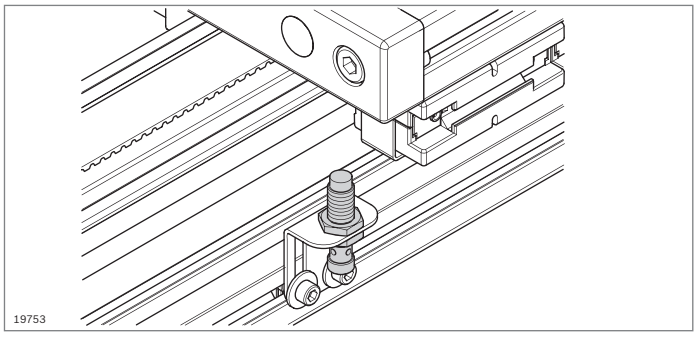


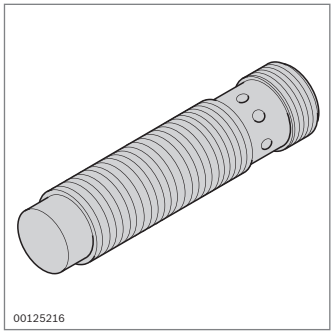
00132244

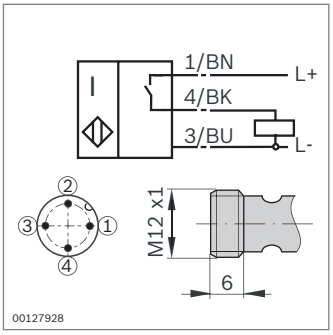
Actuating element		No.	FS
LF20C		**3 842 539 369**	1xFS4
Material:	Steel, galvanized		

FS4







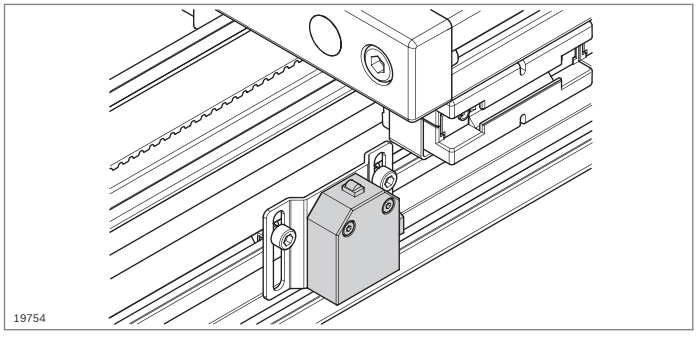


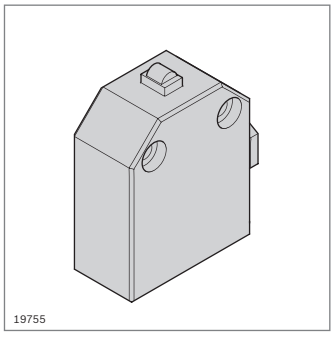
Switch

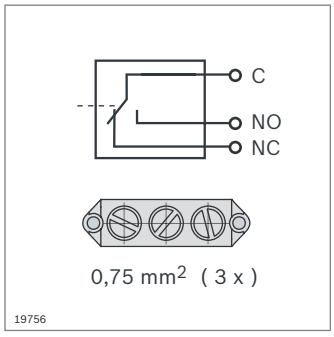
Proximity switch, inductive

- NO PNP according to IEC/EN 60947-5-2-2004
- Connection via V1 plug (M12)
- Suitable for installation in switch bracket with integrated stop
- Resistant to media such as test oil and test fuel
- Optical LED function display
- Gold-plated contacts
- Compact length of 50 mm
- Metal thread M12x1
- Switch distance S_N = 7 mm
- Operating voltage: 0 to 30 V
- Switching frequency: 300 Hz
- Operating current: 150 mA
- No-load current: max. 15 mA
- Protection class: IP 67
- Ambient temperature: -25 to 70 °C

Proximity switch	No.
	3 842 537 995







Switch, mechanical

- Single-pole change-over contact, connection for cable fitting M12x1.5
- Gold-plated contacts, screw-in connection
- Continuous current: 5 A
- Operating voltage: 250 V AC
- Switching frequency: 3 Hz
- Isolation: group C according to VDE 0110
- Protection class: IP67
- Ambient temperature: -25 to 70 °C
- Starting speed: 0.5 m/s
- Switch distance: 2.5 + 0.2 mm

Technical data for cam roller guides, design notes, mounting instructions

General technical data and calculations

Travel speed

$v_{max} = 5$ m/s

Acceleration

$a_{max} = 15$ m/s²

Temperature resistance

$-10°C < \vartheta < 40°C$

Lubrication

All cam roller guide ball bearings are delivered with ready-mounted lubrication felts.

Condition on delivery

Ungreased (greasing with Klüber Isoflex Topas NCA 52; see assembly instructions **3 842 527 226**)
Ungreased lubricating felts with reservoir
Ungreased guide rods

Definition of dynamic load capacity C

The radial loading of constant magnitude and direction which a linear rolling bearing can theoretically endure for a nominal life of 100 km distance traveled (acc. to ISO 14728 Part 1).

Note on maximum load F_{max}

The maximum loads apply for individual loads. Combining loads decreases the expected service life.

Definition and calculation of nominal life

The calculated service life which an individual linear rolling bearing, or a group of apparently identical rolling element bearings operating under the same conditions, can attain with a 90% probability, with contemporary, commonly used materials and manufacturing quality under conventional operating conditions (acc. to ISO 14728 Part 1) and optimal installation conditions.

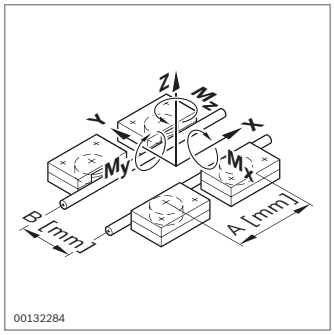
Nominal life at constant speed

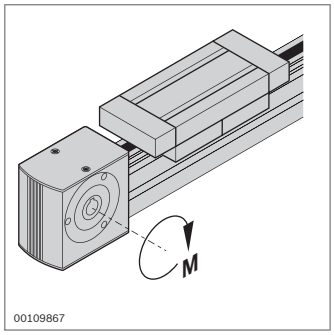
$$L = \left(\frac{C}{F}\right)^3 \cdot 10^5$$

$$L_h = \left(\frac{L}{2 \cdot s \cdot n_s \cdot 60}\right)$$

L = nominal life (m)
L_h = nominal life (h)
C = dynamic load capacity (N)
F = equivalent load (N)
s = length of stroke* (m)
n_S = stroke repetition rate (full cycles) (rpm)

*) The load capacities are reduced for $s < 2 \times L_1$ (long trolleys).
Please consult us.





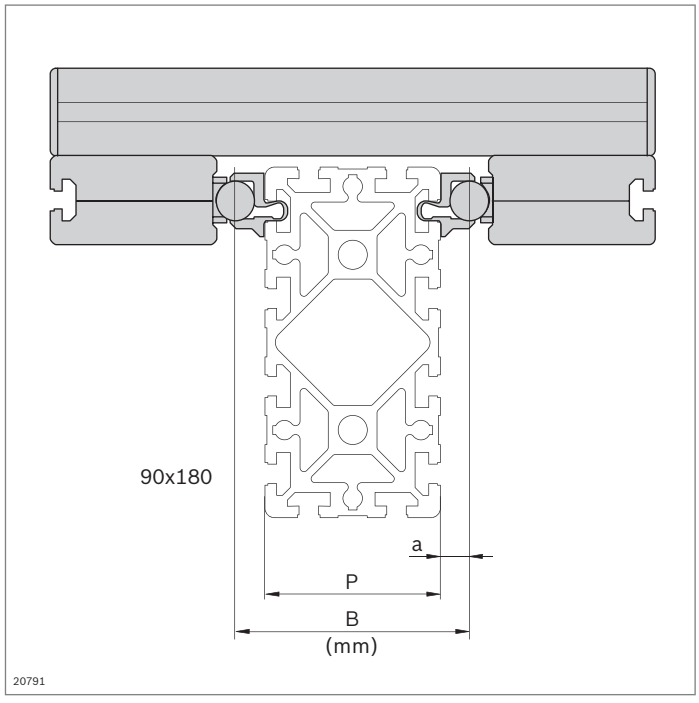
Load-dependent size selection

- The specified values are maximum single loads, which are reduced when loads are combined

	F_z (N)	F_y (N)	M_x (Nm)	M_z (Nm)	M_y (Nm)	v_{max} (m/s)	M_{max} (Nm)
LF6S	850	1400	13.6	0.7 x A[1)]	0.4 x A[1)]	5	9.5 / 7.6
LF6C	850	1400	0.4 x B[1)]	0.7 x A[1)]	0.4 x A[1)]	5	15
LF12S	2000	3500	78.0	1.7 x A[1)]	1.0 x A[1)]	5	30
LF12C	2000	3500	1.0 x B[1)]	1.7 x A[1)]	1.0 x A[1)]	5	30
LF20S	6000	12500	240.0	6.2 x A[1)]	3.0 x A[1)]	5	100
LF20C	6000	12500	3.0 x B[1)]	6.2 x A[1)]	3.0 x A[1)]	5	100

[1)] Note: A (support wheel spacing, see image above) in mm; see below for calculation of B (track width)

Do not exceed the maximum loading of the screwed connections for rails, slides and mounting.
Take account of the general service life of lubricants!

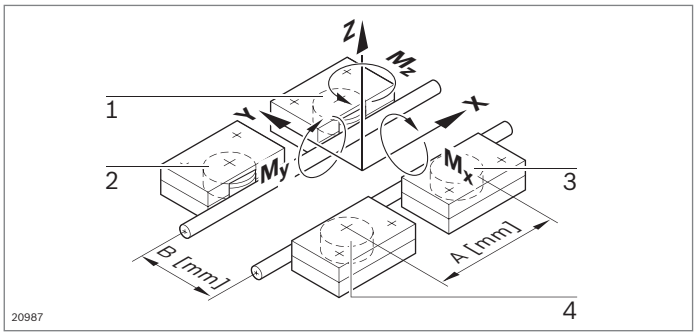


Calculating the track width B

B = P + 2 x a

B = Track width (in mm)
P = Profile width (in mm)
a = Rod distance (in mm)

Values for a: for LF6C = 9.5 mm (p. 13-13)
for LF12C = 9 mm (p. 13-25)
for LF20C = 15 mm (p. 13-39)



Roller 1:

$F_r = -(\frac{F_y}{2}) - (\frac{M_z}{A})$

$F_a = (\frac{F_z}{4}) + (\frac{M_x}{2 \cdot B}) - (\frac{M_y}{2 \cdot A})$

Roller 3:

$F_r = +(\frac{F_y}{2}) + (\frac{M_z}{A})$

$F_a = (\frac{F_z}{4}) - (\frac{M_x}{2 \cdot B}) - (\frac{M_y}{2 \cdot A})$

Roller 2:

$F_r = -(\frac{F_y}{2}) + (\frac{M_z}{A})$

$F_a = (\frac{F_z}{4}) + (\frac{M_x}{2 \cdot B}) + (\frac{M_y}{2 \cdot A})$

Roller 4:

$F_r = +(\frac{F_y}{2}) - (\frac{M_z}{2})$

$F_a = (\frac{F_z}{4}) - (\frac{M_x}{2 \cdot B}) + (\frac{M_y}{2 \cdot A})$

Table 1: Load factors for rollers

	Load case: $F_r \geq \lvert F_a \rvert$				Load case: $F_r < \lvert F_a \rvert$			
	x	**y**	**x_0**	**y_0**	**x**	**y**	**x_0**	**y_0**
LF6	1	3.1	1.2	3.5	0.5	3.6	1	3.7
LF12	1	4.2	1.2	5.2	0.5	4.7	1	5.4
LF20	1	4	1.2	4.9	0.5	4.5	1.1	5

Table 2: rollers - load capacities

	C related to 10^5 m (N)	**C_o** (N)
LF6	3670	2280
LF12	8300	5000
LF20	23400	16600

Calculation of load on bearing for a trolley

Load of the individual rollers

- A mm: distance of the roller rotational axis
- B mm: center-to-center distance of the guide rods
- Only pressure forces can be transferred between rollers and guide rods in the radial direction. The following therefore applies for radial forces:
  $F_r \leq 0$: $F_r = 0$
- Rollers can be loaded equally in both directions. For this reason only the level of force F_a is required to calculate P and P_0

Equivalent dynamic and static loads

To calculate the service life of a cam roller guide, the roller with the greatest load has to be examined.
The following must be determined:

$P = \max (P_1,....,P_4)$

$P_0 = \max (P_{01},...,P_{04})$

Equivalent dynamic load P

$$P = x \cdot |F_r| + y \cdot |F_a|$$

Equivalent static load P_0

$$P_0 = x_0 \cdot |F_r| + y_0 \cdot |F_a|$$

F_r (N): radial load of the roller
The following applies: $F_r \leq 0$: $F_r = 0$

F_a(N): axial load of the roller

x, x_0: radial factor (Table 1)
y, y_0: axial factor (Table 1)

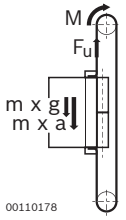
C: dynamic load capacity (Table 2)
C_0: static load capacity (Table 2)

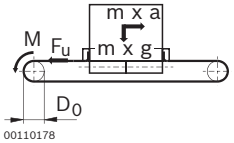
Static safety values:
$S_0 \geq 4$ recommended!

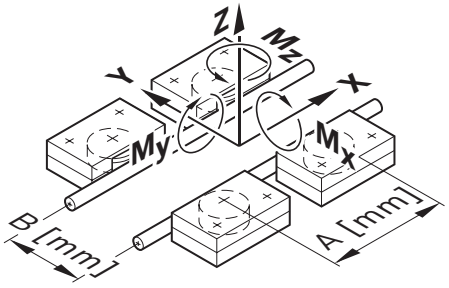
$$S_0 = (\frac{C_0}{P_0})$$

Linear guide

1. Peripheral force F_u







$F_u = m \cdot a + m \cdot g + F_0 + \mu \cdot m \cdot g$
$F_u \leq F_{u\,perm}$!

$F_u = m \cdot a + F_0 + \mu \cdot m \cdot g \leq F_{u\,perm}$!

2. Required drive torque M

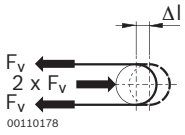
$M = 1/2 \cdot D_0 \cdot F_u \leq M_{perm}$!

F0: frictional force on return units
μ : coefficient of friction

	v (m/s)	$\mathbf{F_{u\,perm}}$ (N)	$\mathbf{M_{perm}}$ (Nm)	$\mathbf{F_0}$ (N)	**μ**	$\mathbf{D_0}$ (mm)	$\mathbf{D_0 \cdot \pi}$ (mm)
LF6S	≤ 2.0	500	9.5	10	0.025	38.21	120
LF6S	2.01...5.0	400	7.6	10	0.025	38.21	120
LF6C	≤ 5.0	600	15.0	10	0.025	50.94	160
LF12S	≤ 5.0	820	30.0	30	0.020	73.20	230
LF12C	≤ 5.0	820	30.0	30	0.020	73.20	230
LF20S	≤ 5.0	2000	100.0	35	0.015	101.86	320
LF20C	≤ 5.0	2000	100.0	35	0.015	101.86	320

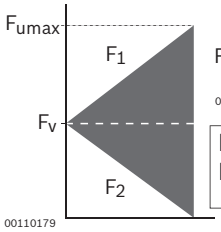
Calculating the drive

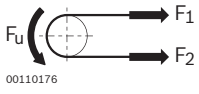
1. Preload force F_v of toothed belt



$0.5 \cdot F_u \leq F_v \leq F_u$
Recommended: $F_v = 0.5 \cdot F_u$

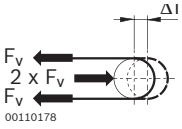
2. Maximum toothed belt force $F_{1\,max}$





$F_{1\,max} = F_v + 0.5 \cdot F_u \leq F_{1\,perm}$!
$F_{2\,min} = F_v - 0.5 \cdot F_u > 0$!

3. Required preload length Δl
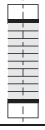


$\Delta l = 0.5 \cdot F_v \cdot L / C_{spec} \leq \Delta l_{max}$!

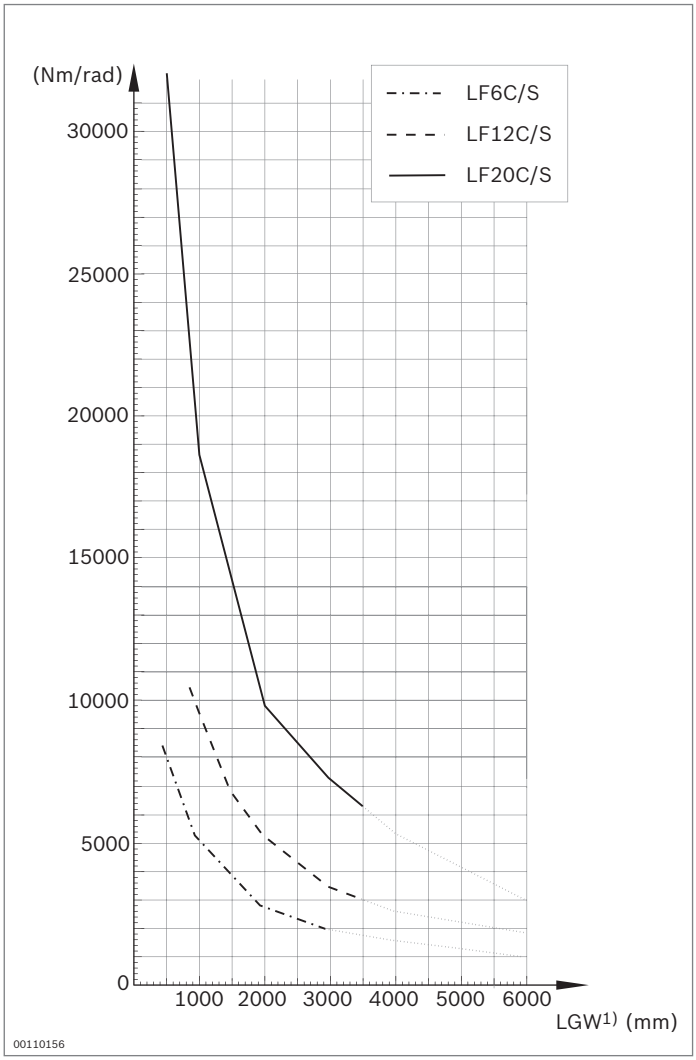
C_{spec}: belt rigidity; L: toothed belt length

	$\mathbf{F_{1\,perm}}$ (N)	$\mathbf{C_{spec}}$ (N)	$\mathbf{\Delta l_{max}}$ (N)	**L** (mm)
LF6S	750	315000	11	$2 \cdot L_2 - L_1 + 360$
LF6C	900	420000	13	$2 \cdot L_2 - L_1 + 400$
LF12S	1230	1250000	16	$2 \cdot L_2 - L_1 + 630$
LF12C	1230	1250000	16	$2 \cdot L_2 - L_1 + 630$
LF20S	3000	1870000	23	$2 \cdot L_2 - L_1 + 780$
LF20C	3000	1870000	23	$2 \cdot L_2 - L_1 + 780$

Dimensioning of synchronous shafts

			LF6	LF12	LF20
Support separation SW	Horizontal		215 ... 3000 mm	275 ... 3500 mm	325 ... 3500 mm
	Vertical		215 ... 2000 mm	275 ... 2000 mm	325 ... 1100 mm
Nominal torque			max. 30 Nm	max. 60 Nm	max. 150 Nm
Permitted rpm			Diagram 3 (p. 13-61) **max. 0.7 · nk**	Diagram 3 (p. 13-61) **max. 0.7 · nk**	Diagram 3 (p. 13-61) **max. 0.7 · nk**
Elasticity	Axial		max. 2 mm	max. 3 mm	max. 4 mm
	Lateral		Diagram 4 (p. 13-61)	Diagram 4 (p. 13-61)	Diagram 4 (p. 13-61)
	Torsion angle		Diagram 5 (p. 13-61)	Diagram 5 (p. 13-61)	Diagram 5 (p. 13-61)

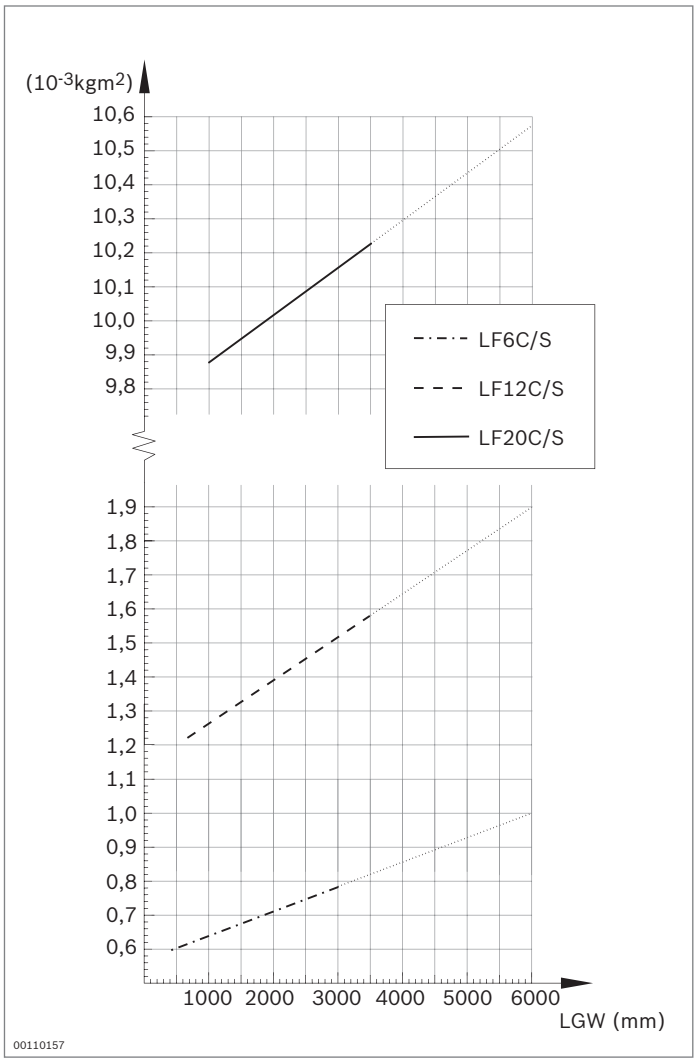
Tab. 1: Torsion resistance



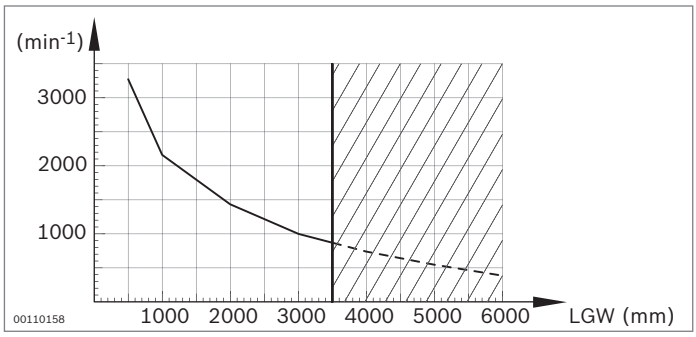
1) Long synchronous shaft LGW

LF6	LGW = SW - 72
LF12	LGW = SW - 101
LF20	LGW = SW - 130

Tab. 2: Mass inertia

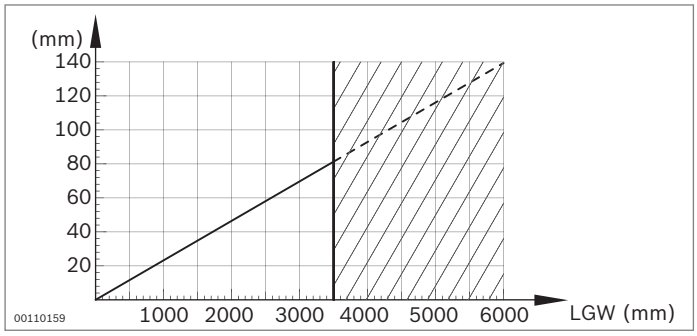


Tab. 3: Bending rpm nk



Tab. 4: Lateral offset

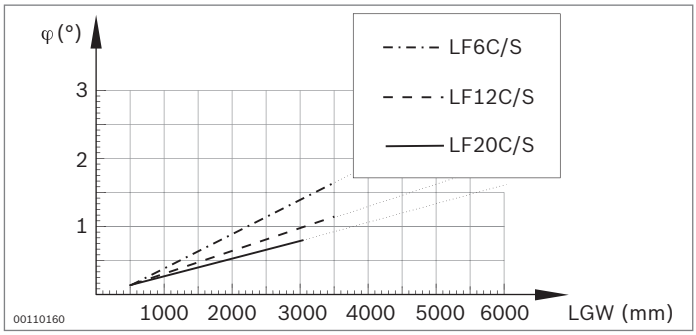




Aligned shafts are recommended.

Tab. 5: Torsion angle





Planning tool for MGE linear guides

Automation from a single source
Planning, implementation, commissioning and training – Rexroth offers you support in every project phase.
Besides the catalogs and brochures, we provide you with powerful planning tools.
On our website you will find information on new products and up-to-date information on our existing products.
In addition, our sales and service teams are on hand to answer specific questions.
When implementing our systems, we also support you with our broad range of training measures.

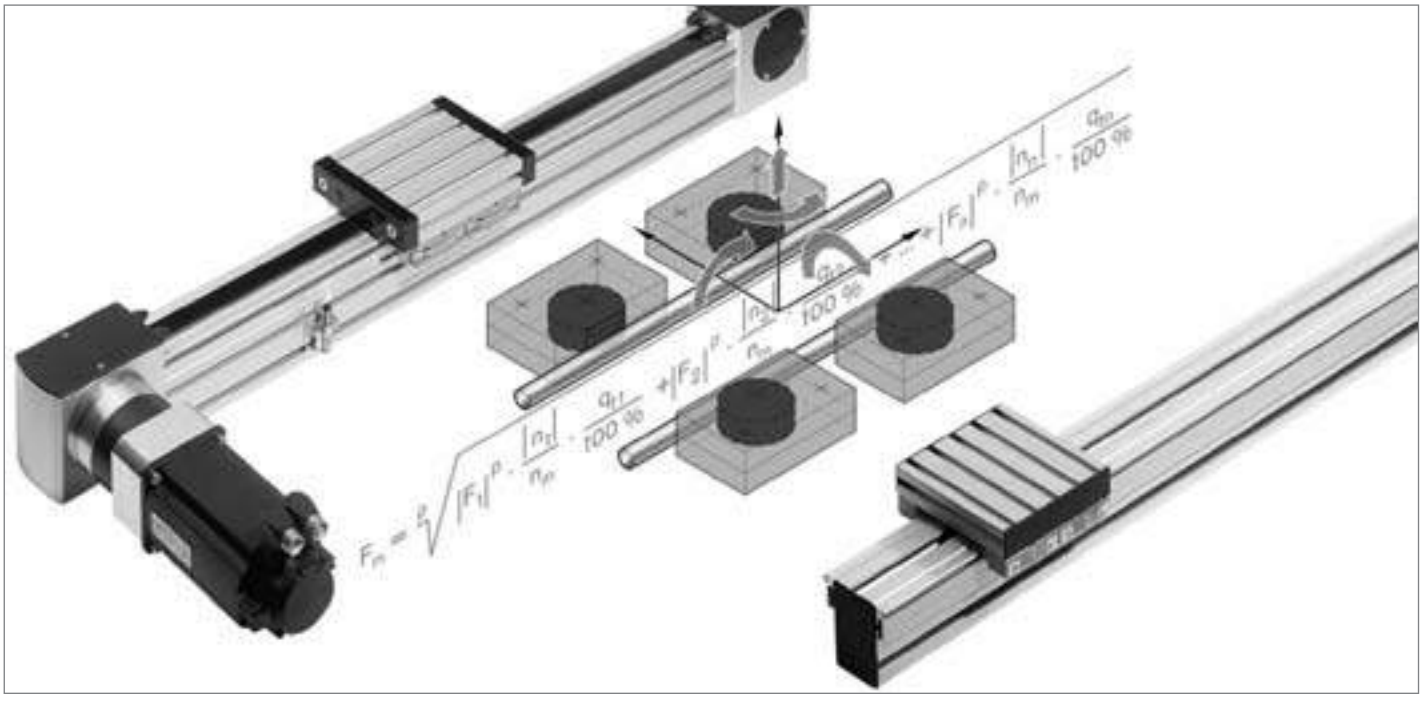
Design program
With the LF-MGE Linear Motion Designer, we offer a professional planning tool for the quick and easy design of linear guides.

LF-MGE	No.
	3 842 540 900

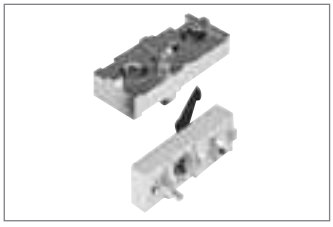
Performance characteristics
- Calculating the lifetime of individual guide bearings
- Combination of up to 16 guide bearings
- Entry of the dynamic movement
- Check of the selected size
- Suggested motor/gear combination
- Quick and easy design
- Clear result display and documentation

Multilingual content and graphical user interface in 5 different languages (de/en/fr/it/es). The program can be run directly from the CD without separate installation. Automatic updates via the Internet make sure you are always up to date.

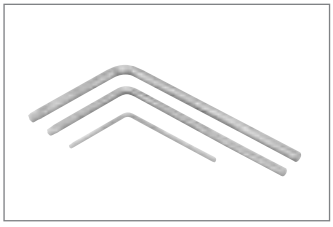
Internet: www.boschrexroth.com/dcl



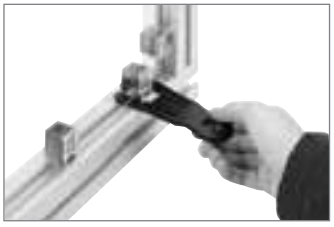
Tools



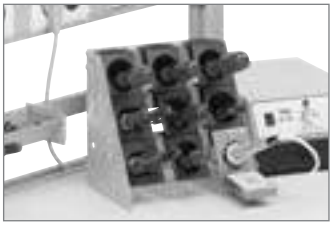
Drilling jigs (p. 14-2)



Offset screwdriver Torx® (p. 14-6)



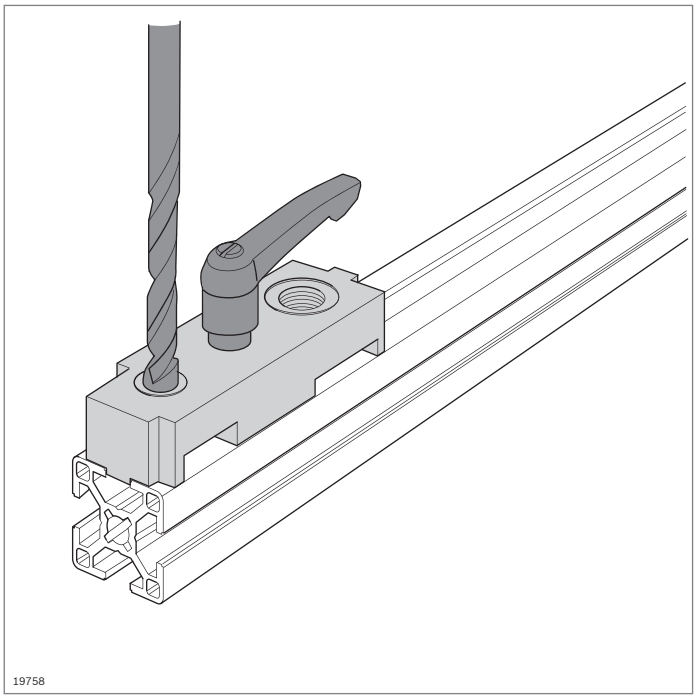
Variofix remover, flexible grinder for anodized surfaces (p. 14-7)



Tool shelf, tool holder (p. 14-8)

Let us send you information on the complete product range of Bosch power tools!

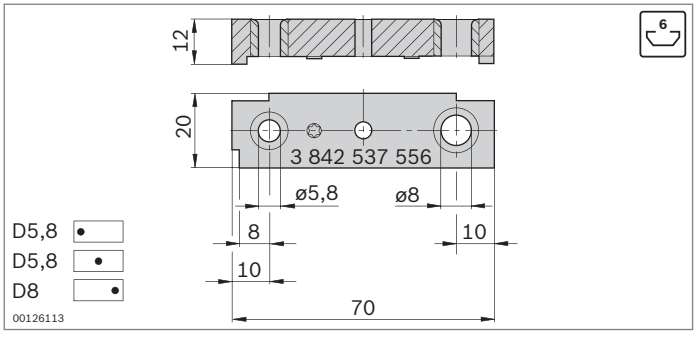
Robert Bosch GmbH
Geschäftsbereich Elektrowerkzeuge
Postfach 10 01 56
D-70745 Leinfelden-Echterdingen
http://www.bosch-pt.de



Drilling jigs



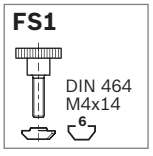
- For simple drilling of standard holes for the Rexroth range of connectors
- Stopping surfaces and edges for precise hole positioning
- Lockable

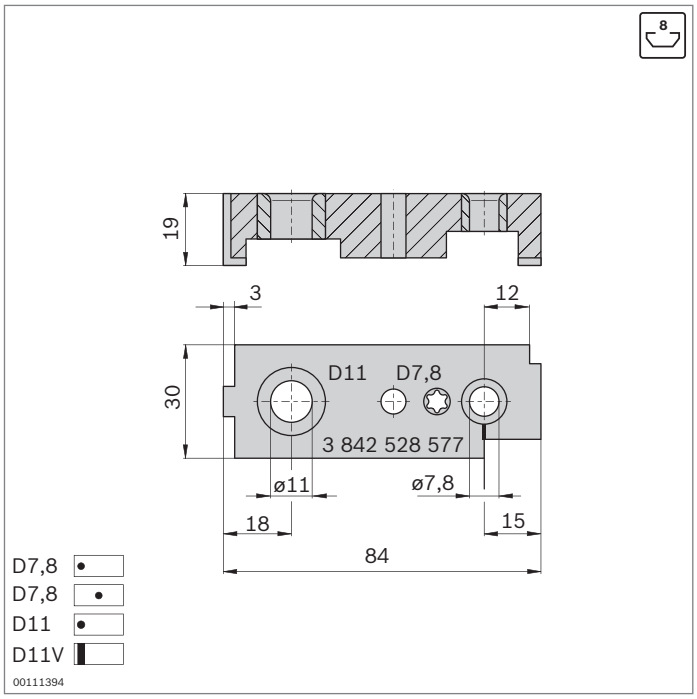


Drilling jigs – slot 6 mm

- For through holes (ø 5.8) for hexagonal-star socket screwdrivers T25
- For fastening holes (ø 8) for quick connectors

Drilling jig		No.	FS
Slot 6 mm		**3 842 537 556**	FS1
Material:	Aluminum		
Scope of delivery:	Incl. fastening material (FS)		

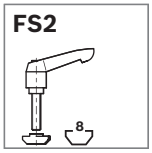


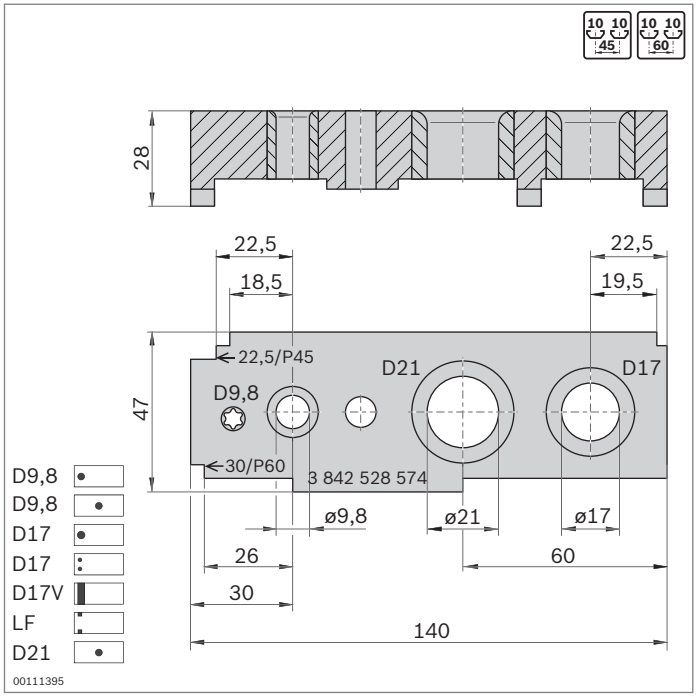


Drilling jigs – slot 8 mm

- For through holes (ø 7.8) for hexagonal-star socket screwdrivers T40
- For fastening holes (ø 11) for quick connectors

Drilling jig	No.	FS
Slot 8 mm	**3 842 528 577**	FS2
Material:	Steel, galvanized, chromated transparent	
Scope of delivery:	Incl. fastening material (FS)	

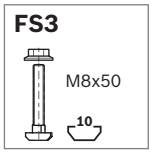


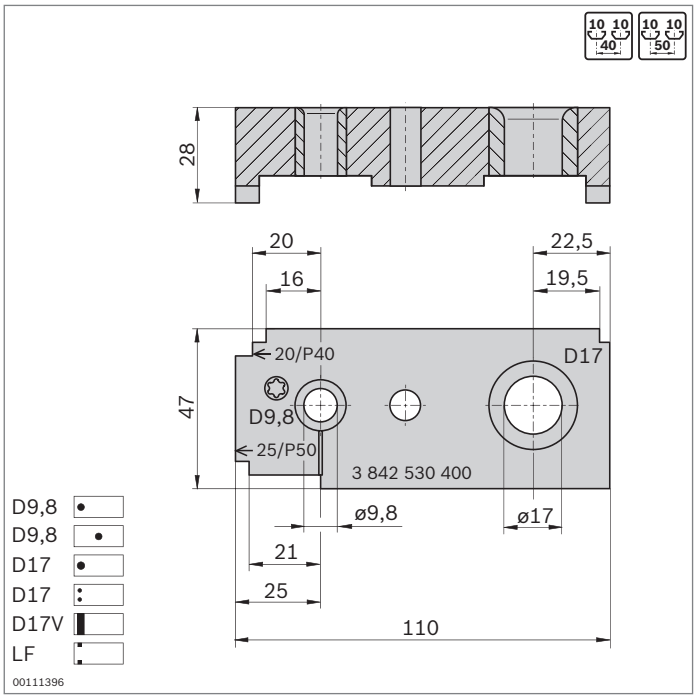


Drilling jigs – slot 10 mm, modular dimensions 45, 60

- For fastening holes (ø 17) for bolt connectors, quick connectors, and threaded sleeves
- For through holes (ø 9.8) for hexagonal-star socket screwdrivers T50
- For counterbores (ø 21) for pneumatic connections

Drilling jig	No.	FS
Slot 10 mm, modular dimensions 45, 60	**3 842 528 574**	FS3
Material:	Steel, galvanized, chromated transparent	
Scope of delivery:	Incl. fastening material (FS)	



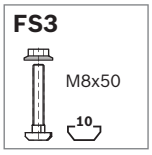


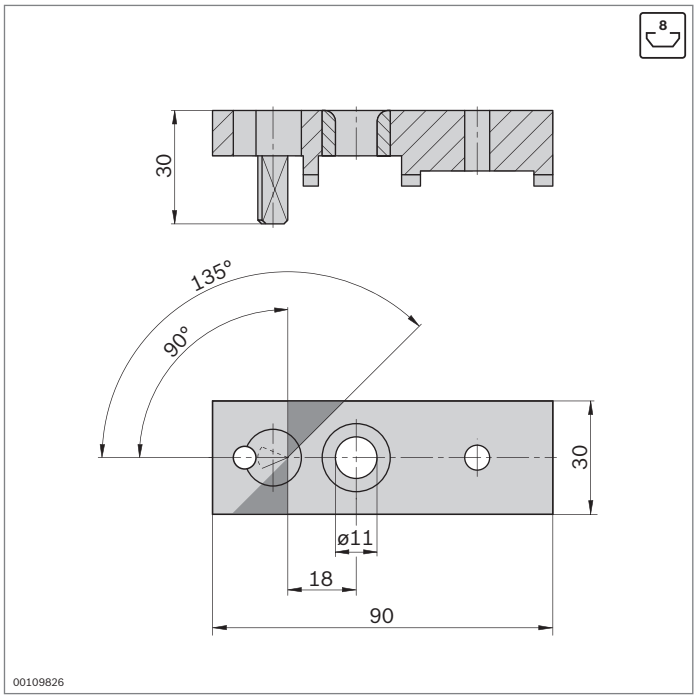
Drilling jigs – slot 10 mm, modular dimensions 40, 50

- For through holes (ø 9.8) for hexagonal-star socket screwdrivers T50
- For fastening holes (ø 17) for bolt connectors, quick connectors, and threaded sleeves

Drilling jig	No.	FS
Slot 10 mm, modular dimensions 40, 50	**3 842 530 400**	FS3

Material: Steel, galvanized, chromated transparent
Scope of delivery: Incl. fastening material (FS)



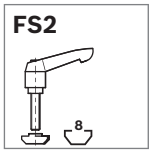


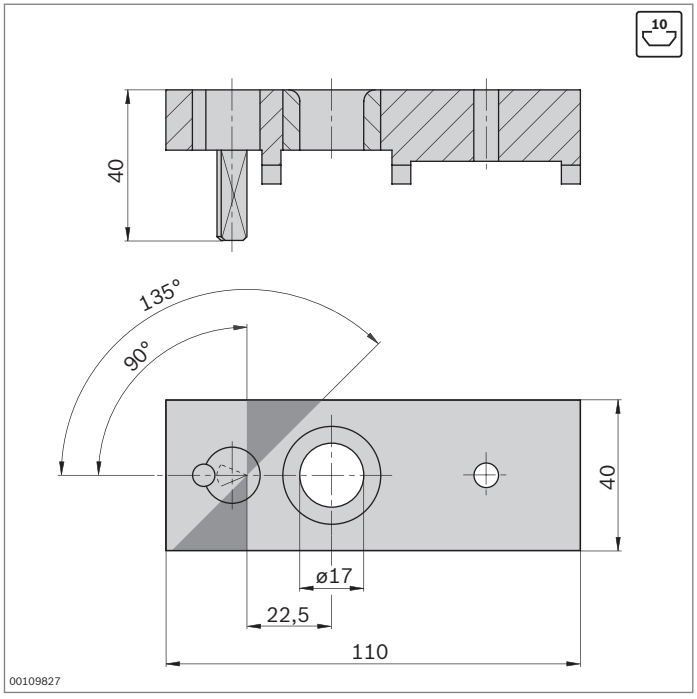
Drilling jigs for diagonally sawn profiles – slot 8 mm

- For fastening holes (ø 11) for bendable quick connectors

Drilling jig	No.	FS
Slot 8 mm – diagonally sawn profiles	**3 842 516 729**	FS2

Material: Steel, galvanized, chromated transparent
Scope of delivery: Incl. fastening material (FS)
Also see bendable quick connector (p. 3-51).



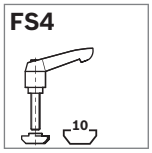


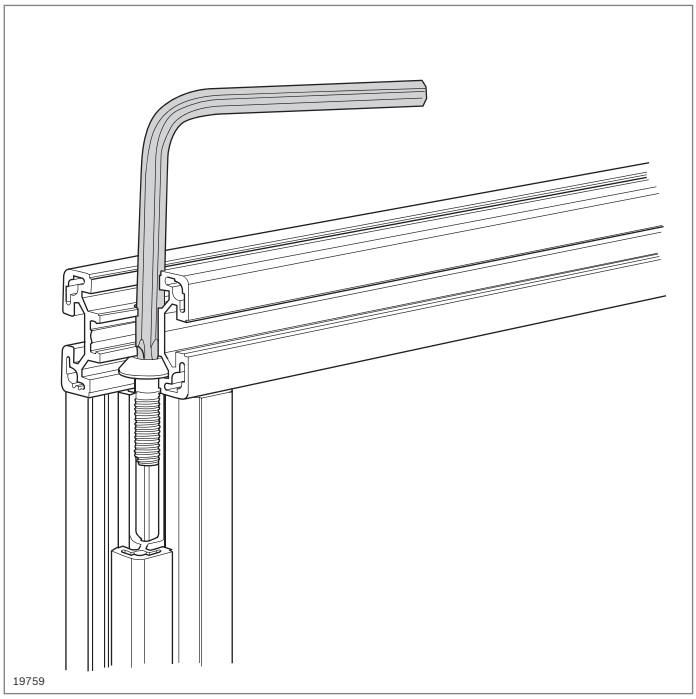
Drilling jigs for diagonally sawn profiles – slot 10 mm

- For fastening holes (ø 17) for bendable quick connectors

Drilling jig	No.	FS
Slot 10 mm – diagonally sawn profiles	**3 842 516 731**	FS4

Material: Steel, galvanized, chromated transparent
Scope of delivery: Incl. fastening material (FS)
Also see bendable quick connector (p. 3-51).



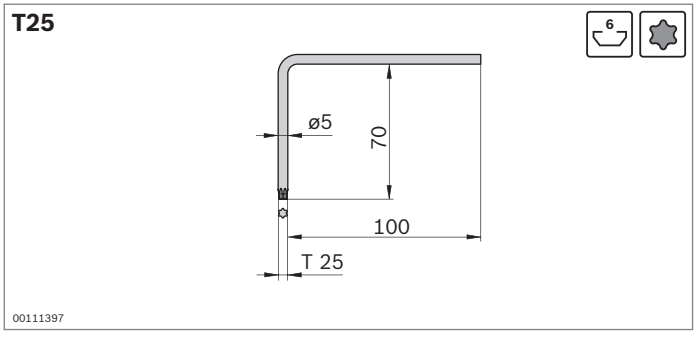


Offset screwdriver Torx®



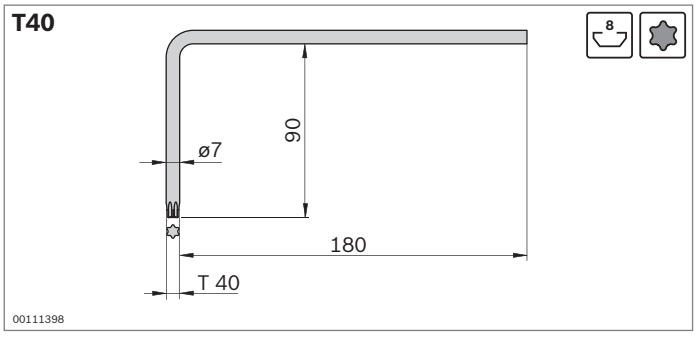
- Offset screwdriver for central bolts (p. 3-36):
  - S6x16-**T25**
  - S8x25-**T40**
  - S12x30-**T50**, M12x30-**T50**
- Long leg for easy screw head access

T25



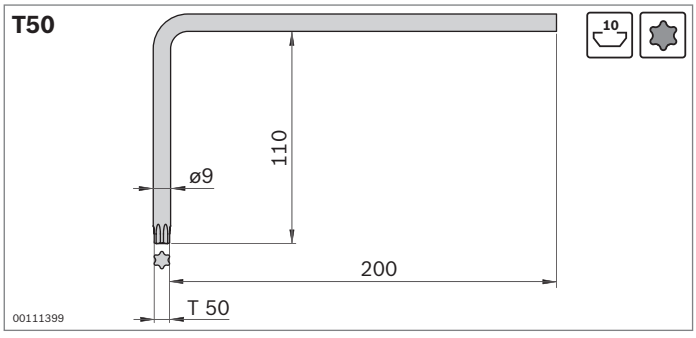
Offset screwdriver T25		No.
	5	**3 842 528 590**
Material:	Chrome vanadium steel	

T40

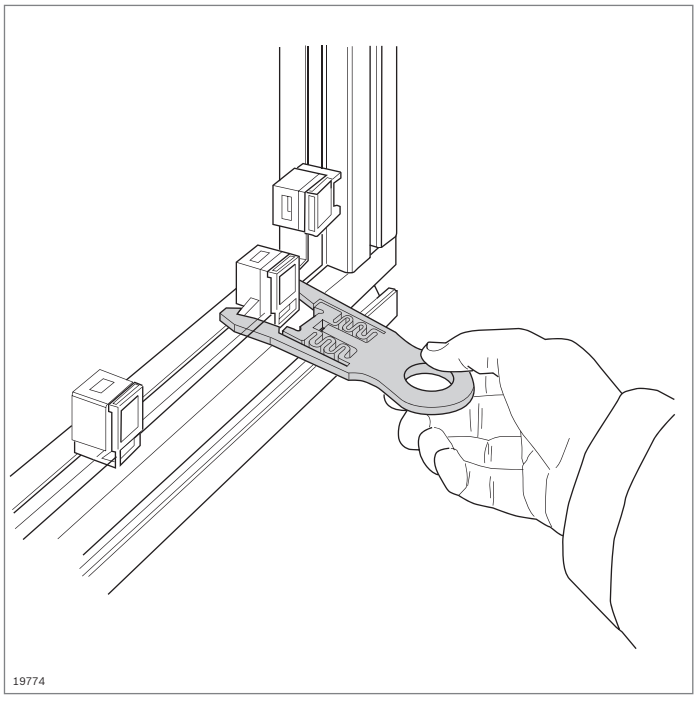


Offset screwdriver T40		No.
	5	**3 842 528 588**
Material:	Chrome vanadium steel	

T50



Offset screwdriver T50		No.
	5	**3 842 528 586**
Material:	Chrome vanadium steel	

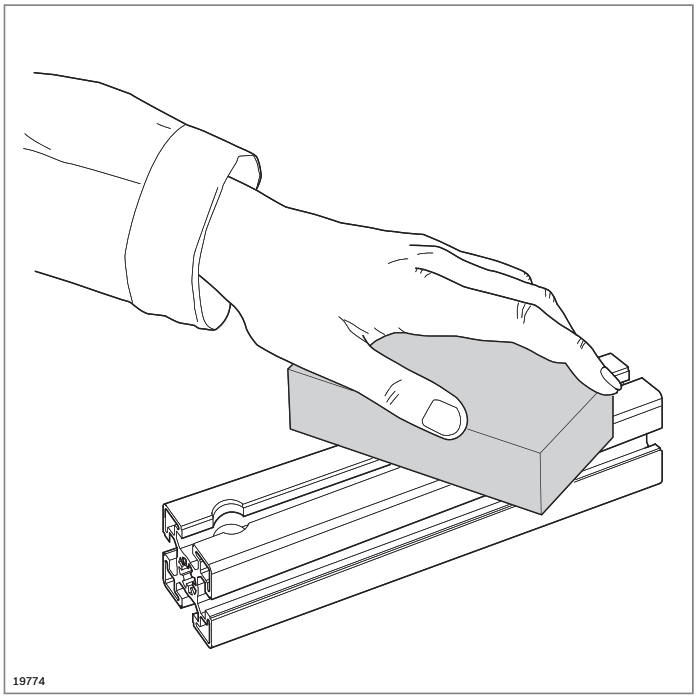


Variofix remover

- For fast, easy removal of the Variofix snap-in clip (p. 7-6), even in hard-to-reach places
- The remover is pushed onto the snap-in clip of the Variofix block, so that it spreads the teeth of the clip and is then removed together with the clip

Variofix remover		No.
	10	**3 842 526 589**

Material: PA

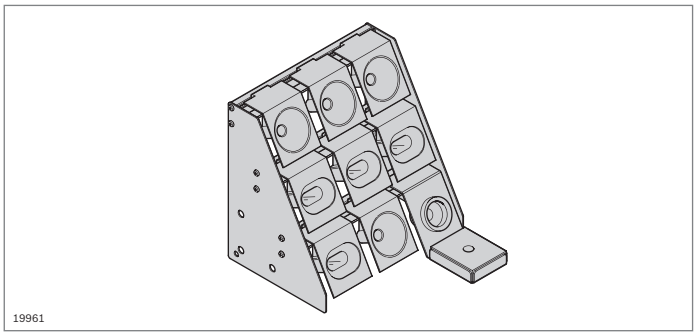


Flexible grinder for anodized surfaces

- Hand grinder for removing minor dirt and scratches
- Handy grindstone made of flexible base material containing abrasive agents
- Extremely durable thanks to continual surface renewal, like an eraser
- Suitable for all natural-colored, anodized surfaces, e.g. also for aluminum windows and doors

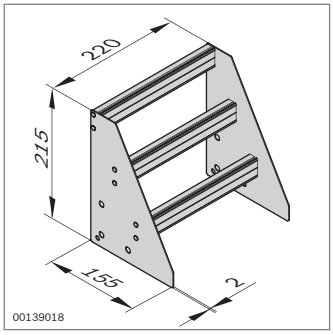
Flexible grinder for anodized surfaces	No.
	3 842 518 650

Material: Silicon carbide 60%
Polyurethane 40%



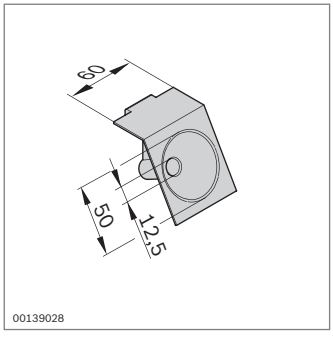
Tool shelf
Tool holder

- Tool shelf and tool holder for ergonomic and handy positioning of tools at the workstation



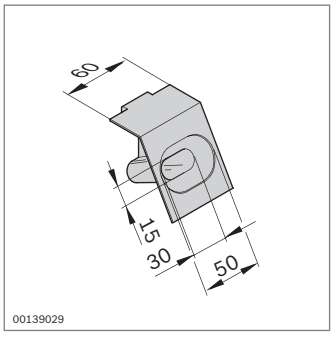
- Tool shelf can be individually equipped

Tool shelf		ESD	No.
		⚠	**3 842 514 519**
Material:	Lateral parts: sheet aluminum Suspension profile: aluminum, anodized		



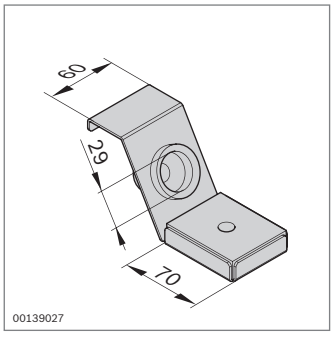
- Tool holder for the supply of screwdrivers, suitable for hanging/suspension

Tool holders		ESD	No.
For screwdrivers		⚠	**3 842 514 522**
Material:	PP, black		



- Tool holder for the supply of pliers, suitable for hanging/suspension

Tool holder		ESD	No.
For pliers		⚠	**3 842 514 523**
Material:	PP, black		



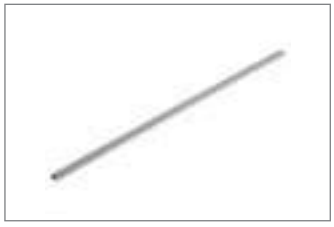
- Tool holder for the supply of soldering irons, suitable for hanging/suspension

Tool holders		ESD	No.
For soldering irons		⚠	**3 842 514 524**
Material:	VA		

FiFo station



Guide rail (p. 15-2)



Adapter (p. 15-3)



Right end cap, small (p. 15-3)



Left end cap, small (p. 15-3)

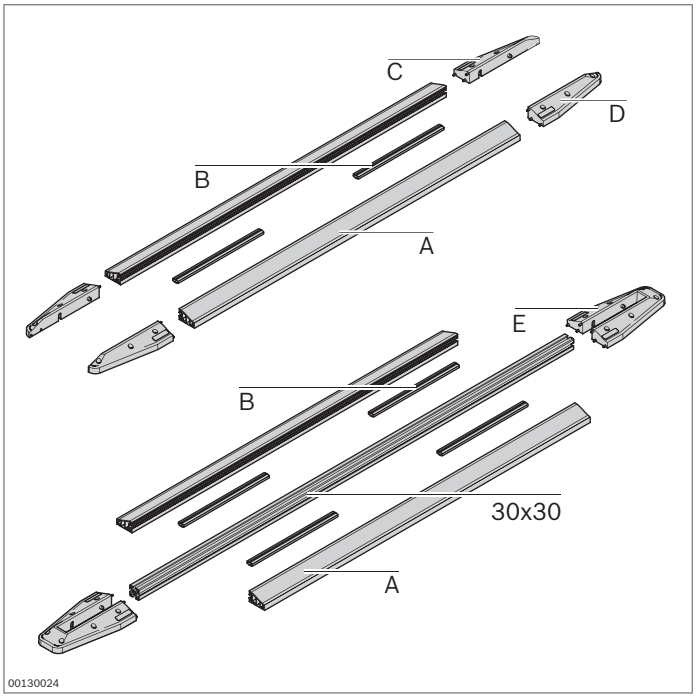


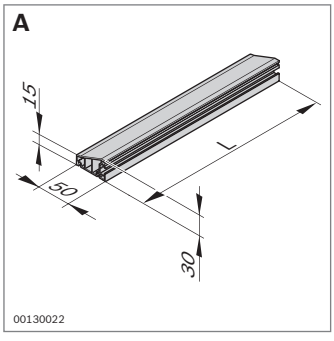
End cap, large (p. 15-3)



FiFo station

- Components for constructing a FiFo station for material shuttles
- Standardized delivery routes for clearly organized and highly transparent production operations
- Modular system lets you adapt layout to your needs and to your space

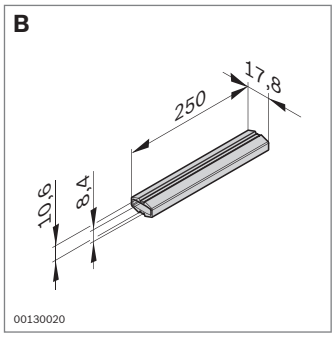




- Adhesive strips for fastening to floor
- Screw fitting to floor possible at end caps

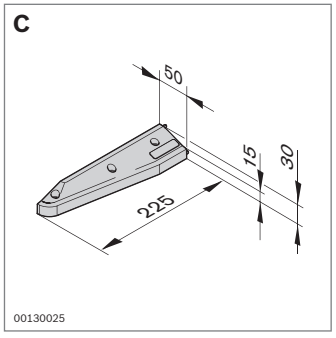
Guide rail	L (mm)		No.
A	1200	10	**3 842 540 012**
	2400	10	**3 842 539 894**

Material: PVC, yellow



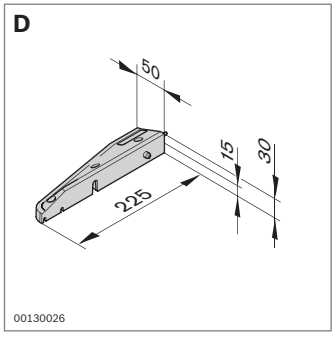
- For the parallel connection or guide rails, or a guide rail with a 30x30 profile

Adapter		No.
B	20	**3 842 539 898**
Material:	PP	



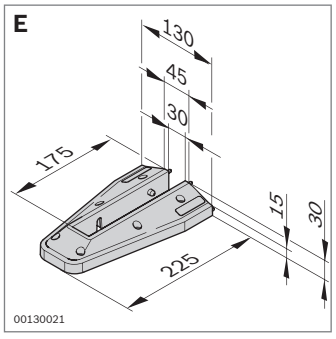
- For use as a joining aid and for fastening guide rails to the floor

Right end cap, small		No.
C	10	**3 842 539 895**
Material:	PA 6, black	



- For use as a joining aid and for fastening guide rails to the floor

Left end cap, small		No.
D	10	**3 842 539 896**
Material:	PA 6, black	



- For installing a profile 30x30 between two guide rails
- The profile 30x30 can be used to construct flow rack systems, information boards, and height limits. Since the guide rails are flat-sided, setup can be done using a wide profile (40, 45, 50)

Required accessories:

- Profile 30x30 (p. 2-16)

End cap, large		No.
E	10	**3 842 539 897**
Material:	PA 6, black	

Components for lateral guides



Profile rails, slide rails (p. 16-3)



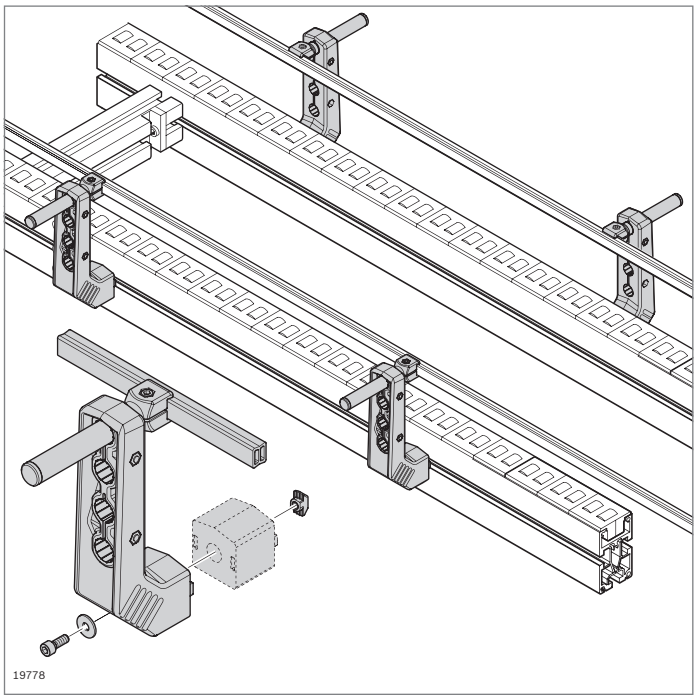
Holder, fixed (p. 16-6)



Holder, variable (p. 16-8)



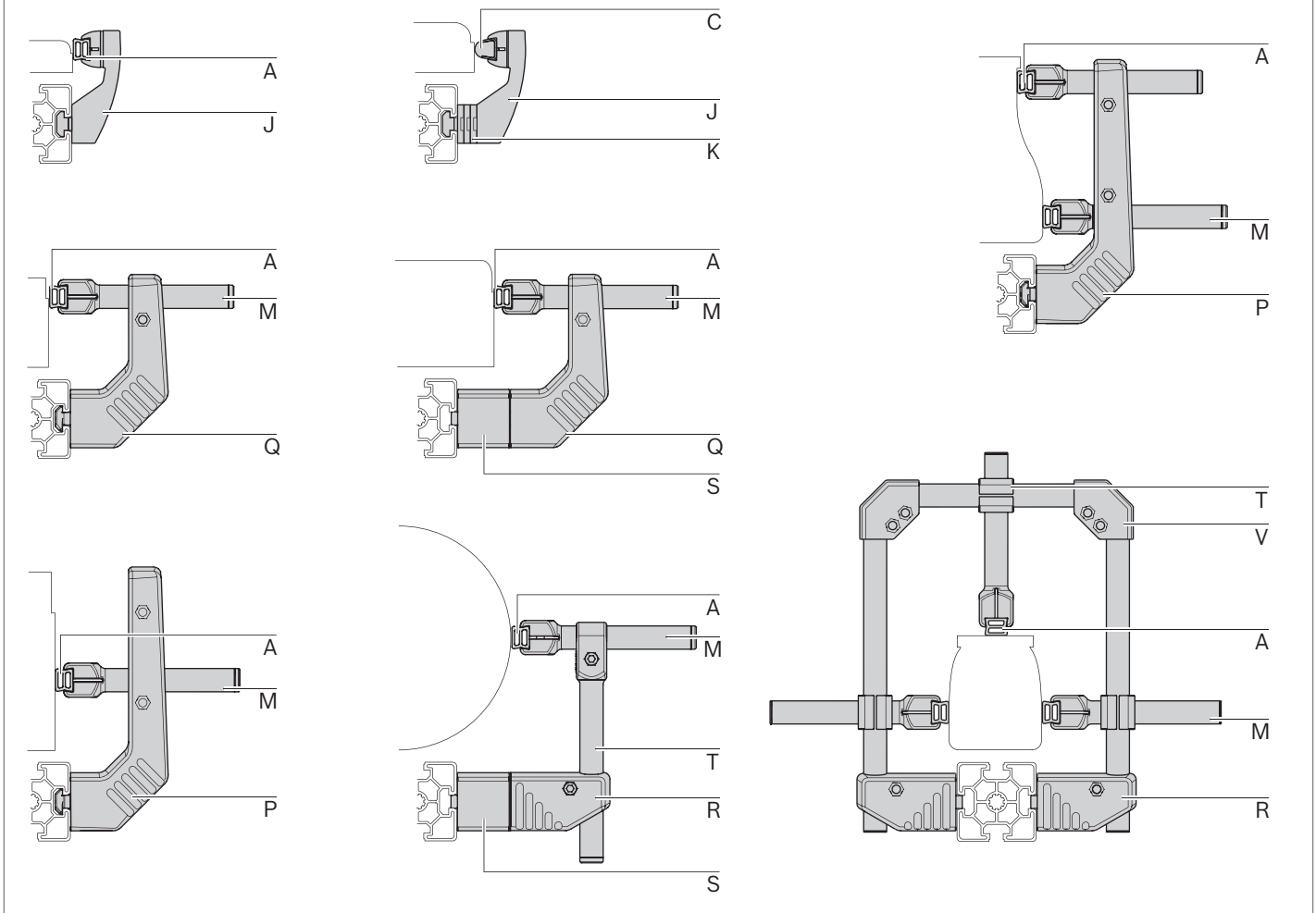
Clamping lever (p. 16-13)

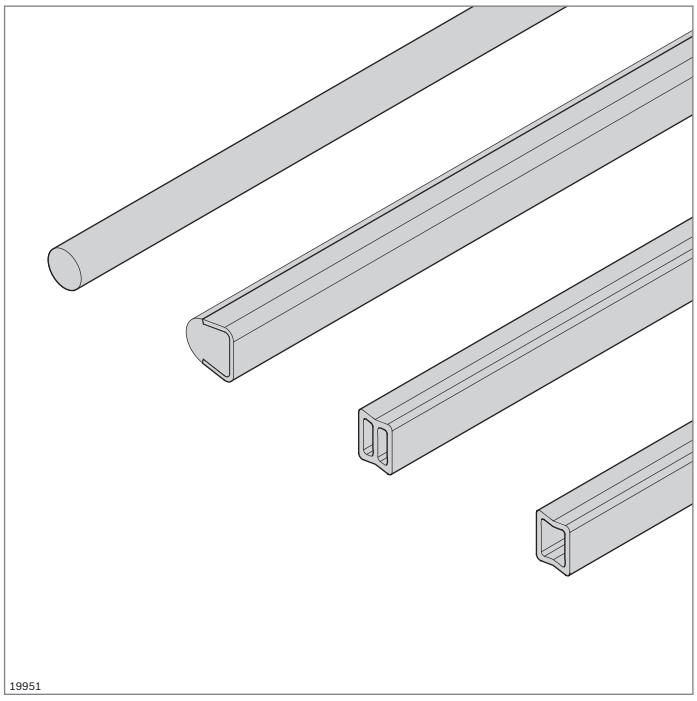


Components for lateral guides

- Wide variety of profile rail and holder combinations for individual solutions
- Easy to clean
- Sturdy
- Only one tool required for adjustment
- 10 mm slot interface

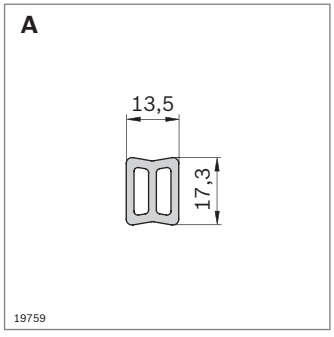
Mounting variants





Profile rails for lateral guides

- Profile rails for lateral guiding of transported material
- Suitable for fixed lateral guide holders (p. 16-6) and variable lateral guide holders (p. 16-8)
- Various materials and geometries for different applications

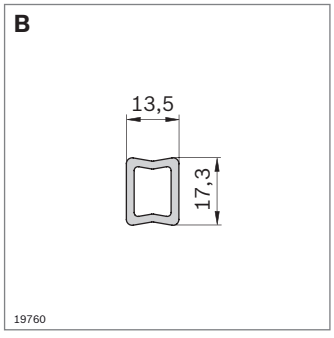


- Aluminum profile rail for robust lateral guides

Profile rail, aluminum	**L** (mm)	**No.**
1 pc	200 ... 3000	**3 842 993 887/L**
20 pcs	3000	**3 842 538 829**

Material: Aluminum, natural, anodized

Accessories: Narrow slide rail (**E**), high slide rail (**F**), outer profile connector (**G**), inner profile connector (**H**), cap (**I**), clamping head C L100 (**M**), holder (**J**), clamping head (**L**), clamping head (**O**)



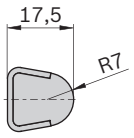
- HDPE profile rail for light applications
- Bendable

Profile rail HDPE	**L** (mm)	**No.**
1 pc	3000	**3 842 538 388**

Material: HDPE, gray

Accessories: Narrow slide rail (**E**), high slide rail (**F**), outer profile connector (**G**), inner profile connector (**H**), cap (**I**), clamping head C L100 (**M**), holder (**J**), clamping head (**L**), clamping head (**O**)

C



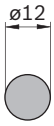
19763

- Profile rail 17x17.5 in robust stainless steel version with PE guide for gentle product handling

Profile rail 17x17.5	**L** (mm)	**No.**
1 pc	200 ... 3000	**3 842 994 863/L**
20 pcs	3000	**3 842 529 850**

Material: Steel, stainless/PE, natural
Accessories: Outer profile connector (**G**); clamping head C L100 (**M**); holder (**J**); clamping head (**L**); clamping head (**O**)

D



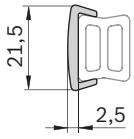
19764

- Profile rail D12 in robust stainless steel version

Profile rail D12	**L** (mm)	**No.**
1 pc	200 ... 3000	**3 842 993 306/L**
6 pcs	3000	**3 842 533 841**

Material: Steel, stainless
Accessories: Clamping head D12 L100 (**N**)

E



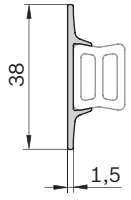
19761

- Clip-on slide rail for aluminum or HDPE profile rail
- For gentle product transport and minimum wear to HDPE profile rail

Slide rail, narrow	**L** (mm)	**ESD**	**No.**
	3000		**3 842 538 209**
	3000	⚠	**3 842 539 340**

Material: HDPE, gray
ESD: PE-UHMW, conductive, black

F



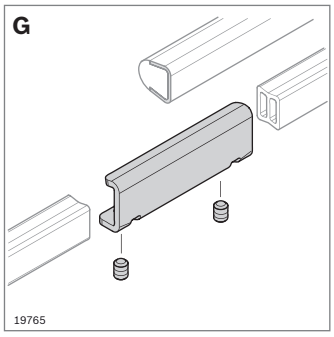
19762

- Clip-on slide rail for aluminum or HDPE profile rail
- Wide guiding surface
- For gentle product transport and minimum wear to HDPE profile rail

Slide rail, high	**L** (mm)	**No.**
	3000	**3 842 538 389**

Material: HDPE, gray

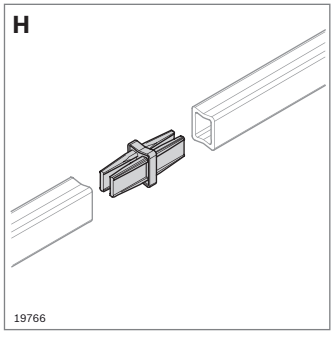
G



▶ Outer profile connector for profile rails in aluminum (**A**), HDPE (**B**), and 17x17.5 (**C**) versions

Outer profile connector		**No.**
	10	**3 842 539 613**
Material:	Steel, stainless	
Scope of delivery:	Incl. 2x headless setscrews	

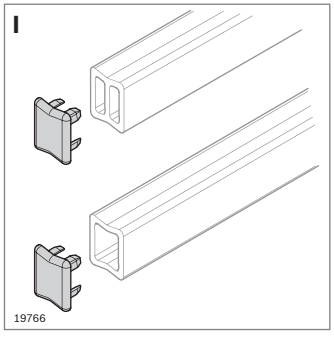
H



▶ Inner profile connector for profile rail in aluminum (**A**), HDPE (**B**)

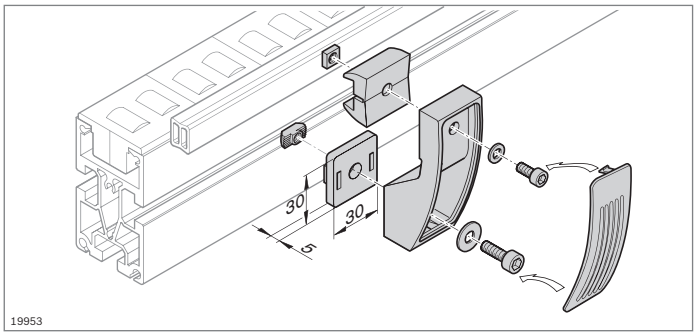
Inner profile connector		**No.**
	10	**3 842 539 345**
Material:	PA, black, conductive	

I



▶ Cap for aluminum (**A**) profile rail, HDPE (**B**) profile rail

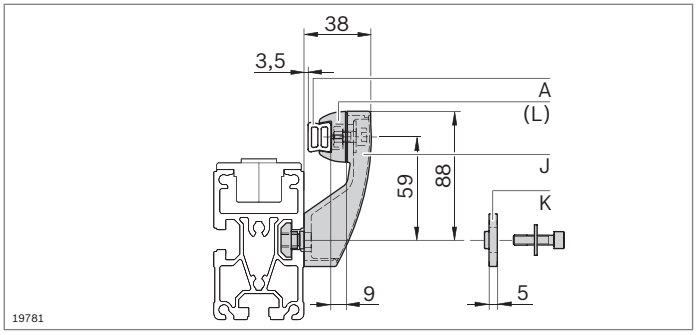
Cap		**No.**
	10	**3 842 538 208**
Material:	PA, black, conductive	

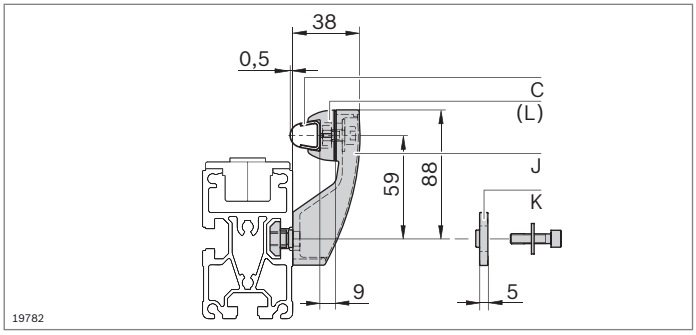


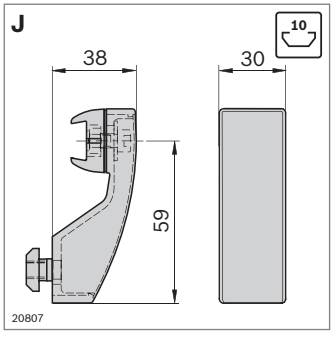
Lateral guide holder, fixed

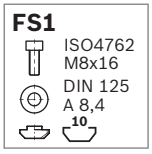
10

- Holders for lateral guides with fixed installation height and fixed guide width



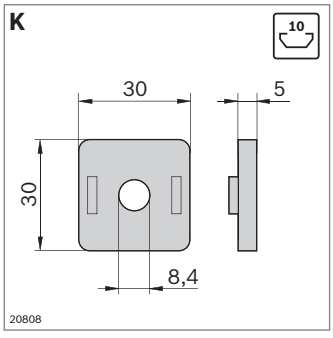






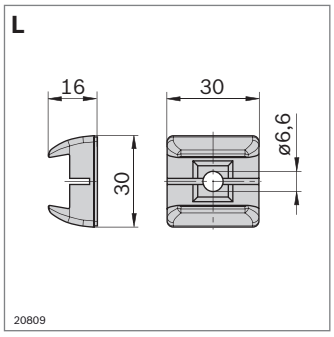
- Holder, fixed, for profile rail in aluminum (**A**), HDPE (**B**), and 17x17.5 (**C**)
- For fixed guide width
- Spacer plate (**K**) for guide width enlargement

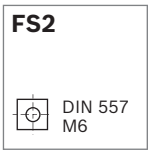
Holder, fixed		**No.**	**FS**
Set		**3 842 527 851**	FS1
Material:	PA, black Fastening material: steel, galvanized		
Scope of delivery:	Incl. clamping head, fastening material (FS)		



- Spacer plate for holders, fixed, for guide width enlargement

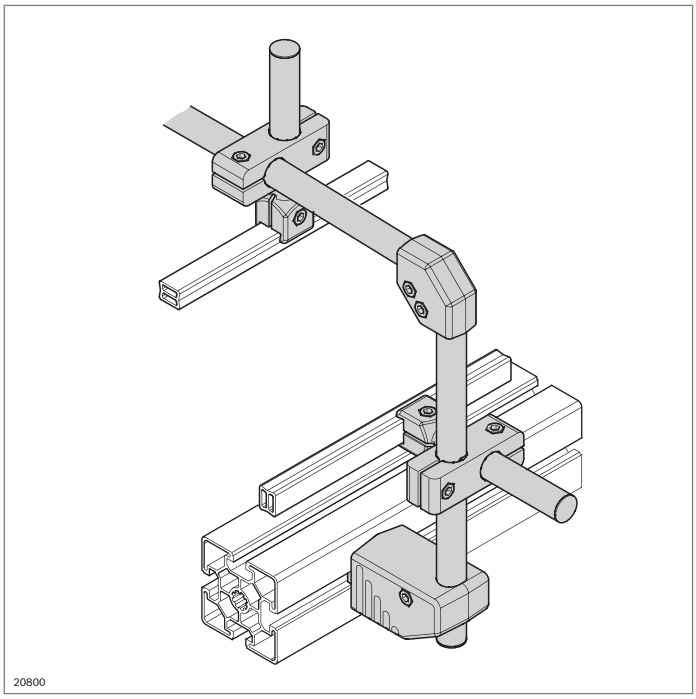
Spacer plate		**No.**
	10	**3 842 527 738**
Material:	PA, black	





▶ Clamping head for on-site construction of supports for protruding transported material

Clamping head			**No.**	**FS**
Set		10	**3 842 536 295**	FS2
Material:	PA, black Fastening material: steel, galvanized			
Scope of delivery:	Incl. fastening material (FS)			



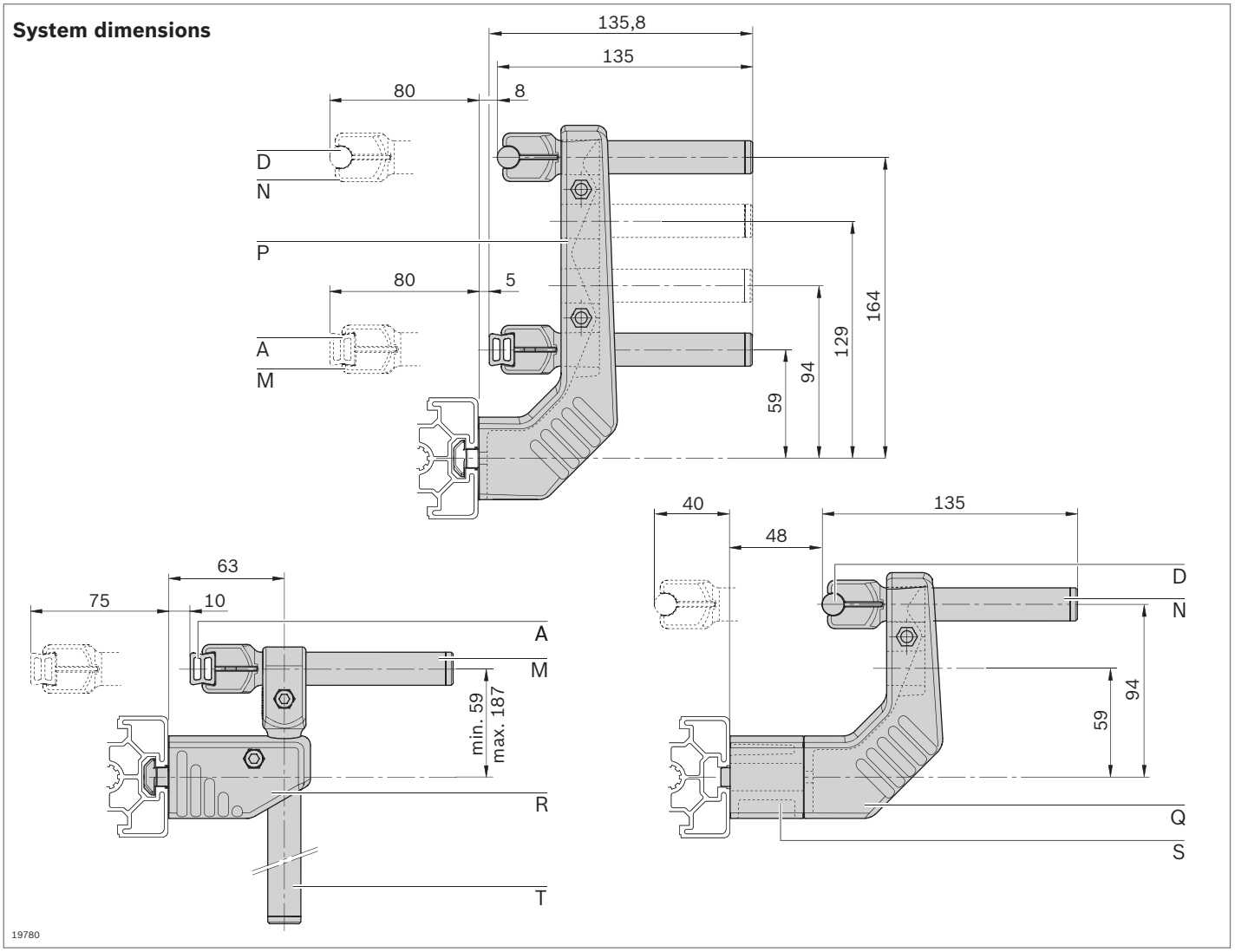
Lateral guide holder, variable

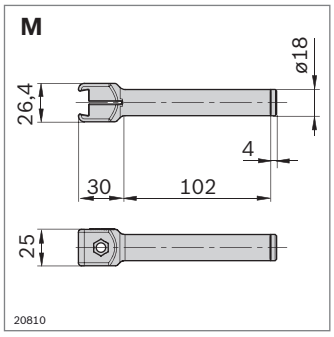
10

- Variable adjustment of the guide height and width thanks to holders and clamping heads
- Easy to clean

Note: For stability in the direction of rotation, at least two holders must be connected with a continuous profile rail.

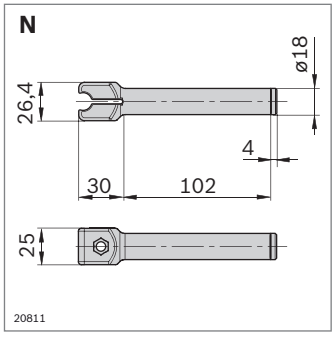
System dimensions





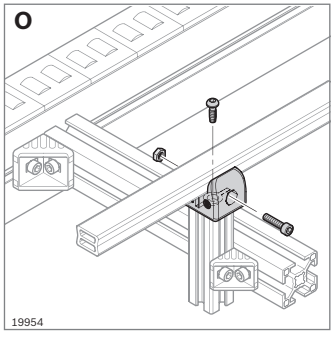
- Clamping head C L100 for supporting aluminum (**A**), HDPE (**B**), or 17x17.5 (**C**) profile rail versions
- Scaling in mm and inch for simple alignment

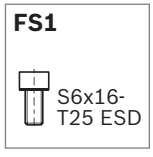
Clamping head C L100		**No.**
	10	**3 842 539 499**
Material:	Clamping head: PA, black Nut, screw: steel, stainless	
Accessories:	Plug (**X**)	



- Clamping head D12 for supporting profile rails D12 (**D**)
- Scaling in mm and inch for simple alignment

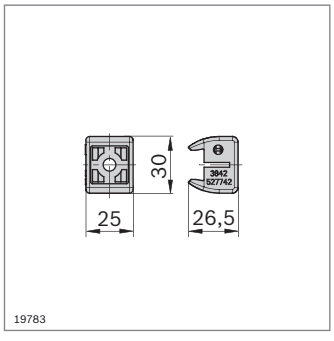
Clamping head D12 L100		**No.**
	10	**3 842 539 498**
Material:	Clamping head: PA, black Nut, screw: steel, stainless	
Accessories:	Plug (**X**)	

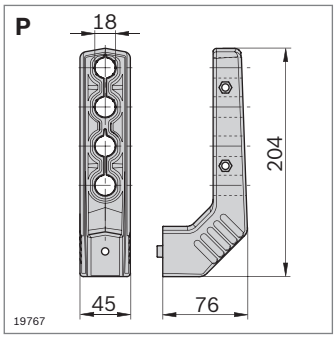




- Clamping head for supporting aluminum (**A**), HDPE (**B**), or stainless steel profile rail versions with PE guide (**C**)
- Direct mounting on profiles with 10 mm slot

Clamping head		**No.**	**FS**
Set	10	**3 842 528 009**	FS1
Material:	Clamping head: PA, black Fastening material: steel, galvanized		
Scope of delivery:	Incl. fastening material (FS)		



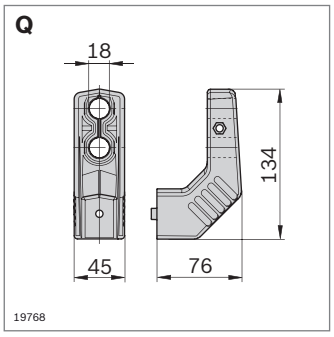


FS2

DIN 912
M6x16
DIN 9021
A 6,4

- Holder for fastening clamping heads C L100 or D12 L100
- Various installation heights possible for clamping heads
- Variable guide widths possible
- Spacer (**S**) for added enlargement of guide width

Holder L204		**No.**	**FS**
Set		**3 842 539 494**	FS2
Material:	PA, black Fastening material: steel, stainless		
Scope of delivery:	Incl. fastening material (FS)		
Accessories:	T-nut M6, 10 mm slot (p. 3-4) Spacer (**S**)		

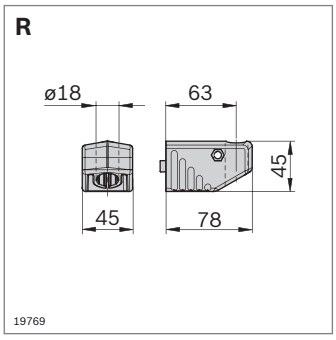


FS2

DIN 912
M6x16
DIN 9021
A 6,4

- Holder for fastening clamping heads C L100 or D12 L100
- Various installation heights possible for clamping heads
- Variable guide widths possible
- Spacer (**S**) for added enlargement of guide width

Holder L134		**No.**	**FS**
Set		**3 842 539 495**	FS2
Material:	PA, black Fastening material: steel, stainless		
Scope of delivery:	Incl. fastening material (FS)		
Accessories:	T-nut M6, 10 mm slot (p. 3-4) Spacer (**S**)		



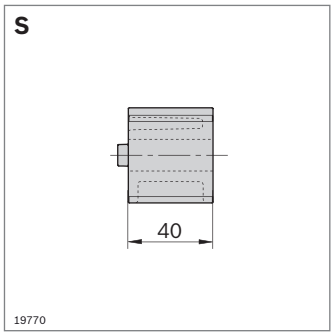
FS2

DIN 912
M6x16
DIN 9021
A 6,4

- Holder L45 for fastening vertical clamping heads for tube D18
- For infinitely height-adjustable lateral guides
- Spacer (**S**) for enlargement of guide width

Holder L45		**No.**	**FS**
Set	10	**3 842 539 496**	FS2
Material:	PA, black Fastening material: steel, stainless		
Scope of delivery:	Incl. fastening material (FS)		
Accessories:	T-nut M6, 10 mm slot (p. 3-4) Spacer (**S**)		

S



FS3



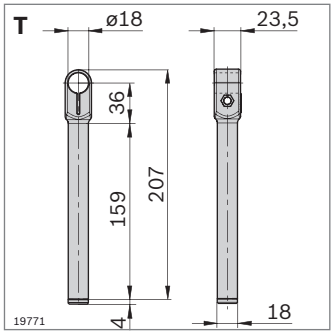
DIN 9021
-A6,4

Spacer		**No.**	**FS**
Set	10	**3 842 539 497**	FS3

Material: PA, black
Fastening material: steel, stainless

Scope of delivery: Incl. fastening material (FS)

T



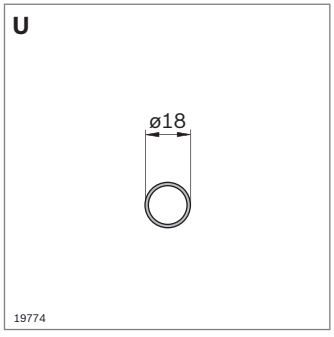
▶ Vertical clamping head for constructing height-adjustable guides

Vertical clamping head D18 L160		**No.**
	10	**3 842 539 500**

Material: PA, black
Nut, screw: steel, stainless

Accessories: Plug (**X**)

U



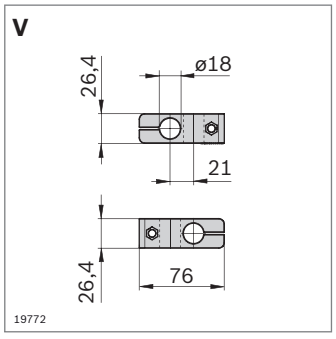
▶ Tube D18 for the construction of height-adjustable vertical holders or cross members for upper guides

Tube D18	**L** (mm)	**No.**
	3000	**3 842 539 339**

Material: Stainless steel

Accessories: Plug (**X**)

V



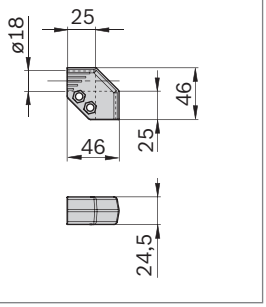
▶ Cross piece for intersecting, perpendicular connections of tubes D18 (**U**) and clamping heads C L100 (**M**) or D12 L100 (**N**)

Cross piece		**No.**
	10	**3 842 539 501**

Material: Cross piece: PA, black
Nut, screw: steel, stainless

16

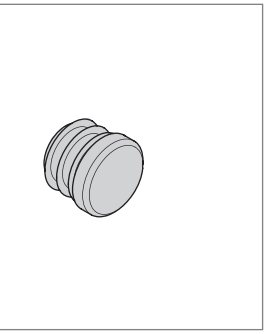
W



▶ Corner piece for end-to-end, perpendicular connections of tubes D18 (**U**) and clamping heads C L100 (**M**) or D12 L100 (**N**)

Corner piece		**No.**
	10	**3 842 539 505**
Material:	Corner piece: PA, black Nut, screw: steel, stainless	

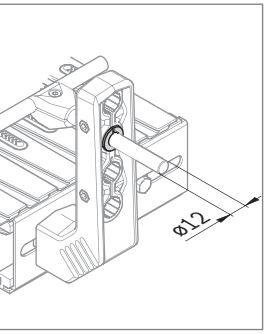
X



▶ Plug for clamping head C L100, clamping head D12 L100, vertical clamping head D18 L160 or tube D18

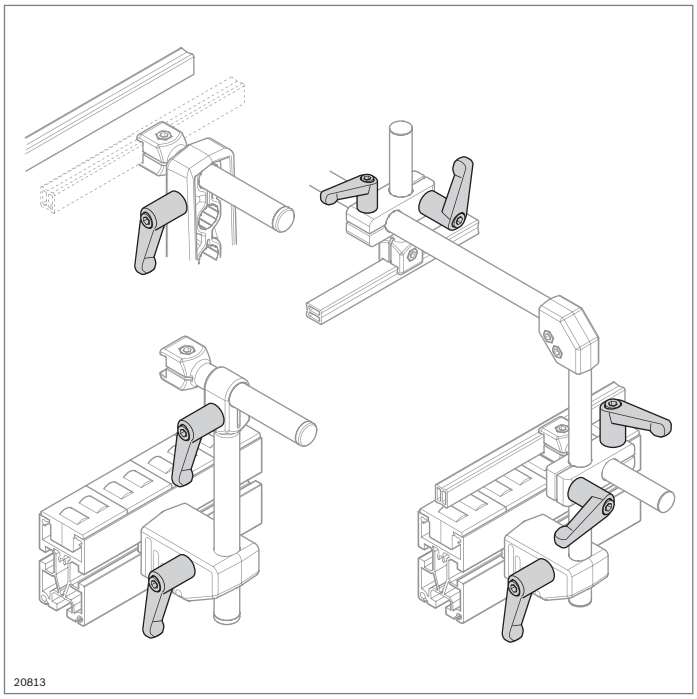
Plug		**No.**
	10	**3 842 539 826**
Material:	PA, black	

Y



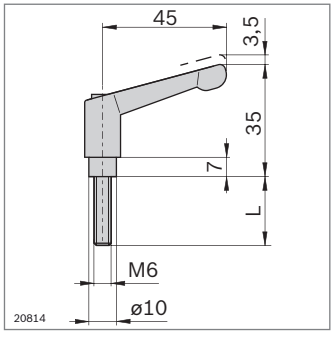
▶ Reducing adapter for supporting round profiles ø 12 in D18 mountings

Reducing adapter		**No.**
	20	**3 842 539 344**
Material:	PA, black	



Clamping lever

- For easy adjustment of lateral guide holders
- Clamping lever M6x25 for cross piece
- Clamping lever M6x40 for holder



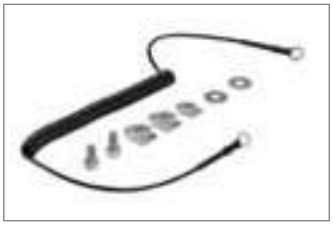
Clamping lever	**L** (mm)	**No.**
M6x25	25	**3 842 528 540**
M6x40	40	**3 842 528 539**

Material: Lever: diecast zinc, black polymer coating
Screws: steel, galvanized and black chrome-plated

Components for ESD applications



Set of grounding components (p. 17-2)



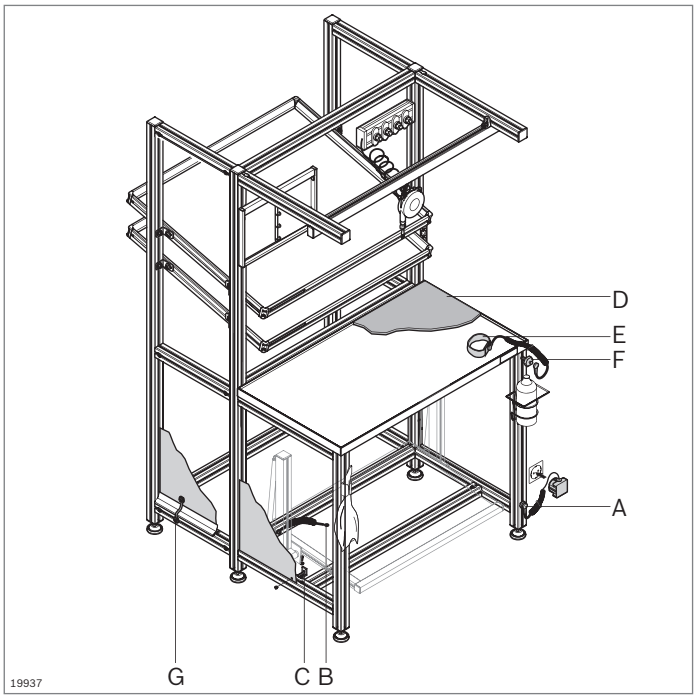
Grounding cable (p. 17-2)



Potentialfix (p. 17-3)

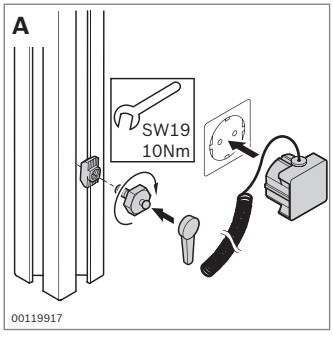


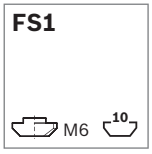
Wrist band, connection piece (p. 17-3)



Components for ESD applications

ESD – Electro Static Discharge
Components that, due to their electrical properties and inner structure, are damaged or destroyed by static discharge also cause millions in economic damage each year.
You can use Rexroth components for ESD applications to protect your products from this type of damage.
Look for the ESD mark when selecting products (⚠).

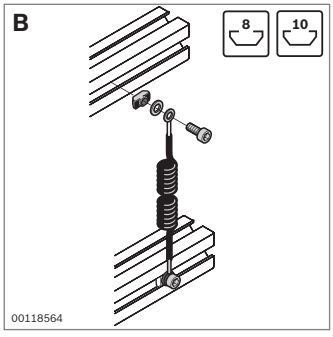


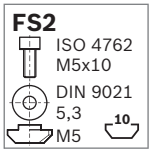


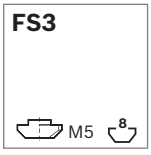
- Set of grounding components for defined grounding of ESD workstations
- Conduction resistance R_A = 1 x 10^6 Ω (DIN EN 61340-5-1)

Accessories:
Damping ring or damping plate to insulate against conductive floors, enables defined conduction (p. 6-3, 6-5)

Set of grounding components		ESD	No.	FS
A		⚠	**3 842 522 087**	FS1
Material:	Fastening material: steel, galvanized			
Scope of delivery:	Incl. fastening material (FS)			

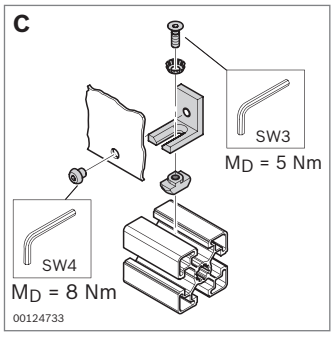


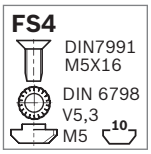




- Grounding cable to create defined conductive paths between strut profiles to protect ESD-sensitive components

Grounding cable		ESD	No.	FS
B		⚠	**3 842 519 465**	2xFS2, FS3
Material:	Fastening material: steel, galvanized			
Scope of delivery:	Incl. fastening material (FS)			



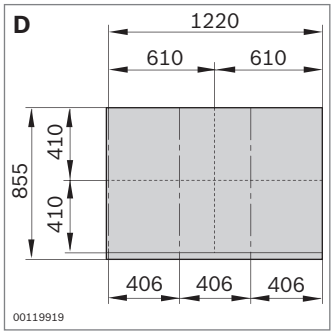




- Potential fix for defined grounding of surface elements such as side panels

Potentialfix	ESD	No.	FS
C	⏚	**3 842 536 320**	FS4, FS5

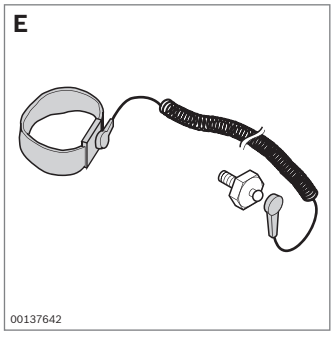
Material:	Bracket: aluminum Fastening material: steel, galvanized
Scope of delivery:	Incl. fastening material (FS)



- ESD mat insert to protect ESD-sensitive components
- To create a safe conductive connection, e.g. to ESD material shelves, we recommend using adhesive copper tape
- Conduction resistance R_A = 1 x 10^6 – 1 x 10^9 Ω according to DIN EN 61340-5-1

ESD mat insert	ESD	No.
D 1220 mm x 855 mm	⏚	**3 842 522 012**

Material:	Rubber (thickness: 2 mm)

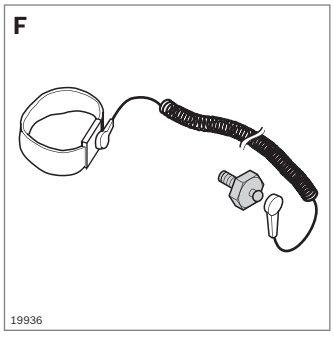


- Wrist band for defined grounding of people and protection of ESD-sensitive components

Required accessories:
- Connection piece
- T-nut M6, or sliding block, swivel-in with spring, M6

Wrist band	ESD	No.
E	⏚	**3 842 516 908**

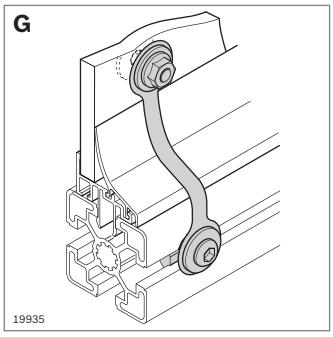
Material:	Textile with woven-in conductive plastic, marine blue

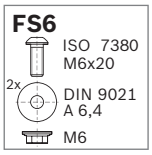


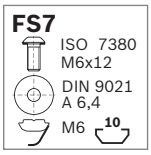
- Connection piece for connecting the wrist band to the profile construction

Connection piece	ESD		No.
F	⏚	10	**3 842 516 905**

Material:	Steel, galvanized







▶ Potential equalizer to establish an electrostatic conduction between surface elements and strut profiles

Potential equalizer	ESD		No.	FS
G		10	**3 842 536 148**	FS6, FS7

Material:	Strip steel, stainless fastening material: steel, galvanized
Scope of delivery:	Incl. fastening material (FS)

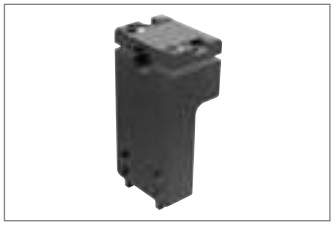
Proximity switches and switch brackets



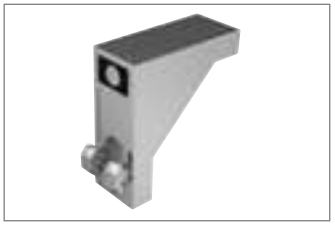
SH 1/S (p. 18-2)



SH 1/U (p. 18-3)



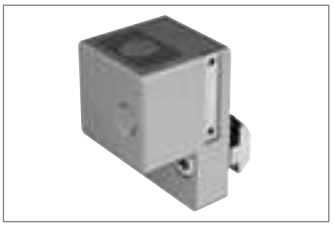
SH 2/S, SH 2/ST (p. 18-4)



SH 2/S-H (p. 18-5)



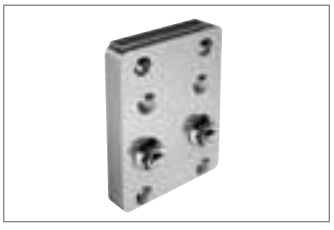
SH 2/U (p. 18-6)



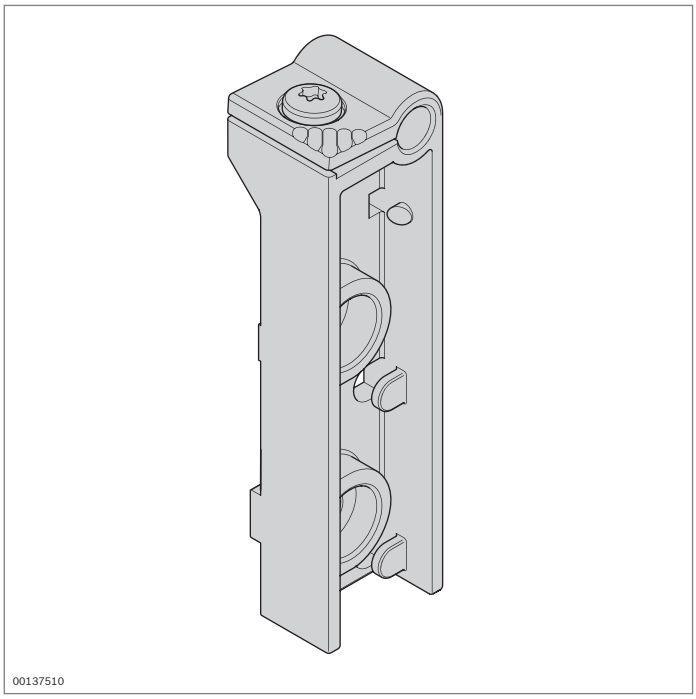
SH 2/U-H (p. 18-7)



Proximity switch (p. 18-8)



Stop (p. 18-10)

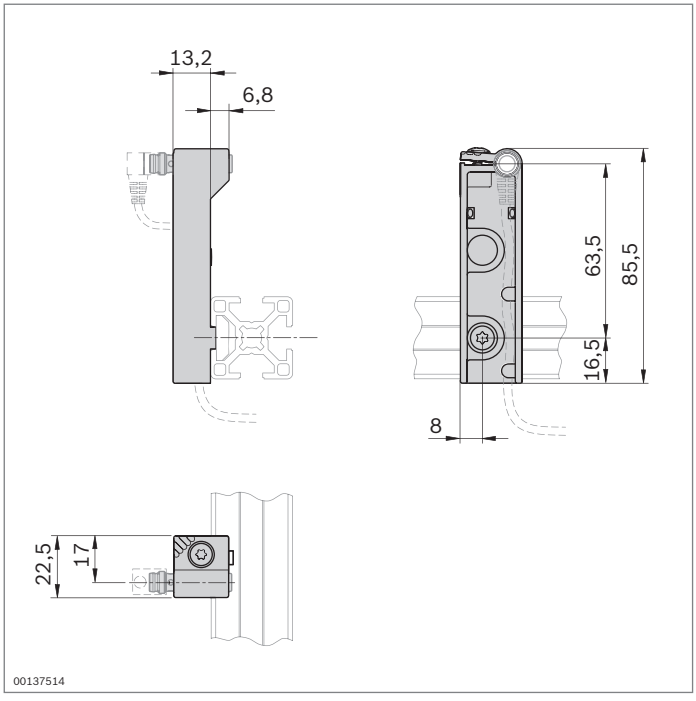


Switch bracket SH 1/S

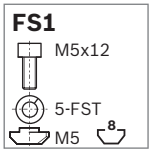


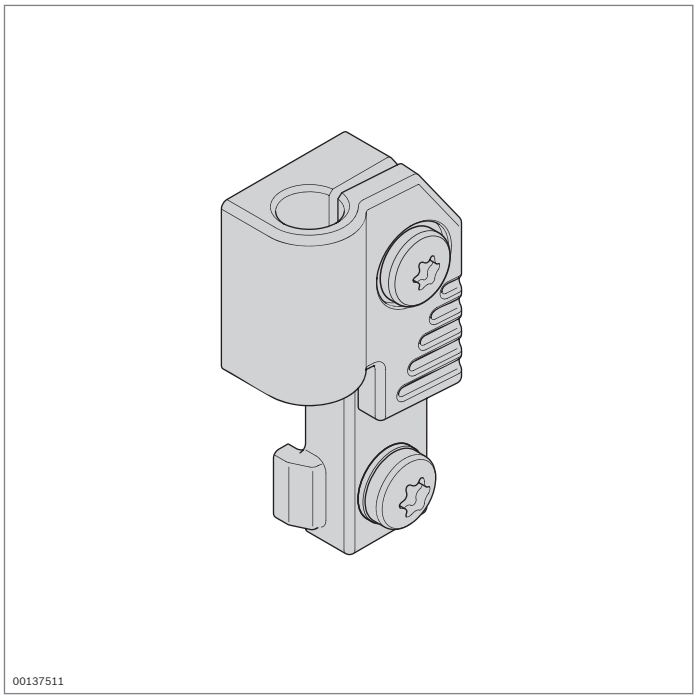
- For fastening a proximity switch Ø 6.5 mm

Required accessories:
Proximity switch Ø 6.5 mm (p. 18-8)



Switch bracket	ESD	No.	FS
SH 1/S	ESD	**3 842 542 556**	FS1
Material:	SH 1/S: PE 6.6, black Fastening material: steel, galvanized		
Scope of delivery:	Incl. fastening material (FS)		



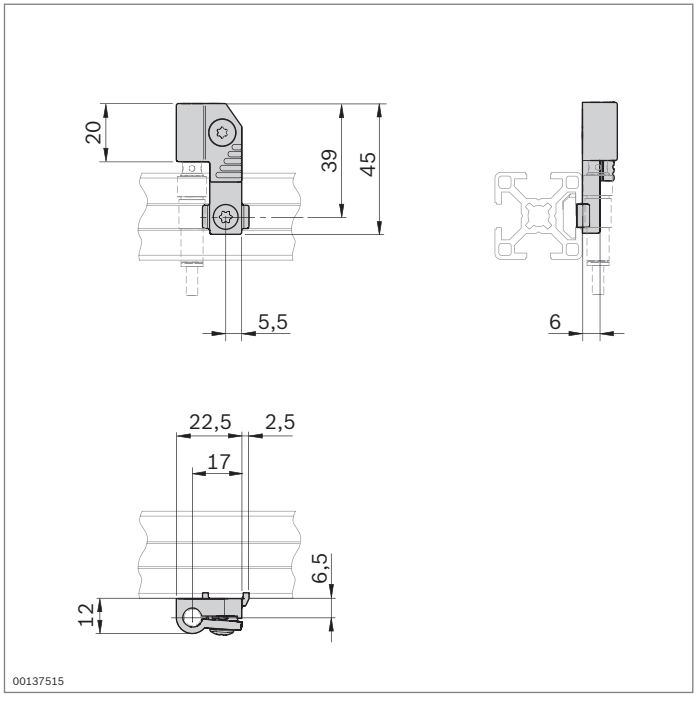


Switch bracket SH 1/U

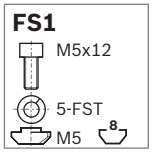


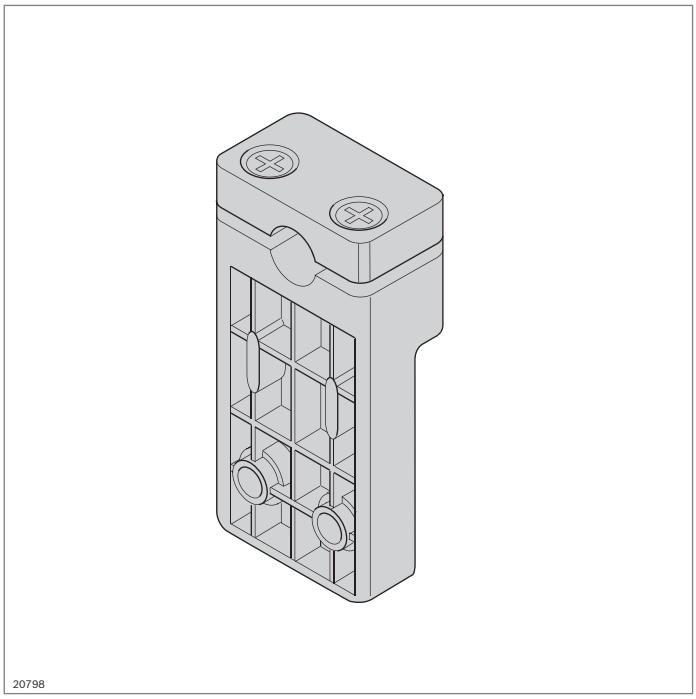
▶ For fastening a proximity switch Ø 6.5 mm

Required accessories:
Proximity switch Ø 6.5 mm (p. 18-8)



Switch bracket	ESD	No.	FS
SH 1/U	ESD	**3 842 542 555**	FS1
Material:	SH 1/U: PE 6.6, black Fastening material: steel, galvanized		
Scope of delivery:	Incl. fastening material (FS)		



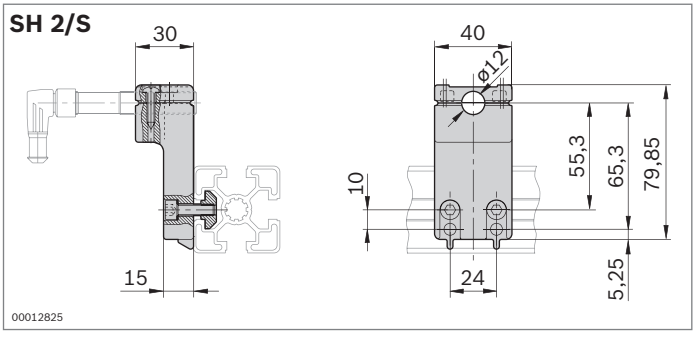


Switch bracket SH 2/S, SH 2/ST

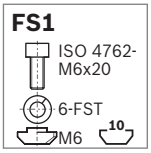


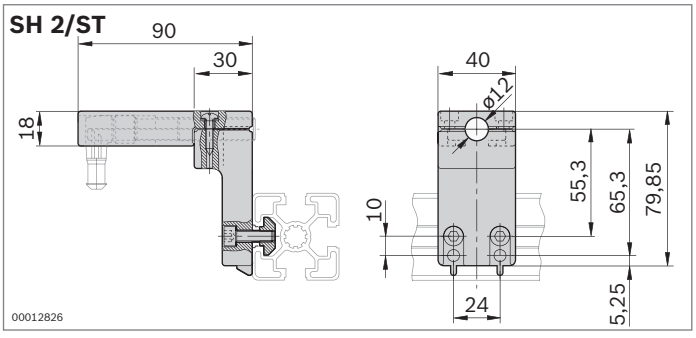
- For fastening a proximity switch M12x50
- SH 2/ST: switch cover to protect switches and cables

Required accessories:
Proximity switch M12x50 (p. 18-9)

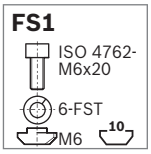


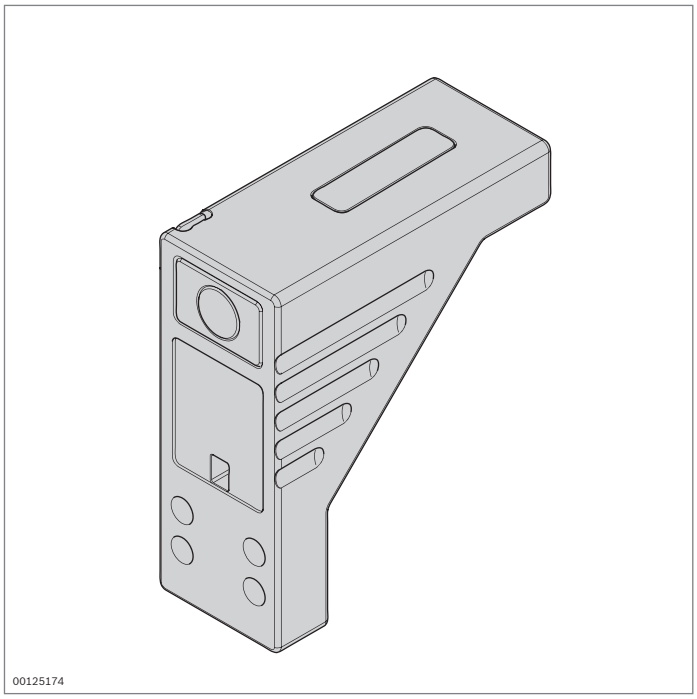
Switch bracket		No.	FS
SH 2/S		**3 842 168 830**	2xFS1
Material:	Housing: PA6, black Switch cover (30 mm): PA6, black Fastening material: steel, galvanized		
Scope of delivery:	Incl. fastening material (FS)		





Switch bracket		No.	FS
SH 2/ST		**3 842 168 850**	2xFS1
Material:	Housing: PA6, black Switch cover (90 mm): ABS, transparent Fastening material: steel, galvanized		
Scope of delivery:	Incl. fastening material (FS)		



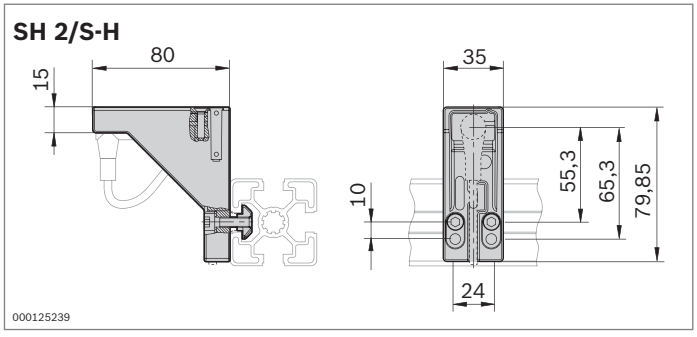


Switch bracket SH 2/S-H

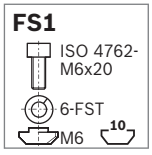


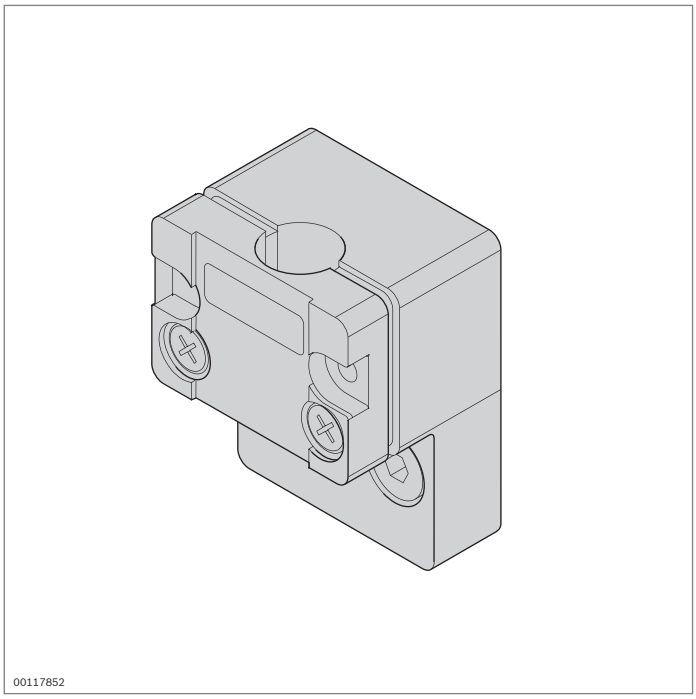
- For fastening a proximity switch M12x50
- Especially sturdy metal version
- Bearing load up to 100 kg
- Centering lugs for pre-positioning and fast assembly in the profile slot
- Integrated stop for 12 mm sensor
- Integrated cable guide

Required accessories:
Proximity switch M12x50 (p. 18-9)



Switch bracket		No.	FS
SH 2/S-H		**3 842 537 280**	2xFS1
Material:	SH 2/S-H: diecast aluminum Fastening material: steel, galvanized		
Scope of delivery:	Incl. fastening material (FS)		





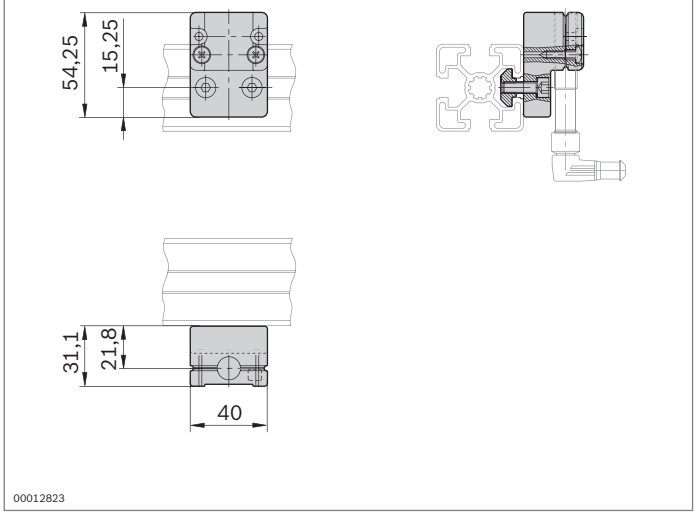
Switch bracket SH 2/U



- For fastening a proximity switch M12x50

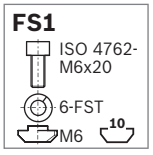
Required accessories:
Proximity switch M12x50 (p. 18-9)

SH 2/U

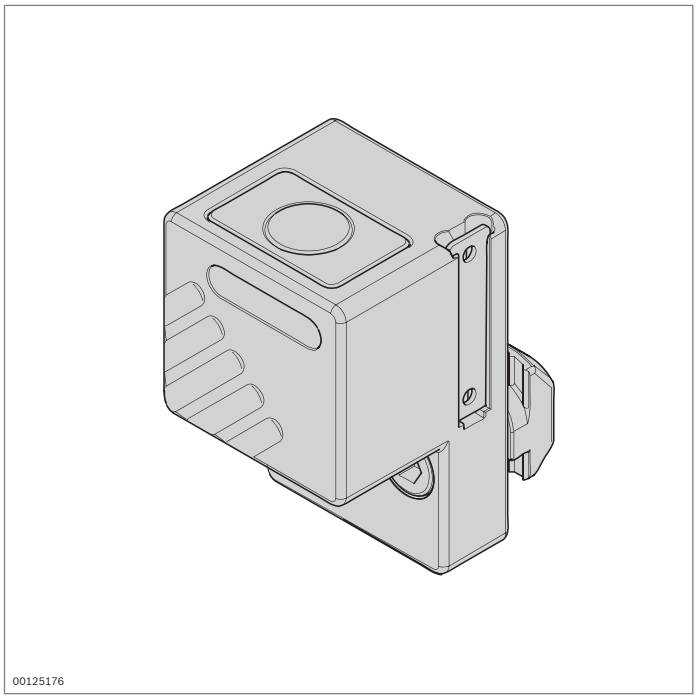


Switch bracket	No.	FS
SH 2/U	**3 842 168 820**	2xFS1, 2xFS2

Material:	SH 2/U: PA6 granulate, black Fastening material: steel, galvanized
Scope of delivery:	Incl. fastening material (FS)







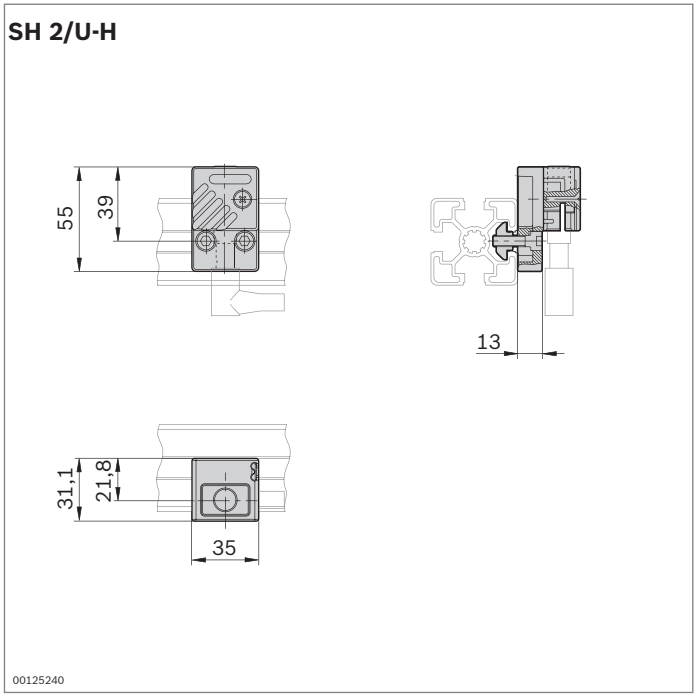
Switch bracket SH 2/U-H



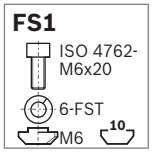
- For fastening a proximity switch M12x50
- Especially sturdy metal version
- Bearing load up to 100 kg
- Centering lugs for pre-positioning and fast assembly in the profile slot
- Integrated stop for 12 mm sensor

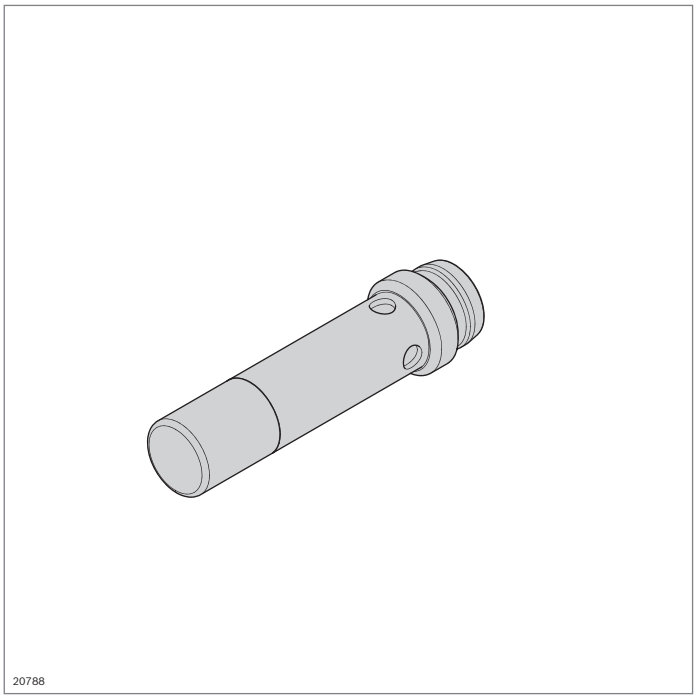
Required accessories:
Proximity switch M12x50 (p. 18-9)

SH 2/U-H



Switch bracket		No.	FS
SH 2/U-H		**3 842 537 289**	2xFS1
Material:	SH 2/U-H: diecast aluminum Fastening material: steel, galvanized		
Scope of delivery:	Incl. fastening material (FS)		

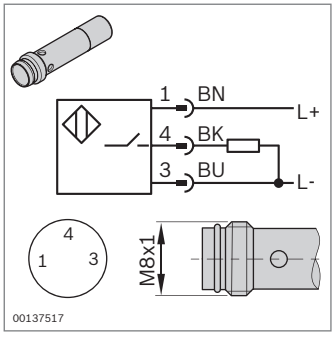




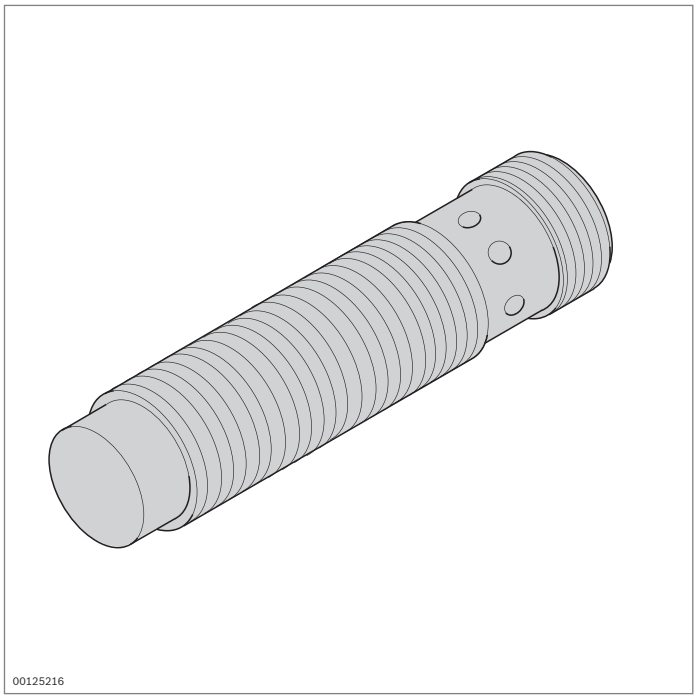
Proximity switch Ø 6.5 x 30 mm, inductive

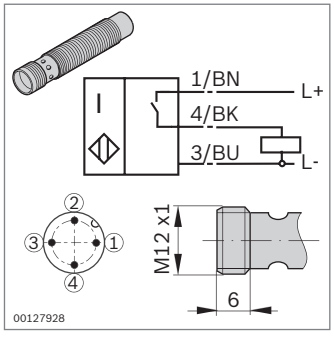
- For installation in switch bracket SH 1/...
- Version:
  - NO PNP
  - Optical LED function display
  - Compact length of 30 mm; Ø 6.5 mm
  - M8 plug connection
  - Switch distance S_N = 4 mm
  - Operating voltage: 0 to 30 V
  - Switching frequency 1500 Hz
  - Operating current 200 mA
  - IP67 protection class
  - Ambient temperature: -20 to 70°C

Required accessories:
Switch bracket SH 1/... (p. 18-2 f.)



Proximity switch		No.
Ø 6.5x30 mm		**3 842 542 500**
Material:	Brass, nickel-plated	



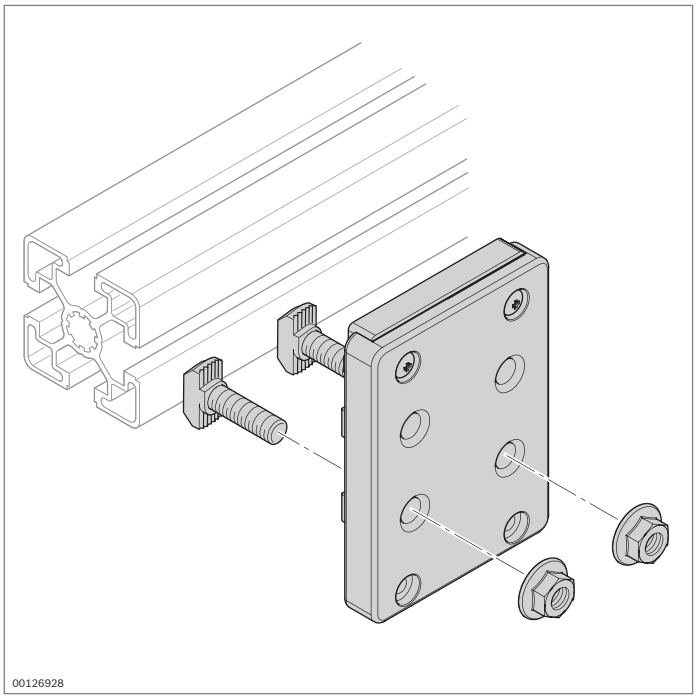


Proximity switch M12x50, inductive

- For installation in switch bracket SH2/...
- Version:
  - NO PNP according to IEC/EN 60947-5-2-2004
  - Connection via V1 plug (M12)
  - Resistant to media such as test oil and test fuel
  - Optical LED function display
  - Gold-plated contacts
  - Compact length of 50 mm
  - Metal thread M12x1
  - Switch distance S_N = 7 mm
  - Operating voltage: 0 to 30 V
  - Switching frequency: 300 Hz
  - Operating current: 150 mA
  - No-load current: max. 15 mA
  - Protection class: IP67
  - Ambient temperature: -25 to 70°C

Required accessories:
Switch bracket SH 2/... (p. 18-4 ff.)

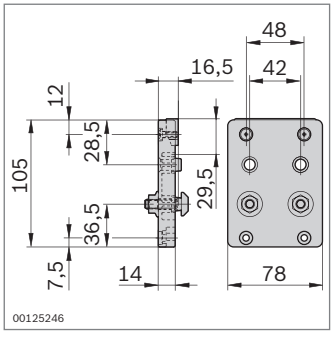
Proximity switch	**No.**
M12x50 mm	**3 842 537 995**
Material: Brass, nickel-plated	

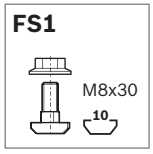


Stop



- Can be mounted to profiles with 10 mm slot
- Centering aid can be broken off for flexible installation





Stop	ESD	No.	FS
	ESD	**3 842 519 717**	2xFS1

Material:	Stop: PA6 Fastening material: steel, galvanized
Scope of delivery:	Incl. fastening material (FS)

Technical data

Technical data for strut profiles

EN AW – Al MgSi		Material designation according to DIN EN 573 for Rexroth strut profiles
EN AW – 6060		Material number according to DIN EN 573
R_m	= 245 N/mm²	Minimum tensile strength (in direction of pressure)
$R_{p0.2}$	= 195 N/mm²	0.2% proof stress (in direction of pressure)
A_5 A_{10}	= 10 % = 8 %	Ductile yield A_5 or A_{10}
E	= 70,000 N/mm²	Modulus of elasticity E
75 HB		Brinell hardness
$\alpha_{(-50 \text{ to } +20°C)}$ $\alpha_{(+20 \text{ to } 100°C)}$	= 21.8 x 10^{-6} 1/K = 23.4 x 10^{-6} 1/K	Longitudinal expansion coefficient

μ	= 0.34	Poisson's ratio

E6/EV1 - 12 µm - 300 HV	Anodizing process – layer thickness – layer hardness

Permitted dimensional tolerance T (mm) for profiles from different deliveries

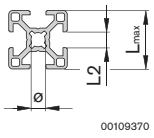
L_{max}	11–20	22.5–30	40	45–60
T	±0.15	±0.2	+0.6	±0.3

L_{max}	80	90	120	160
T	+0.8	±0.4	+1.0	+1.6

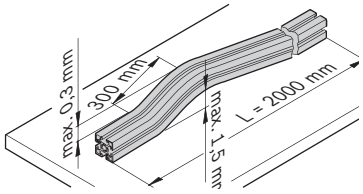
L_{max}	180	270	360
T	±0.6	±1.0	±1.5

L2	6	8	10
T	+0.3	+0.3	+0.4

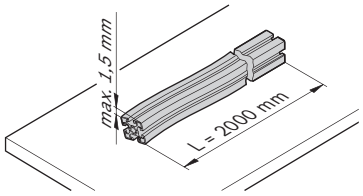
Ø	5.5	7.3	10	15
T	-0.1 +0.2	-0.1 +0.2	±0.15	±0.15



Deviation limits and form tolerances according to DIN EN 12020-2
Rexroth profiles normally fall well below the generally valid standard tolerances.
These values are specifically defined for the individual products.

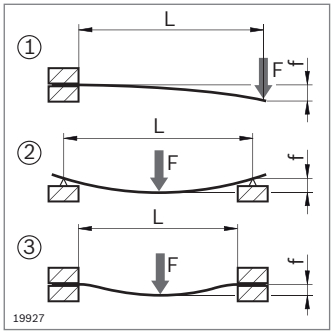


Longitudinal straightness tolerance of profile



Longitudinal torsional tolerance of profile

Profile deflection

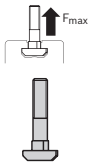
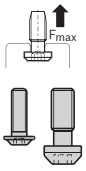
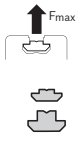
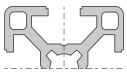
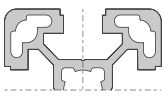
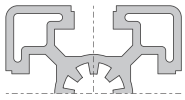
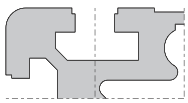


$f_{①} = \frac{F \times L^3}{3\ E \times I \times 10^4}$ $f_{②} = \frac{F \times L^3}{48\ E \times I \times 10^4}$ $f_{③} = \frac{F \times L^3}{192\ E \times I \times 10^4}$	Profile deflection from force F for static stress cases ①②③
$f_{①} = \frac{m' \times g \times L^4}{8\ E \times I \times 10^4}$ $f_{②} = \frac{5 \times m' \times g \times L^4}{384\ E \times I \times 10^4}$ $f_{③} = \frac{m' \times g \times L^4}{384\ E \times I \times 10^4}$	Profile deflection from the profile's own weight
$\sigma_{①} = \frac{(m' \times g \times L + F) \times L}{W \times 10^3}$ $\sigma_{②} = \frac{(m' \times g \times L + F) \times L}{4\ W \times 10^3}$ $\sigma_{③} = \frac{(m' \times g \times L + F) \times L}{8\ W \times 10^3}$	Control of max. occurring bending stress $\sigma_{b\ max}$
$\sigma_{b\ max} < \sigma_{b\ perm}$! $\sigma_{b\ perm} = \frac{R_{p0.2}}{S_{F\ req}}$	$S_{F\ req}$: Safety value required to avoid deformation (flow) $\sigma_{b\ perm}$: Max. permissible bending stress

f (mm)	W (cm^3)
F (N)	E = 70,000 N/mm^2
L (mm)	m' (kg/mm); m' = m/1000; m (p. 2-4 ... 2-7)
I (cm^4)	g = 9.81 $m/s^2 \approx 10\ m/s^2$

Profile slot load carrying capacity

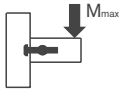
Static load limit values of slot (beginning of plastic deformation) **on connectors with the largest thread**

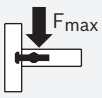
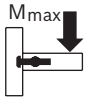
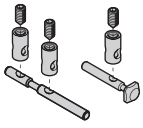
			 T-bolt	 T-nut	 Central bolt	 Sliding block, swivel-in	 Sliding block
		20x20, 20x20R 10x40 20x40, 20x60 20x40x40	1700 N	1700 N	2000 N	–	3000 N
		30x30, 30x30R 30x30°, 30x45°, 30x60° 11x20, 15x120 30x45, 30x60, 30x60x60 30x90, 30x120	4000 N	4000 N	5000 N	2200 N	6000 N
		90x90SL 40x40L, 40x40L R 40x30°, 40x45°, 40x60° 40x80L, 40x120L, 40x160L 40x80x80L 80x80L 80x120L, 80x160L 45x45L, 45x45L R 45x30°, 45x45°, 45x60° 15x22.5, 15x180, 22.5x45 45x90L, 45x90x90L 50x50L, 50x50L R 50x100L, 50x150L 100x100L, 100x200L 60x60L	6000 N 7000 N	6000 N 7000 N	9000 N 10,000 N	8000 N 9000 N	11,000 N 12,000 N
		45x45 60x60 90x90L 22.5x180 45x60 45x90, 45x180 90x180L	12,000 N	12,000 N	15,000 N	13,000 N	17,000 N
		45x270 60x90 90x90 90x180 90x360	18,000 N	18,000 N	22,000 N	18,000 N	24,000 N

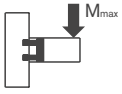
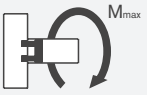
Profile connection load carrying capacity

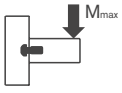
The stated torque and load limit values were determined using a test model (dry). Safety factors and building specifications required by law and standard technical rules must be observed!

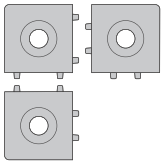
Static load limit values of connection (beginning of plastic deformation)

	D	Slot				
	8	6 / 6	2.5 Nm	450 N	18 Nm	
	11	8 / 8	12 Nm	500 N	40 Nm	
	11	8 / 10	12 Nm	2000 N	70 Nm	
	17	10 / 10	25 Nm	4000 N	140 Nm	
Quick connector (p. 3-48)	9.8	10 / 10	6 Nm	800 N	50 Nm	

		Slot						
	30x30	8	12 Nm	1100 N	35 Nm	24 Nm	650 N	40 Nm
	40x40L	10	25 Nm	1500 N	110 Nm	100 Nm	1000 N	80 Nm
	45x45L	10	25 Nm	1500 N	120 Nm	110 Nm	1000 N	95 Nm
	45x45	10	25 Nm	1500 N	140 Nm	145 Nm	1100 N	180 Nm
	50x50L	10	25 Nm	1500 N	150 Nm	160 Nm	1100 N	180 Nm
Quick connector, bendable (p. 3-51)								

		**Slot**				
	ø11, L=30	8	6 Nm	2500 N	60 Nm	20 Nm
	ø17, L=40	10	25 Nm	4000 N	180 Nm	40 Nm
	ø17, L=45	10	25 Nm	4000 N	180 Nm	60 Nm
	ø17, L=50	10	25 Nm	4000 N	200 Nm	65 Nm
	ø17, L=60	10	25 Nm	4000 N	200 Nm	80 Nm
	ø17, L=80	10	25 Nm	5000 N	800 Nm	170 Nm
	ø17, L=90	10	25 Nm	5000 N	800 Nm	200 Nm
	ø17, L=100	10	25 Nm	5000 N	1000 Nm	480 Nm
Bolt connector (p. 3-54)	ø28, L=22.5	10	25 Nm	2000 N	–	–

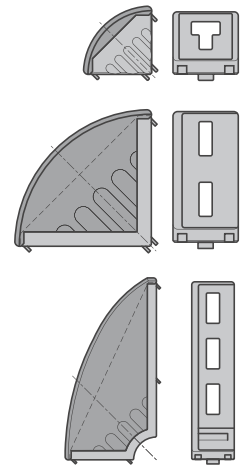
		**Slot**				
	S6	6	10 Nm	500 N	8 Nm	
	S8	8	25 Nm	800 N	43 Nm	
	S12	10	35 Nm	1300 N	80 Nm	
Central bolt (p. 3-36)	M12	10	35 Nm	3000 N	80 Nm	

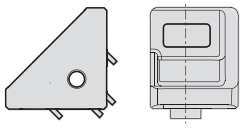
		Slot			M_{max}	$\frac{M_{max}}{2}$ / $\frac{M_{max}}{2}$
	20/2	6	↻ 10 Nm		18 Nm	
	20/3	6	↻ 10 Nm			23 Nm
	30/2	8	↻ 25 Nm		80 Nm	
	30/3	8	↻ 25 Nm			85 Nm
	40/2	10	↻ 35 Nm		60 Nm	
	40/3	10	↻ 35 Nm			70 Nm
	45/2	10	↻ 35 Nm	45x45L	150 Nm	
				45x45	200 Nm	
	45/3	10	↻ 35 Nm	45x45L		170 Nm
				45x45		240 Nm
	50/2	10	↻ 35 Nm		120 Nm	
Cubic connector (p. 3-38)	50/3	10	↻ 35 Nm			140 Nm

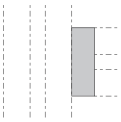
		Profile	Slot		F_{max}	M_{max}	M_{max}
	SV8	30x...	8	↻ 6 Nm	1000 N	35 Nm	15 Nm
	SV 10L	45x... L	10	↻ 15 Nm	3500 N	110 Nm	30 Nm
	SV 10	40x..., 45x...	10	↻ 15 Nm	3500 N	110 Nm	30 Nm
Tensioning connector (p. 3-12)		60x...	10	↻ 15 Nm	3500 N	195 Nm	60 Nm

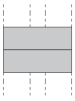
	Slot		F_{max}	M_{max}
	8 / 8	↻ 12 Nm	2200 N	50 Nm
	10 / 10	↻ 15 Nm	2800 N	100 Nm
Inner bracket (p. 3-13)				

	Slot		F_{max}	M_{max}
	6 / 6	↻ 3 Nm	600 N	10 Nm
	8 / 8	↻ 12 Nm	2500 N	50 Nm
Inner bracket R (p. 3-14)	10 / 10	↻ 15 Nm	3000 N	100 Nm

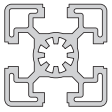
6 8 10		Slot		F_{max}	M_{max}	M_{max}	M_{max}
	20/20	6	5 Nm	700 N	6 Nm	25 Nm	–
	20/40	6	5 Nm	1400 N	15 Nm	50 Nm	8 Nm
	30/30	8	10 Nm	1250 N	25 Nm	75 Nm	–
	30/60	8	10 Nm	2500 N	100 Nm	170 Nm	25 Nm
	30/120	8	10 Nm	3750 N	100 Nm		47 Nm
	60/60-8	8	10 Nm	5000 N	320 Nm	370 Nm	110 Nm
	60/60-10	10	25 Nm	3000 N	125 Nm	150 Nm	–
	40/40	10	25 Nm	3000 N	55 Nm	145 Nm	35 Nm
	40/80	10	25 Nm	6000 N	180 Nm	400 Nm	60 Nm
	40/160	10	25 Nm	9000 N	250 Nm		60 Nm
	80/80	10	25 Nm	14000 N	500 Nm	1000 Nm	400 Nm
	45/45	10	25 Nm	3000 N	60 Nm	160 Nm	–
	45/90	10	25 Nm	6000 N	180 Nm	400 Nm	60 Nm
	45/180	10	25 Nm	9000 N	250 Nm		65 Nm
	90/90	10	25 Nm	12000 N	370 Nm	800 Nm	200 Nm
	43x42	10	25 Nm	2000 N	–	160 Nm	–
	50/50	10	25 Nm	4000 N	125 Nm	250 Nm	38 Nm
	50/100	10	25 Nm	7500 N	300 Nm	600 Nm	73 Nm
Bracket (p. 3-17)	100/100	10	25 Nm	15000 N	550 Nm	1100 Nm	480 Nm

6 8 10		Slot		F_{max}	M_{max}	M_{max}
	S 20x20	6	2.5 Nm	700 N	3.6 Nm	25 Nm
	S 30x30	8	8.5 Nm	1250 N	16 Nm	75 Nm
	S 40x40	10	25 Nm	3000 N	36 Nm	160 Nm
	S 45x45	10	25 Nm	3000 N	36 Nm	160 Nm
Bracket S (p. 7-8)						

8 10		Slot		F_{max}	M_{max}
	30x30	8	↻ 25 Nm (S8)/5 Nm (M5)	4000 N	80 Nm
	40x40	10	↻ 35 Nm (S12)/10 Nm (M6)	9000 N	150 Nm
	45x45	10	↻ 35 Nm (S12)/10 Nm (M6)	9000 N	200 Nm
	50x50	10	↻ 35 Nm (S12)/10 Nm (M6)	10000 N	170 Nm
T-connector (p. 3-45)					

8 10					M_{ma}
	30x30	8	↻ 25 Nm (S8)/5 Nm (M5)		81 Nm
	40x40	10	↻ 35 Nm (S12)/10 Nm (M6)		170 Nm
	45x45	10	↻ 35 Nm (S12)/10 Nm (M6)		200 Nm
End connector (p. 3-43)	50x50	10	↻ 35 Nm (S12)/10 Nm (M6)		180 Nm

Profile connection load carrying capacity with radial compensation (p. 2-78)

				Slot		F_{max}	M_{max}	M_{max}
	30x30		S8	8	↻ 25 Nm	600 N	37 Nm	28 Nm
				8 / 8	↻ 12 Nm	600 N	37 Nm	28 Nm
	40x40		M12 S12	10	↻ 30 Nm	1000 N	47 Nm	55 Nm
				10 / 10	↻ 22 Nm	1000 N	47 Nm	55 Nm
 	45x45		S12 M12	10	↻ 35 Nm	1200 N	53 Nm	59 Nm
				10 / 10	↻ 25 Nm	1200 N	53 Nm	59 Nm

Material Number Overview

0 842 901 309	12-2
1 070 170 261	13-48
1 845 719 000	2-80
3 842 071 941	12-31
3 842 111 987	3-10
3 842 111 988	3-10
3 842 111 989	3-10
3 842 146 813	3-31
3 842 146 815	3-32
3 842 146 848	3-32
3 842 146 877	13-7/8, 13-17/18, 13-31/32
3 842 146 901	2-77
3 842 146 902	8-25
3 842 146 905	8-24
3 842 146 906	7-2
3 842 146 920	11-4
3 842 146 972	3-56
3 842 168 820	18-6
3 842 168 830	18-4
3 842 168 850	18-4
3 842 184 738	2-75, 7-6
3 842 191 094	2-39
3 842 191 175	3-44
3 842 191 182	2-77
3 842 191 194	8-25
3 842 218 940	12-10
3 842 218 941	12-10
3 842 218 942	12-10
3 842 218 953	12-2
3 842 242 400	2-44, 2-45/46, 13-24, 13-31, 13-38
3 842 242 404	8-25
3 842 259 790	6-21
3 842 259 791	6-21
3 842 259 792	6-22
3 842 259 793	6-22
3 842 259 794	6-22
3 842 305 766	7-12
3 842 305 767	7-12
3 842 305 768	7-12
3 842 311 950	6-5
3 842 311 951	6-5
3 842 311 956	6-5
3 842 319 500	12-15
3 842 319 501	12-15
3 842 338 990	2-57
3 842 345 081	3-6, 3-31/32, 6-11, 10-5
3 842 346 595	4-8
3 842 348 526	3-25
3 842 352 009	3-25
3 842 352 061	6-5
3 842 352 085	5-4
3 842 500 287	9-5
3 842 500 921	3-54
3 842 500 922	3-54
3 842 500 923	3-54
3 842 501 232	2-16, 2-19/20
3 842 501 576	12-11
3 842 501 577	2-47
3 842 501 578	12-11
3 842 501 587	3-19
3 842 501 751	3-4
3 842 501 752	3-4
3 842 501 753	3-4
3 842 501 962	2-77
3 842 502 137	3-19
3 842 502 257	6-4
3 842 502 674	2-34, 2-38, 10-5, 13-31
3 842 502 683	4-2
3 842 502 687	4-5
3 842 502 688	4-5
3 842 503 073	2-77
3 842 503 143	2-16, 2-19/20
3 842 503 242	5-6
3 842 503 844	2-47
3 842 503 845	2-41, 13-17, 13-24
3 842 504 760	3-29
3 842 504 790	6-7
3 842 505 144	4-5
3 842 506 948	2-16
3 842 506 949	2-17
3 842 506 950	2-16
3 842 506 951	2-17
3 842 506 956	2-35
3 842 506 957	2-35
3 842 506 958	2-35
3 842 506 959	2-36
3 842 508 087	5-5
3 842 508 088	5-5
3 842 508 102	2-55
3 842 508 104	2-56
3 842 508 116	2-56
3 842 508 967	12-31
3 842 509 175	2-38
3 842 509 177	8-24
3 842 509 178	2-16
3 842 509 179	2-47
3 842 509 183	2-51
3 842 509 184	2-39
3 842 509 185	2-51
3 842 509 186	2-41
3 842 509 187	2-41
3 842 509 188	2-45
3 842 509 189	2-44
3 842 509 658	2-43
3 842 510 078	3-7
3 842 510 145	5-5
3 842 510 165	9-5
3 842 510 293	2-51
3 842 510 462	9-5, 12-5
3 842 510 464	9-5
3 842 511 352	6-6
3 842 511 702	2-34
3 842 511 704	2-21
3 842 511 782	2-40
3 842 511 783	2-39/40/41/42, 13-12, 13-31, 13-38
3 842 511 841	13-18
3 842 511 855	2-39, 2-40/41
3 842 511 872	2-50
3 842 511 874	2-50/51
3 842 511 876	2-50/51
3 842 511 893	6-5
3 842 512 603	2-19
3 842 513 517	12-9
3 842 513 576	2-46
3 842 513 581	2-21
3 842 513 584	2-21
3 842 513 646	13-10
3 842 513 648	13-36, 13-43
3 842 514 519	14-8
3 842 514 522	14-8
3 842 514 523	14-8
3 842 514 524	14-8
3 842 514 567	6-10
3 842 514 568	6-5
3 842 514 663	2-51
3 842 514 664	2-44
3 842 514 928	3-7
3 842 514 929	3-7
3 842 514 930	3-7
3 842 514 931	3-7, 12-9
3 842 515 122	2-39, 13-7
3 842 515 229	2-54
3 842 515 244	7-13
3 842 515 366	6-17
3 842 515 367	6-17
3 842 515 457	6-15
3 842 515 459	6-15
3 842 515 473	3-28
3 842 515 531	10-20
3 842 515 547	3-28
3 842 515 863	10-20
3 842 516 015	2-45
3 842 516 165	9-6
3 842 516 175	6-10
3 842 516 214	2-43, 2-45, 13-17
3 842 516 506	2-16, 2-19/20
3 842 516 598	8-20
3 842 516 669	3-7
3 842 516 685	3-7
3 842 516 694	8-22
3 842 516 715	8-10
3 842 516 720	2-54
3 842 516 729	14-5
3 842 516 731	14-5
3 842 516 837	7-11
3 842 516 838	7-11
3 842 516 845	4-10
3 842 516 846	4-10
3 842 516 847	4-3, 4-10
3 842 516 848	4-10
3 842 516 849	4-10
3 842 516 850	4-10
3 842 516 851	4-10
3 842 516 905	17-3
3 842 516 908	17-3
3 842 517 057	2-16, 2-19/20
3 842 517 058	2-34, 2-38
3 842 517 059	2-34, 2-38
3 842 517 132	3-38
3 842 517 146	3-41
3 842 517 147	3-41
3 842 517 179	2-11
3 842 517 180	2-12
3 842 517 183	2-12
3 842 517 198	2-18
3 842 517 200	2-37
3 842 517 243	2-11, 2-13
3 842 517 247	2-12
3 842 517 248	2-18
3 842 517 250	2-37
3 842 517 281	3-41
3 842 517 282	3-41
3 842 517 290	3-42
3 842 517 291	3-42
3 842 517 543	3-39
3 842 517 614	2-11, 2-13
3 842 517 854	2-39
3 842 517 855	2-39
3 842 518 204	2-76
3 842 518 205	2-76
3 842 518 343	7-2
3 842 518 347	7-2
3 842 518 351	7-2
3 842 518 367	2-77
3 842 518 368	2-77
3 842 518 369	2-77
3 842 518 375	2-77
3 842 518 376	2-77
3 842 518 377	2-77
3 842 518 424	3-29
3 842 518 426	3-47
3 842 518 427	3-35
3 842 518 492	8-20
3 842 518 650	14-7
3 842 518 738	8-17
3 842 518 740	9-6
3 842 518 743	6-4
3 842 518 797	9-3
3 842 518 798	9-3
3 842 518 856	13-13, 13-15
3 842 518 897	13-25
3 842 518 898	13-39
3 842 519 318	3-41
3 842 519 319	3-41
3 842 519 321	3-42
3 842 519 465	17-2
3 842 519 565	7-4
3 842 519 567	7-4
3 842 519 658	2-12
3 842 519 717	18-10
3 842 520 000	12-15
3 842 520 025	2-42
3 842 520 802	3-46
3 842 520 922	2-59
3 842 521 216	3-35
3 842 521 262	4-7
3 842 521 263	4-7
3 842 521 265	2-37
3 842 521 510	2-62
3 842 521 513	2-62, 12-4
3 842 521 580	3-28, 12-5
3 842 521 817	6-5
3 842 522 012	17-3
3 842 522 087	17-2
3 842 522 124	4-10
3 842 522 301	6-5
3 842 522 303	6-5
3 842 522 345	10-7
3 842 522 462	10-7
3 842 522 463	10-7
3 842 522 464	10-7
3 842 522 465	10-7
3 842 522 466	10-4
3 842 522 467	10-4, 10-10, 10-14
3 842 522 468	10-4, 10-12
3 842 522 469	10-4, 10-12, 10-13
3 842 522 475	10-18
3 842 522 476	10-18
3 842 522 477	10-18
3 842 522 479	8-12, 10-14
3 842 522 481	10-8
3 842 522 633	4-6
3 842 522 634	4-6
3 842 523 014	9-2, 11-2
3 842 523 092	5-4
3 842 523 093	5-6
3 842 523 094	5-6
3 842 523 097	5-3
3 842 523 098	5-3
3 842 523 102	5-6
3 842 523 135	3-4
3 842 523 140	3-7
3 842 523 142	3-7
3 842 523 145	3-7

3 842 523 165	10-10
3 842 523 166	10-10
3 842 523 167	10-5, 10-10, 10-14
3 842 523 170	10-11
3 842 523 205	12-7
3 842 523 206	12-7
3 842 523 207	12-8
3 842 523 209	12-7
3 842 523 210	12-7
3 842 523 211	12-8
3 842 523 212	12-6
3 842 523 213	12-6
3 842 523 243	8-11
3 842 523 254	2-77
3 842 523 256	2-77
3 842 523 258	2-77
3 842 523 308	10-17
3 842 523 320	8-12, 10-14
3 842 523 354	2-13
3 842 523 438	3-7
3 842 523 442	2-34, 2-38
3 842 523 493	7-3
3 842 523 494	7-3
3 842 523 508	3-18
3 842 523 511	3-18
3 842 523 513	3-18
3 842 523 516	3-18
3 842 523 517	3-18
3 842 523 520	3-18
3 842 523 522	3-18
3 842 523 525	3-19
3 842 523 528	3-19
3 842 523 530	3-19
3 842 523 532	3-19
3 842 523 534	3-19
3 842 523 537	3-19/20/21
3 842 523 538	3-20
3 842 523 541	3-20
3 842 523 543	3-20
3 842 523 546	3-21
3 842 523 549	3-21
3 842 523 551	3-21
3 842 523 553	3-21
3 842 523 555	3-21
3 842 523 558	3-23
3 842 523 561	3-23
3 842 523 563	3-23
3 842 523 567	3-24
3 842 523 570	3-24
3 842 523 572	3-24
3 842 523 575	3-25
3 842 523 578	3-25
3 842 523 580	3-25
3 842 523 583	3-24
3 842 523 585	3-24
3 842 523 587	3-20
3 842 523 589	3-20
3 842 523 593	3-23
3 842 523 598	2-62, 12-4
3 842 523 872	3-38
3 842 523 873	3-39
3 842 523 874	3-40
3 842 523 875	3-38
3 842 523 876	3-39
3 842 523 877	3-40
3 842 523 918	12-35
3 842 523 920	3-6
3 842 523 921	3-6
3 842 523 922	3-6
3 842 523 925	3-6
3 842 524 012	3-5
3 842 524 025	7-5
3 842 524 026	7-5
3 842 524 027	7-5
3 842 524 028	7-5
3 842 524 031	2-17
3 842 524 034	2-18
3 842 524 037	2-18
3 842 524 040	2-36
3 842 524 043	2-36
3 842 524 046	2-37
3 842 524 049	2-19
3 842 524 050	2-17
3 842 524 051	2-18
3 842 524 052	2-18
3 842 524 053	2-36
3 842 524 054	2-36
3 842 524 055	2-37
3 842 524 058	2-53
3 842 524 061	2-53
3 842 524 064	2-53
3 842 524 067	2-53
3 842 524 069	7-10
3 842 524 072	7-10
3 842 524 153	2-62, 12-5
3 842 524 163	10-12
3 842 524 164	10-12
3 842 524 165	10-13
3 842 524 166	10-13
3 842 524 414	2-78
3 842 524 415	2-78
3 842 524 469	6-11
3 842 524 476	3-45
3 842 524 478	3-38
3 842 524 479	3-39
3 842 524 480	3-40
3 842 524 484	3-38
3 842 524 485	3-39
3 842 524 486	3-40
3 842 524 490	12-5
3 842 524 499	6-17
3 842 524 500	6-17
3 842 524 622	8-20
3 842 524 623	8-20
3 842 524 986	9-8
3 842 525 014	10-19
3 842 525 103	3-38
3 842 525 104	3-39
3 842 525 105	3-39/40
3 842 525 158	10-5, 10-13
3 842 525 443	12-21
3 842 525 480	8-17
3 842 525 481	8-17
3 842 525 505	2-37
3 842 525 737	12-22
3 842 525 738	12-22
3 842 525 739	12-22
3 842 525 740	12-22
3 842 525 741	12-22
3 842 525 742	12-22
3 842 525 766	8-17
3 842 525 767	8-17
3 842 525 780	10-15
3 842 525 781	10-14
3 842 525 782	10-14
3 842 525 821	8-11, 10-14
3 842 525 822	8-11, 10-14
3 842 525 823	8-11
3 842 525 833	10-16
3 842 525 946	8-13
3 842 525 947	8-13
3 842 526 003	3-43
3 842 526 034	12-21
3 842 526 410	13-7, 13-9
3 842 526 411	13-7, 13-10
3 842 526 412	13-17, 13-21
3 842 526 413	13-17, 13-21
3 842 526 414	13-31, 13-35
3 842 526 415	13-31, 13-35
3 842 526 416	13-12, 13-14
3 842 526 417	13-12, 13-15
3 842 526 422	13-22, 13-29
3 842 526 560	3-32, 6-10, 6-12
3 842 526 561	6-8, 6-11, 6-12
3 842 526 564	11-3
3 842 526 565	11-3
3 842 526 588	8-22
3 842 526 589	14-7
3 842 526 591	8-22
3 842 526 626	2-61
3 842 526 627	2-61
3 842 526 628	2-61
3 842 526 660	2-61
3 842 526 665	2-61
3 842 526 671	2-60
3 842 526 672	2-60
3 842 526 673	2-60
3 842 526 786	10-15
3 842 526 787	10-15
3 842 526 817	2-14
3 842 526 821	2-47
3 842 526 822	2-14
3 842 526 823	2-22
3 842 526 824	2-47
3 842 526 863	13-24, 13-28
3 842 526 865	13-24, 13-28
3 842 526 867	13-38, 13-42
3 842 526 869	13-38, 13-42
3 842 526 878	13-32
3 842 526 893	13-51
3 842 526 894	13-51
3 842 526 895	13-51
3 842 527 174	2-59, 3-36
3 842 527 185	7-3
3 842 527 186	6-5
3 842 527 226	13-8, 13-13, 13-18/19/20, 13-25/26/27, 13-32/33/34, 13-39/40/41, 13-56
3 842 527 553	6-11, 10-5
3 842 527 738	16-6
3 842 527 851	16-6
3 842 527 988	2-42
3 842 528 009	16-9
3 842 528 189	6-12
3 842 528 191	6-12
3 842 528 539	16-13
3 842 528 540	16-13
3 842 528 574	5-4, 5-6, 14-3
3 842 528 577	14-3
3 842 528 586	14-6
3 842 528 588	14-6
3 842 528 590	14-6
3 842 528 593	3-36
3 842 528 715	3-6, 3-31/32
3 842 528 718	3-6
3 842 528 721	3-6, 6-11, 10-5
3 842 528 724	3-6
3 842 528 727	3-6
3 842 528 735	3-7, 12-9, 12-11
3 842 528 738	3-7
3 842 528 741	3-7
3 842 528 744	3-7
3 842 528 746	3-35
3 842 528 751	3-31/32
3 842 528 967	3-21
3 842 528 968	2-25, 2-30, 2-32
3 842 528 969	2-48
3 842 529 005	3-22
3 842 529 006	3-22
3 842 529 007	3-21
3 842 529 008	3-22
3 842 529 009	3-22
3 842 529 010	3-39
3 842 529 011	3-39
3 842 529 012	3-40
3 842 529 013	3-40
3 842 529 016	3-42
3 842 529 018	3-42
3 842 529 020	3-28
3 842 529 021	3-40
3 842 529 024	6-5
3 842 529 025	6-4
3 842 529 026	2-78
3 842 529 036	2-29/30/31
3 842 529 039	2-31, 2-33
3 842 529 042	2-49/50
3 842 529 044	2-28
3 842 529 045	2-25
3 842 529 046	2-29
3 842 529 047	2-48
3 842 529 049	2-27
3 842 529 050	2-27
3 842 529 051	2-27
3 842 529 052	2-49
3 842 529 053	2-33
3 842 529 239	7-6
3 842 529 248	3-53, 5-5
3 842 529 293	3-53
3 842 529 294	3-9
3 842 529 295	3-9
3 842 529 296	3-9
3 842 529 297	3-9
3 842 529 298	3-9
3 842 529 299	3-9
3 842 529 300	3-9
3 842 529 319	3-8
3 842 529 320	3-8
3 842 529 321	3-8
3 842 529 323	3-8
3 842 529 324	3-8
3 842 529 325	3-8
3 842 529 327	3-8
3 842 529 334	3-53, 5-5
3 842 529 339	2-25
3 842 529 341	2-29
3 842 529 345	2-31
3 842 529 347	2-31
3 842 529 349	2-33
3 842 529 351	2-48
3 842 529 355	2-49
3 842 529 357	2-50
3 842 529 359	2-28
3 842 529 361	2-25
3 842 529 363	2-26
3 842 529 365	2-26
3 842 529 367	2-26
3 842 529 371	2-27
3 842 529 373	2-27
3 842 529 375	2-27
3 842 529 381	2-28

3 842 529 383	3-21
3 842 529 386	3-22
3 842 529 395	3-39
3 842 529 397	3-39
3 842 529 399	3-40
3 842 529 401	3-40
3 842 529 404	3-42
3 842 529 416	6-6
3 842 529 417	6-6
3 842 529 752	2-30, 2-32
3 842 529 761	7-5
3 842 529 762	7-5
3 842 529 850	16-4
3 842 529 931	12-33
3 842 529 933	12-34
3 842 529 954	2-25
3 842 530 136	2-28
3 842 530 231	3-23
3 842 530 232	3-23
3 842 530 235	3-36
3 842 530 236	3-36, 3-39/40, 10-5
3 842 530 241	9-7
3 842 530 259	3-26
3 842 530 260	3-26
3 842 530 281	3-4
3 842 530 283	2-80, 3-4
3 842 530 285	3-4, 8-12, 13-7, 13-8, 13-20, 13-27, 13-34, 13-41
3 842 530 287	3-4, 13-17/18, 13-31/32
3 842 530 303	8-21, 12-3
3 842 530 304	2-58
3 842 530 306	2-80
3 842 530 316	3-8
3 842 530 321	3-8
3 842 530 325	3-37
3 842 530 326	3-37
3 842 530 329	12-6
3 842 530 352	8-16
3 842 530 353	8-16
3 842 530 360	3-23
3 842 530 361	3-27
3 842 530 381	3-26
3 842 530 382	3-26
3 842 530 383	3-26
3 842 530 384	3-26
3 842 530 400	14-4
3 842 530 417	12-35
3 842 530 460	3-27
3 842 530 461	3-27
3 842 530 864	12-35
3 842 531 144	3-34
3 842 531 146	3-34
3 842 531 219	2-21
3 842 531 220	2-21
3 842 532 195	3-45
3 842 532 196	3-43
3 842 532 198	3-46
3 842 532 199	3-44
3 842 532 205	3-47
3 842 532 206	4-7
3 842 532 207	4-7
3 842 532 208	4-6
3 842 532 209	4-6
3 842 532 274	3-28
3 842 532 363	11-2
3 842 532 505	2-65, 12-30
3 842 532 508	12-30
3 842 532 608	2-64, 12-28
3 842 532 695	2-64, 12-27
3 842 532 696	2-65, 12-28
3 842 532 697	2-64, 12-28
3 842 532 752	12-14
3 842 532 862	12-14
3 842 532 865	12-14
3 842 532 866	12-14
3 842 532 867	12-14
3 842 532 870	12-14
3 842 532 871	12-18
3 842 532 878	2-67
3 842 532 879	2-67
3 842 532 880	12-14
3 842 532 881	12-14
3 842 532 883	12-14
3 842 532 884	12-14
3 842 532 886	12-13
3 842 532 887	12-13
3 842 533 293	3-33
3 842 533 294	3-33
3 842 533 295	3-33
3 842 533 296	3-34
3 842 533 305	6-14
3 842 533 306	6-14
3 842 533 307	6-13
3 842 533 308	6-13
3 842 533 309	6-13
3 842 533 310	6-5
3 842 533 841	16-4
3 842 533 901	6-14
3 842 535 115	2-63, 12-13
3 842 535 118	2-67
3 842 535 121	12-16
3 842 535 122	12-16
3 842 535 124	12-15
3 842 535 136	2-79
3 842 535 176	2-21
3 842 535 364	12-17
3 842 535 428	3-47
3 842 535 458	3-49
3 842 535 459	3-49
3 842 535 464	3-49
3 842 535 465	3-50
3 842 535 466	3-50
3 842 535 571	3-15, 8-24
3 842 535 572	3-13
3 842 535 573	3-14
3 842 535 574	3-13
3 842 535 575	3-14
3 842 535 576	3-15
3 842 535 577	3-15
3 842 535 578	3-13
3 842 535 583	3-54, 4-2
3 842 535 586	2-21
3 842 535 617	3-55
3 842 535 618	3-54
3 842 535 619	3-55
3 842 535 620	3-54
3 842 535 621	3-54
3 842 535 622	3-54
3 842 535 624	3-54
3 842 535 625	3-16
3 842 535 626	3-16
3 842 535 627	3-16
3 842 535 629	3-52
3 842 535 630	3-51
3 842 535 634	3-51
3 842 535 635	3-52
3 842 535 637	2-55
3 842 535 645	13-7, 13-9
3 842 535 661	2-54
3 842 535 662	13-7/8, 13-12/13
3 842 535 663	13-31, 13-33, 13-38, 13-40
3 842 535 664	13-17, 13-19, 13-24, 13-26
3 842 535 665	13-33, 13-40
3 842 535 666	13-19, 13-26
3 842 535 667	12-22
3 842 535 668	12-22
3 842 535 669	6-15
3 842 535 670	6-15
3 842 535 676	11-2
3 842 535 680	13-17, 13-22, 13-24, 13-29, 13-31, 13-36, 13-38, 13-43
3 842 535 681	13-12, 13-15
3 842 535 682	13-7, 13-10
3 842 535 683	12-22
3 842 535 684	8-4
3 842 535 696	7-6
3 842 535 719	5-4
3 842 535 721	5-3
3 842 535 835	2-67, 2-68
3 842 535 921	11-2
3 842 536 002	2-67
3 842 536 054	12-25
3 842 536 055	12-23
3 842 536 056	12-23
3 842 536 057	12-23
3 842 536 119	3-31
3 842 536 120	3-31
3 842 536 121	3-31
3 842 536 122	3-31
3 842 536 123	3-31
3 842 536 124	3-31
3 842 536 125	3-31
3 842 536 126	3-31
3 842 536 148	7-11, 17-4
3 842 536 207	6-9
3 842 536 268	12-35
3 842 536 270	12-35
3 842 536 295	16-7
3 842 536 320	17-3
3 842 536 321	2-76, 6-15
3 842 536 436	2-29/30/31
3 842 536 437	2-25, 2-30
3 842 536 438	2-39/40 2-41/42
3 842 536 470	6-5
3 842 536 472	2-19
3 842 536 475	2-11
3 842 536 478	2-11
3 842 536 481	2-32
3 842 536 484	2-29
3 842 536 489	7-8
3 842 536 490	7-8
3 842 536 491	7-8
3 842 536 493	7-7
3 842 536 494	7-7
3 842 536 495	7-7
3 842 536 531	8-23
3 842 536 532	8-23
3 842 536 533	8-26
3 842 536 536	8-26
3 842 536 537	8-26
3 842 536 540	8-26
3 842 536 556	8-18
3 842 536 560	6-6
3 842 536 562	6-6
3 842 536 564	6-6
3 842 536 566	6-6
3 842 536 578	6-20
3 842 536 581	6-8
3 842 536 599	3-4
3 842 536 600	3-4
3 842 536 601	3-4
3 842 536 602	3-4
3 842 536 603	3-4
3 842 536 604	3-4
3 842 536 605	3-4
3 842 536 606	3-4
3 842 536 669	3-8
3 842 536 670	7-8
3 842 536 671	7-8
3 842 536 672	7-8
3 842 536 673	3-9
3 842 536 675	3-9
3 842 536 676	3-9
3 842 536 694	6-3
3 842 536 695	6-3
3 842 536 696	6-3
3 842 536 701	6-19
3 842 536 722	12-19
3 842 536 724	12-20
3 842 536 729	3-30
3 842 536 730	2-68
3 842 536 736	6-18
3 842 536 737	6-18
3 842 536 738	6-18
3 842 536 746	6-9
3 842 536 787	3-35
3 842 536 792	12-34
3 842 536 811	6-2
3 842 536 812	6-2
3 842 536 902	6-20
3 842 537 013	3-48
3 842 537 100	2-43
3 842 537 102	2-39
3 842 537 113	2-79
3 842 537 116	2-79
3 842 537 119	2-79
3 842 537 135	2-80
3 842 537 163	12-22
3 842 537 164	12-22
3 842 537 206	6-3
3 842 537 220	6-2
3 842 537 222	6-2
3 842 537 223	6-2
3 842 537 224	6-2
3 842 537 225	6-2
3 842 537 226	6-2
3 842 537 227	6-2
3 842 537 228	6-2
3 842 537 229	6-2
3 842 537 230	6-2
3 842 537 231	6-2
3 842 537 232	6-2
3 842 537 280	18-5
3 842 537 289	18-7
3 842 537 321	12-21
3 842 537 477	2-68
3 842 537 556	14-2
3 842 537 583	12-25
3 842 537 584	12-25
3 842 537 592	12-26
3 842 537 593	12-26
3 842 537 594	2-46
3 842 537 650	2-79
3 842 537 651	2-79

3 842 537 652	2-79
3 842 537 657	12-20
3 842 537 660	12-16
3 842 537 661	12-16
3 842 537 664	12-26
3 842 537 665	12-26
3 842 537 679	2-57
3 842 537 681	2-57
3 842 537 687	12-19
3 842 537 718	2-67/68
3 842 537 720	12-17
3 842 537 740	12-25
3 842 537 776	12-18
3 842 537 777	12-18
3 842 537 778	12-18
3 842 537 779	12-18
3 842 537 803	12-15
3 842 537 806	12-15
3 842 537 807	12-15
3 842 537 812	2-47
3 842 537 816	2-13
3 842 537 817	2-52
3 842 537 818	2-13
3 842 537 819	2-13
3 842 537 821	2-22
3 842 537 823	2-42
3 842 537 824	2-30
3 842 537 825	2-48
3 842 537 826	2-49
3 842 537 827	2-30
3 842 537 828	2-33
3 842 537 861	3-30
3 842 537 862	3-30
3 842 537 888	12-34
3 842 537 889	12-34
3 842 537 890	12-34
3 842 537 894	12-24
3 842 537 895	12-24
3 842 537 896	12-24
3 842 537 897	12-24
3 842 537 898	12-24
3 842 537 899	12-24
3 842 537 900	12-24
3 842 537 901	12-24
3 842 537 911	12-20, 12-26
3 842 537 944	12-13
3 842 537 945	12-13
3 842 537 947	12-13
3 842 537 948	12-14
3 842 537 951	12-17
3 842 537 958	12-14
3 842 537 959	12-14
3 842 537 960	12-14
3 842 537 961	12-14
3 842 537 962	12-14
3 842 537 963	12-14
3 842 537 964	12-14
3 842 537 965	12-14
3 842 537 995	13-55, 18-9
3 842 538 064	12-15
3 842 538 065	12-15
3 842 538 093	2-79
3 842 538 094	12-13
3 842 538 208	16-5
3 842 538 209	16-4
3 842 538 241	8-14
3 842 538 245	12-15
3 842 538 275	4-9
3 842 538 276	4-9
3 842 538 280	2-57/58
3 842 538 287	2-32
3 842 538 296	2-44
3 842 538 297	2-43
3 842 538 298	2-40
3 842 538 299	2-40
3 842 538 330	2-30
3 842 538 334	2-32
3 842 538 372	12-19
3 842 538 388	16-3
3 842 538 389	16-4
3 842 538 489	3-12
3 842 538 490	3-12
3 842 538 491	3-12
3 842 538 555	6-3
3 842 538 556	6-3
3 842 538 557	6-3
3 842 538 558	6-3
3 842 538 559	6-3
3 842 538 562	3-48
3 842 538 563	3-50
3 842 538 564	3-50
3 842 538 565	3-37
3 842 538 566	3-37
3 842 538 567	3-37
3 842 538 607	4-4, 4-10
3 842 538 656	3-43
3 842 538 657	3-43
3 842 538 658	3-44
3 842 538 660	4-8
3 842 538 673	6-3
3 842 538 674	6-3
3 842 538 675	6-3
3 842 538 676	6-3
3 842 538 677	6-3
3 842 538 678	6-3
3 842 538 679	6-3
3 842 538 680	6-3
3 842 538 683	4-2
3 842 538 684	4-3
3 842 538 685	4-3
3 842 538 686	4-4
3 842 538 687	4-4
3 842 538 688	4-6
3 842 538 689	4-6
3 842 538 690	4-6
3 842 538 691	4-6
3 842 538 692	4-7
3 842 538 693	4-7
3 842 538 694	4-7
3 842 538 695	4-7
3 842 538 696	3-45
3 842 538 697	3-45
3 842 538 698	3-46
3 842 538 700	3-47
3 842 538 701	3-47
3 842 538 702	3-47
3 842 538 703	3-28
3 842 538 704	3-28
3 842 538 705	3-28
3 842 538 706	3-29
3 842 538 707	3-18
3 842 538 708	3-18
3 842 538 709	3-19
3 842 538 710	3-19
3 842 538 711	3-19
3 842 538 712	3-20
3 842 538 713	3-21
3 842 538 714	3-21
3 842 538 715	3-21
3 842 538 716	3-21
3 842 538 717	3-22
3 842 538 718	3-23
3 842 538 719	3-23
3 842 538 720	3-24
3 842 538 721	3-25
3 842 538 725	3-38
3 842 538 726	3-38
3 842 538 727	3-39
3 842 538 728	3-39
3 842 538 729	3-39
3 842 538 730	3-39
3 842 538 731	3-40
3 842 538 732	3-40
3 842 538 748	3-20
3 842 538 749	3-22
3 842 538 750	3-24
3 842 538 829	16-3
3 842 538 832	6-3
3 842 538 833	6-3
3 842 538 834	6-3
3 842 538 835	6-3
3 842 538 836	6-3
3 842 538 932	6-3
3 842 538 934	6-3
3 842 538 955	2-77
3 842 538 956	2-77
3 842 538 957	2-77
3 842 538 958	2-77
3 842 539 120	13-12, 13-14
3 842 539 339	16-11
3 842 539 340	16-4
3 842 539 344	16-12
3 842 539 345	16-5
3 842 539 367	13-54
3 842 539 368	13-54
3 842 539 369	13-54
3 842 539 370	13-54
3 842 539 382	13-46, 13-50
3 842 539 383	13-46, 13-50
3 842 539 384	13-46, 13-50
3 842 539 385	13-46, 13-50
3 842 539 386	13-46, 13-50
3 842 539 387	13-46, 13-50
3 842 539 412	13-8
3 842 539 414	13-13
3 842 539 415	13-18, 13-25
3 842 539 416	13-32, 13-39
3 842 539 494	16-10
3 842 539 495	16-10
3 842 539 496	16-10
3 842 539 497	16-11
3 842 539 498	16-9
3 842 539 499	16-9
3 842 539 500	16-11
3 842 539 501	16-11
3 842 539 505	16-12
3 842 539 520	13-53
3 842 539 521	13-53
3 842 539 522	13-53
3 842 539 523	13-53
3 842 539 613	16-5
3 842 539 799	4-5
3 842 539 800	4-5
3 842 539 826	16-12
3 842 539 894	15-2
3 842 539 895	15-3
3 842 539 896	15-3
3 842 539 897	15-3
3 842 539 898	15-3
3 842 540 012	15-2
3 842 540 018	13-46/47
3 842 540 019	13-46/47
3 842 540 020	13-46/47
3 842 540 021	13-46/47
3 842 540 022	13-46/47
3 842 540 023	13-46/47
3 842 540 173	6-12
3 842 540 668	6-10, 6-12
3 842 540 870	2-19/20
3 842 540 900	13-62
3 842 540 955	2-34
3 842 541 008	12-23
3 842 541 173	2-72
3 842 541 175	2-72
3 842 541 178	2-72
3 842 541 181	2-72
3 842 541 183	2-72
3 842 541 185	2-71
3 842 541 187	2-73
3 842 541 190	2-74
3 842 541 193	2-74
3 842 541 195	2-71
3 842 541 196	2-71
3 842 541 211	2-71
3 842 541 213	2-71
3 842 541 226	6-17
3 842 541 228	6-17
3 842 541 230	6-17
3 842 541 232	6-17
3 842 541 234	6-17
3 842 541 236	6-17
3 842 541 238	6-17
3 842 541 240	6-17
3 842 541 242	6-17
3 842 541 244	6-17
3 842 541 246	3-5
3 842 541 296	2-74
3 842 541 393	3-9
3 842 541 409	3-5
3 842 541 410	3-50
3 842 541 412	3-49
3 842 541 807	2-76
3 842 541 814	2-63, 12-13
3 842 541 937	2-20
3 842 541 939	2-20
3 842 542 146	10-8
3 842 542 328	7-9
3 842 542 329	7-9
3 842 542 330	7-9
3 842 542 435	2-77
3 842 542 500	18-8
3 842 542 555	18-3
3 842 542 556	18-2
3 842 542 667	6-8
3 842 542 668	6-9
3 842 542 669	6-9
3 842 542 683	8-15
3 842 542 684	8-15
3 842 542 692	3-7
3 842 542 693	3-7
3 842 542 694	3-7
3 842 542 696	2-59
3 842 542 698	2-59
3 842 542 736	3-11
3 842 542 737	3-11
3 842 543 272	2-73
3 842 543 311	2-75
3 842 543 321	8-7
3 842 543 322	8-7
3 842 543 323	8-7

3 842 543 324	8-7	3 842 990 323	2-41	3 842 992 376	2-39	3 842 992 898	2-45, 13-38
3 842 543 325	8-7	3 842 990 325	2-41	3 842 992 378	2-45	3 842 992 903	2-64, 12-28
3 842 543 326	8-7	3 842 990 329	2-41	3 842 992 387	2-42	3 842 992 913	2-52
3 842 543 327	8-7	3 842 990 331	2-41	3 842 992 388	2-42	3 842 992 924	2-12
3 842 543 328	8-7	3 842 990 335	2-41, 13-17, 13-24	3 842 992 397	2-16	3 842 992 925	13-12/13
3 842 543 329	8-7	3 842 990 336	2-41	3 842 992 398	2-17	3 842 992 926	2-19
3 842 543 330	8-7	3 842 990 339	2-41, 13-17	3 842 992 399	2-16	3 842 992 927	2-42, 13-31, 13-38
3 842 543 331	8-7	3 842 990 342	2-41	3 842 992 400	2-17	3 842 992 928	2-42, 13-31
3 842 543 332	8-7	3 842 990 344	2-41	3 842 992 401	2-35	3 842 992 945	2-37
3 842 543 333	8-7	3 842 990 345	2-47	3 842 992 402	2-35	3 842 992 946	2-62, 12-4
3 842 543 334	8-7	3 842 990 346	2-47	3 842 992 403	2-35	3 842 992 953	2-34
3 842 543 371	8-3	3 842 990 347	2-47	3 842 992 404	2-36	3 842 992 954	2-34
3 842 543 372	8-3	3 842 990 350	2-51	3 842 992 411	2-55	3 842 992 956	2-34
3 842 543 401	4-3	3 842 990 351	2-51	3 842 992 412	2-56	3 842 992 960	2-34
3 842 543 402	4-3	3 842 990 352	2-51	3 842 992 415	2-43, 13-17	3 842 992 961	2-44
3 842 543 403	4-4	3 842 990 353	2-51	3 842 992 416	2-43	3 842 992 962	2-51
3 842 543 404	4-4	3 842 990 354	2-51	3 842 992 417	2-43	3 842 992 963	2-51
3 842 543 408	8-19	3 842 990 355	2-51	3 842 992 418	2-43, 13-17	3 842 992 965	2-16
3 842 543 409	8-19	3 842 990 357	2-51	3 842 992 419	2-43	3 842 992 967	2-34
3 842 543 410	8-19	3 842 990 359	2-51	3 842 992 420	2-43	3 842 992 969	2-38
3 842 543 411	8-19	3 842 990 370	2-51	3 842 992 421	2-43	3 842 992 970	10-7
3 842 543 412	8-19	3 842 990 373	2-51	3 842 992 422	2-43	3 842 992 971	10-7
3 842 543 480	2-73	3 842 990 409	2-65, 12-28	3 842 992 423	2-43	3 842 992 972	10-7
3 842 543 494	2-75	3 842 990 416	2-45, 13-31, 13-38	3 842 992 425	2-34, 10-5	3 842 992 973	10-7
3 842 544 500	8-5	3 842 990 417	2-45	3 842 992 426	2-34	3 842 992 977	10-7
3 842 544 501	8-5	3 842 990 418	2-45	3 842 992 427	2-34	3 842 992 978	10-7
3 842 544 502	8-5	3 842 990 419	2-45	3 842 992 430	2-21	3 842 992 991	2-13
3 842 544 503	8-5	3 842 990 421	2-45	3 842 992 431	2-21	3 842 992 992	2-13
3 842 544 504	8-5	3 842 990 450	2-51	3 842 992 432	2-40, 13-12	3 842 992 999	2-37
3 842 544 505	8-5	3 842 990 453	2-51	3 842 992 433	2-40	3 842 993 001	2-37
3 842 544 506	8-5	3 842 990 454	2-51	3 842 992 435	2-40	3 842 993 010	2-17
3 842 544 507	8-5	3 842 990 464	2-51	3 842 992 436	2-40	3 842 993 011	2-18
3 842 544 525	8-6	3 842 990 472	2-51	3 842 992 437	2-40	3 842 993 012	2-18
3 842 544 526	8-6	3 842 990 478	2-51	3 842 992 438	13-17/18	3 842 993 013	2-36
3 842 544 527	8-6	3 842 990 481	2-51	3 842 992 440	13-24/25	3 842 993 014	2-36
3 842 544 528	8-6	3 842 990 500	2-44, 13-24	3 842 992 441	13-38/39	3 842 993 015	2-37
3 842 544 529	8-6	3 842 990 501	2-44	3 842 992 443	2-50	3 842 993 016	2-19
3 842 544 530	8-6	3 842 990 502	2-44	3 842 992 444	2-50	3 842 993 017	2-53
3 842 544 531	8-6	3 842 990 505	2-44	3 842 992 445	2-50	3 842 993 018	2-53
3 842 544 552	8-8	3 842 990 507	2-44	3 842 992 446	2-50	3 842 993 019	2-53
3 842 544 553	8-8	3 842 990 517	2-38	3 842 992 447	2-50	3 842 993 020	2-53
3 842 544 554	8-8	3 842 990 518	2-38	3 842 992 448	2-50	3 842 993 029	12-21
3 842 544 562	8-9	3 842 990 519	2-38	3 842 992 449	2-50	3 842 993 033	2-21
3 842 544 637	2-75	3 842 990 520	2-38	3 842 992 452	2-40	3 842 993 052	12-35
3 842 544 661	8-3	3 842 990 521	2-38	3 842 992 453	2-40	3 842 993 061	13-7/8
3 842 546 519	9-4	3 842 990 570	2-39, 13-7	3 842 992 457	2-19	3 842 993 062	13-17/18
3 842 546 560	10-9	3 842 990 571	2-39	3 842 992 458	2-19	3 842 993 071	2-60
3 842 990 087	2-47	3 842 990 572	2-39	3 842 992 459	2-19	3 842 993 072	2-60
3 842 990 090	2-47	3 842 990 573	2-39	3 842 992 460	2-19	3 842 993 073	2-60
3 842 990 091	2-47	3 842 990 575	2-39	3 842 992 462	2-19	3 842 993 077	2-14
3 842 990 092	2-44	3 842 990 584	2-39	3 842 992 463	2-19	3 842 993 078	2-22
3 842 990 093	2-44	3 842 990 640	2-38	3 842 992 473	2-46	3 842 993 079	2-47
3 842 990 094	2-44	3 842 990 642	2-38	3 842 992 474	2-46	3 842 993 080	13-31/32
3 842 990 097	2-51	3 842 990 644	2-38	3 842 992 475	2-46	3 842 993 081	2-45, 13-31
3 842 990 098	2-51	3 842 990 646	2-38	3 842 992 476	2-21	3 842 993 082	2-44, 13-24
3 842 990 099	2-51	3 842 990 648	2-38	3 842 992 493	2-54	3 842 993 083	2-44
3 842 990 111	9-5	3 842 990 670	2-39	3 842 992 676	2-63, 12-27	3 842 993 084	2-40, 13-12
3 842 990 115	8-24	3 842 990 672	2-39	3 842 992 857	2-45	3 842 993 085	2-39, 13-7
3 842 990 116	8-24	3 842 990 674	2-39	3 842 992 858	2-45	3 842 993 120	2-25
3 842 990 292	2-47	3 842 990 688	2-39	3 842 992 859	2-45	3 842 993 121	2-25
3 842 990 300	2-41	3 842 990 690	2-39	3 842 992 860	2-45	3 842 993 122	2-25
3 842 990 301	2-41	3 842 990 720	2-16	3 842 992 861	2-45	3 842 993 123	2-25
3 842 990 302	2-41	3 842 990 721	2-16	3 842 992 864	2-45	3 842 993 124	2-25
3 842 990 303	2-41	3 842 990 722	2-16	3 842 992 884	2-64, 12-27	3 842 993 125	2-25
3 842 990 304	2-41	3 842 990 723	2-16	3 842 992 888	2-11	3 842 993 126	2-25
3 842 990 305	2-41	3 842 990 724	2-16	3 842 992 889	2-12	3 842 993 127	2-33
3 842 990 307	2-41	3 842 990 725	2-16	3 842 992 890	2-12	3 842 993 128	2-33
3 842 990 309	2-41	3 842 990 726	2-16	3 842 992 891	2-13	3 842 993 129	2-25
3 842 990 311	2-41	3 842 992 373	2-44	3 842 992 896	2-18	3 842 993 130	2-29
3 842 990 313	2-41	3 842 992 375	2-39	3 842 992 897	2-37	3 842 993 131	2-29

3 842 993 132	2-29
3 842 993 133	2-31
3 842 993 134	2-31
3 842 993 135	2-29
3 842 993 136	2-29
3 842 993 137	2-29
3 842 993 138	2-29
3 842 993 139	2-30
3 842 993 140	2-30
3 842 993 141	2-30
3 842 993 142	2-30
3 842 993 143	2-31
3 842 993 144	2-31
3 842 993 145	2-31
3 842 993 146	2-31
3 842 993 147	2-31
3 842 993 148	2-31
3 842 993 149	2-31
3 842 993 150	2-31
3 842 993 151	2-31
3 842 993 152	2-33
3 842 993 153	2-33
3 842 993 154	2-33
3 842 993 155	2-33
3 842 993 156	2-48
3 842 993 157	2-48
3 842 993 158	2-48
3 842 993 159	2-48
3 842 993 160	2-48
3 842 993 161	2-48
3 842 993 162	2-48
3 842 993 163	2-48
3 842 993 164	2-48
3 842 993 165	2-48
3 842 993 166	2-48
3 842 993 167	2-48
3 842 993 168	2-48
3 842 993 169	2-48
3 842 993 170	2-48
3 842 993 171	2-49
3 842 993 172	2-49
3 842 993 173	2-49
3 842 993 174	2-49
3 842 993 175	2-49
3 842 993 176	2-49
3 842 993 177	2-49
3 842 993 178	2-50
3 842 993 179	2-50
3 842 993 180	2-50
3 842 993 181	2-50
3 842 993 182	2-50
3 842 993 183	2-50
3 842 993 184	2-28
3 842 993 185	2-25
3 842 993 186	2-25
3 842 993 187	2-26
3 842 993 188	2-26
3 842 993 189	2-26
3 842 993 190	2-26
3 842 993 191	2-26
3 842 993 192	2-26
3 842 993 193	2-30
3 842 993 194	2-49
3 842 993 195	2-27
3 842 993 196	2-49
3 842 993 197	2-27
3 842 993 198	2-27
3 842 993 199	2-49
3 842 993 200	2-49
3 842 993 201	2-33
3 842 993 202	2-33
3 842 993 203	2-33
3 842 993 204	2-33
3 842 993 225	2-30
3 842 993 226	2-33
3 842 993 227	2-50
3 842 993 228	2-49
3 842 993 229	2-33
3 842 993 230	2-11
3 842 993 231	2-11
3 842 993 256	2-28
3 842 993 257	2-28
3 842 993 259	2-64, 12-28
3 842 993 306	16-4
3 842 993 308	6-14
3 842 993 316	2-63, 12-13
3 842 993 317	2-67
3 842 993 321	12-18
3 842 993 322	12-18
3 842 993 336	2-59
3 842 993 337	2-59
3 842 993 359	2-57
3 842 993 411	2-57
3 842 993 420	2-19
3 842 993 421	2-11
3 842 993 422	2-11
3 842 993 423	2-32
3 842 993 424	2-29
3 842 993 425	8-23
3 842 993 426	8-23
3 842 993 427	8-26
3 842 993 428	8-26
3 842 993 429	8-26
3 842 993 430	8-26
3 842 993 431	12-18
3 842 993 432	12-18
3 842 993 434	2-46
3 842 993 435	2-46
3 842 993 436	2-46
3 842 993 449	2-43
3 842 993 450	2-39
3 842 993 489	2-68
3 842 993 493	2-11
3 842 993 494	2-11
3 842 993 495	2-11
3 842 993 496	2-11
3 842 993 497	2-13
3 842 993 498	2-13
3 842 993 499	2-13
3 842 993 500	2-13
3 842 993 501	2-13
3 842 993 511	12-21
3 842 993 512	12-21
3 842 993 621	2-44
3 842 993 628	2-43
3 842 993 635	2-40
3 842 993 644	2-40
3 842 993 653	2-32
3 842 993 654	2-30
3 842 993 658	2-32
3 842 993 661	2-41
3 842 993 662	2-9, 2-40
3 842 993 663	2-48
3 842 993 664	2-49
3 842 993 665	2-48
3 842 993 668	2-51
3 842 993 669	2-21
3 842 993 670	2-50
3 842 993 671	2-51
3 842 993 672	2-33
3 842 993 673	2-33
3 842 993 674	2-31
3 842 993 675	2-32
3 842 993 676	2-45
3 842 993 677	2-45
3 842 993 678	2-46
3 842 993 679	2-44
3 842 993 680	2-43
3 842 993 681	2-43
3 842 993 682	2-42
3 842 993 683	2-14
3 842 993 684	2-22
3 842 993 685	2-49
3 842 993 686	2-47
3 842 993 687	2-50
3 842 993 688	2-21
3 842 993 689	2-46
3 842 993 690	2-11
3 842 993 691	2-11
3 842 993 692	2-12
3 842 993 693	2-12
3 842 993 694	2-11
3 842 993 695	2-12
3 842 993 696	2-13
3 842 993 697	2-13
3 842 993 698	2-13
3 842 993 699	2-47
3 842 993 700	2-47
3 842 993 703	2-16
3 842 993 704	2-16
3 842 993 705	2-16
3 842 993 706	2-17
3 842 993 707	2-17
3 842 993 708	2-17
3 842 993 709	2-18
3 842 993 710	2-21
3 842 993 711	2-18
3 842 993 712	2-19
3 842 993 713	2-19
3 842 993 714	2-18
3 842 993 715	2-19
3 842 993 716	2-30
3 842 993 717	2-31
3 842 993 718	2-27
3 842 993 719	2-25
3 842 993 720	2-26
3 842 993 721	2-26
3 842 993 722	2-26
3 842 993 723	2-28
3 842 993 724	2-25
3 842 993 725	2-28
3 842 993 726	2-27
3 842 993 727	2-27
3 842 993 728	2-29
3 842 993 729	2-29
3 842 993 730	2-30
3 842 993 731	2-41
3 842 993 732	2-42
3 842 993 733	2-36
3 842 993 734	2-38
3 842 993 735	2-36
3 842 993 736	2-37
3 842 993 737	2-34
3 842 993 738	2-35
3 842 993 739	2-35
3 842 993 740	2-35
3 842 993 741	2-36
3 842 993 742	2-37
3 842 993 743	2-39
3 842 993 744	2-37
3 842 993 751	2-40
3 842 993 752	2-40
3 842 993 753	2-30
3 842 993 755	2-43
3 842 993 756	2-44
3 842 993 757	2-32
3 842 993 758	2-32
3 842 993 759	2-39
3 842 993 760	2-25
3 842 993 761	2-34
3 842 993 762	2-20
3 842 993 763	2-20
3 842 993 887	16-3
3 842 993 952	13-12/13
3 842 993 966	13-7/8
3 842 993 967	13-12/13
3 842 993 968	13-17/18, 13-24/25
3 842 993 969	13-31/32, 13-38/39
3 842 994 635	12-35
3 842 994 659	13-7, 13-10
3 842 994 662	13-31, 13-36, 13-38, 13-43
3 842 994 702	13-20, 13-27, 13-34, 13-41
3 842 994 711	13-12, 13-15
3 842 994 742	10-4
3 842 994 744	10-5
3 842 994 745	10-5
3 842 994 783	10-4
3 842 994 784	10-5
3 842 994 785	10-5
3 842 994 811	13-52
3 842 994 812	13-52
3 842 994 813	13-52
3 842 994 821	13-17, 13-22, 13-24, 13-29
3 842 994 832	12-31
3 842 994 839	12-29
3 842 994 863	16-4
3 842 994 889	12-32
3 842 994 907	12-33
3 842 994 979	2-80
3 842 994 988	12-22
3 842 994 989	12-22
3 842 995 007	12-24
3 842 995 008	12-22
3 842 995 017	12-24
3 842 995 027	2-63, 12-13
3 842 996 191	2-71
3 842 996 192	2-71
3 842 998 495	13-6, 13-46
3 842 998 496	13-11, 13-46
3 842 998 497	13-16, 13-46
3 842 998 498	13-23, 13-46
3 842 998 499	13-30, 13-46
3 842 998 500	13-37, 13-46
R 911 296 958	13-48
R 911 298 371	13-48
R 911 298 373	13-48
R 911 298 374	13-48
R 911 299 754	13-45/46
R 911 299 856	13-48
R 911 299 935	13-45/46
R 911 305 278	13-48
R 911 306 060	13-45/46
R 911 307 219	13-45/46
R 911 308 428	13-6, 13-11, 13-16, 13-23, 13-30, 13-37, 13-45, 13-48
R 911 309 170	13-48

R 911 310 460	13-48
R 911 310 645	13-48
R 911 310 648	13-48
R 911 310 652	13-48
R 911 310 655	13-48
R 911 312 231	13-48
R 911 315 705	13-45/46
R 911 316 908	13-45/46

Index

▶ **A**
Accessories for protective barriers 9-1
Actuating element 13-53
Air-supply elements 5-1
Angle profile 2-56
Anti-torsion element 3-36
Attachment kit for safety switch 10-18

▶ **B**
Ball catch 9-8
Base plate
– 120x120 6-11
– 135x135 6-10
– 150x150 6-11
– 270x360 6-10
– Steel 6-8
Bearing pedestal 4-8
Bolt connector 3-54
Bracket 2-66, 3-17
– R 3-28
– S 7-8
Bumper 9-5

▶ **C**
Cable bracket 11-3
Cable duct 11-2
Cam roller guide LF12C
– Complete axis 13-23
– Components 13-24
Cam roller guide LF12S
– Complete axis 13-16
– Components 13-17
Cam roller guide LF20C
– Complete axis 13-37
– Components 13-38
Cam roller guide LF20S
– Complete axis 13-30
– Components 13-31
Cam roller guide LF6C
– Complete axis 13-11
– Components 13-12
Cam roller guide LF6S
– Complete axis 13-6
– Components 13-7
Cam roller guides LF...C 13-5
Cam roller guides LF...S 13-4
Cap 2-76, 3-36, 3-48, 3-50, 8-24
– Diecast zinc 2-76
– With hole 2-76
Center shafts 13-51
Central bolt 3-36
Clamp bushing 7-13
Clamping element 10-17
Clamping lever
– For joints 4-10
– For lateral guides 16-13
Clamping profile 2-53
Cloth holder 2-80
Collar screw 3-5
Components
– For ESD applications 17-2
– For lateral guides 16-2
Components for sliding door 12-4
Connection elements
– Overview 3-1
– Selection criteria 3-3
Connection piece 5-4
Connection screw fitting M12-1/4“ 5-4
Connector 45° 3-47
Construction of conveyor sections, elements 12-12
Container mount 2-58
Conveyor media, profiles for installation of 2-63
Conveyor sections
– Elements for construction of 12-12
– Made of SP2 section profiles and accumulation roller chains 12-32
– Made of SP4/R section profiles and accumulation roller chains 12-29
Conveyor track
– EcoFlow 12-21
– Lean 12-13
– XLean 12-18
Conveyor track made of section profiles and roller elements 12-27
Corner bracket 3-41
Counterbalance 9-2
Cover profiles 2-77
Cover strip profile 7-10
Cross connectors 3-56
Cubic connector 3-38

▶ **D**
Damping ring 6-4
Dimensioning of synchronous shafts 13-60
Door handle 8-14
Door handle profile 8-26
Doors and fittings 8-1
Double ball stop latch 9-7
Double wheel 6-15
Drilling jigs 14-2
Drive control 13-48

▶ **E**
Earthing terminal 10-16
EcoFlow stop gates and return stops 12-24
EcoSafe components for protective fence construction 10-2
EcoSafe kit
– Double door 10-14
– Sliding door with superstructure 10-12
– System door 10-10
EcoSafe protective frame 10-4
EcoSafe sliding door without superstructure 10-13
EcoShape tubular framing system 2-69
Edge protector 8-26
Elements
– For construction of conveyor sections 12-12
– For manual movement 12-1
End connector 3-43
End piece 8-24
ESD applications, components for 17-2
eShop 2-9

▶ **F**
Feet and wheels 6-1
FiFo station 15-2
Flange 13-49
Flange nuts 3-6
Flanged plate 5-3
Floor dowels 6-12
Folding door element 8-10
Foot 6-4, 6-12
– Stainless steel 6-13
Foundation bracket 3-32
Frame profile
– 22.5x30 2-54
– 22.5x45 2-55

▶ **G**
Gears 13-47
Grab ledge 2-60

▶ **H**
Handle bar 9-5
Heavy-duty wheel 6-18
Hinge 8-4
– Adjustable 8-9
– Aluminum 8-6
– Lift-off 8-7
– Plastic 8-5
– Removable 8-8
Hinge profile 8-3
Holder 3-33
– For lateral guide, fixed 16-6
– For lateral guide, variable 16-8

▶ **I**
Inner bracket 3-13
– R 3-14
Installation elements 11-1

▶ **J**
Joints, overview 4-1
Joint
– 30x30 4-2
– 40x40 support 4-3
– 40x40 4-3
– 45x45 support 4-3
– 45x45 4-3
– 60x45 4-5
– 60x60 4-5

▶ **L**
Lateral guides,
– Components for 16-2
– Holder for, fixed 16-6
– Holder for, variable 16-8
– Profile rails for 16-3
Lettering clips 2-79
Leveling foot 6-4
Lifting wheel 6-20
Linear guide drives 13-44
Linear guides
– Overview 13-2
– Sizes, designs, loads 13-3
– Technical data, design notes, mounting instructions 13-56
Load-dependent size selection 13-57
Lock 8-12
– For EcoSafe sliding doors 8-13
– For swing and sliding doors 8-11
– For swing doors 8-16
Lock mechanism for double door 10-15
Longitudinal end connection 5-5
Longitudinal end connector 3-53
Longitudinal end connector 45 Pneu 5-6

▶ **M**
Magnet catch 9-6
Manual movement, Elements for 12-1
Material chute 2-60
Material number overview 20-1
Metal bracket 3-31
Miter bracket 3-16
Modular leveling feet 6-2
Mortise lock 8-14
Mounting rim profile 7-2
– Cleanroom 7-3
MT*pro* 1-7, 2-9
Multi-slider 12-9

▶ **O**
Offset screwdriver, Torx® 14-6

▶ **P**
Parallel connector 3-11
Pinion 12-11
Planning software 1-7
Planning tool for MGE linear guides 13-62
Plate 6-6
Profile connection load carrying capacity 19-6
Profile connectors 3-35
Profile deflection 19-4
Profile finishing 2-8
Profile rails 2-62
– For lateral guides 16-3
Profile slot load carrying capacity 19-5
Profiles for the installation of conveyor media 2-63
Protective barriers, Accessories for 9-1
Protective barriers and partition walls EcoSafe 10-1
Protective fences, EcoSafe components for the construction of 10-2
Protective grille profiles 7-12, 10-6
Protective pane profile
– PVC 7-4
– Cleanroom 7-5
Proximity switches
– 6.5x30 mm 18-8
– M12x50 18-9

Q
Quick & Easy 2-9
Quick connector 3-12
Quick connector
– Bendable, end-to-end 3-51
– Bendable, end-to-slot 3-52
– Slot 6 mm, 0°, 90° 3-48
– Slot 8/10 mm, 0° 3-49
– Slot 8/10 mm, 90° 3-50
Quick-lock 11-4

▶ **R**
Rack 12-11
Radial compensation 2-78
Rectangular tube 2-52
Refill end-piece 2-60
Retainer ring 7-9
Retaining bracket 10-9
Roller 6-16
– With mounting flange 6-21
Round tube D28 2-66
Rubber profile 2-80

▶ **S**
Safety catch 9-4
Safety handle 8-18
Safety Strip safety set 10-8
Safety switch, Attachment kit for 10-18
Seal 5-6
Sealing profile 8-20
Sealing strip 8-19
Selection help – recommended combinations 13-46
Servomotors MSK 13-45
Slide hanger 12-2
Slider 8-21
Slider
– For profiles 12-6
– For surface element 12-3
Sliding block 3-7
– Swiveling 3-8
Sliding block profile 3-7
– Swiveling 3-8
Sliding door, components for 12-4
Sliding door profile
– Al 45 8-24
– Al Clip 8-23
– PVC 8-22
Slotted plate 30x100 2-59
Software 1-7
Spring 3-7
Spring clamping element 10-19
Spring hook 12-2
Star knob 4-10
Steel bracket 3-30
Stop 18-10
Straddling nut 3-10
Strap-shaped handle 8-17
Strut profile D28x55 2-66
Strut profiles 2-2
– Overview 2-1
– Slot sizes and modular dimensions 2-3
– With slot 6 mm 2-10
– With slot 8 mm 2-15
– With slot 10 mm, modular dimension 40 mm 2-23
– With slot 10 mm, modular dimension 45 mm 2-34
– With slot 10 mm, modular dimension 50 mm 2-47
– With slot 10 mm, modular dimension 60 mm 2-50
Support of surface elements 7-1
Support rollers 12-10
Supporting arm joint 4-7
Supporting bracket 3-31, 3-34
Surface elements, support of 7-1
Suspension bracket 10-8
Suspension piece for frames 10-20
Suspension profile 2-57
Switch 13-55
Switch bracket
– SH 1/S 18-2
– SH 1/U 18-3
– SH 2/S 18-4
– SH 2/S-H 18-5
– SH 2/ST 18-4
– SH 2/U 18-6
– SH 2/U-H 18-7
Switch unit 13-53
Swivel bearing 4-6
Swivel fastening 180° 4-9
Synchronous shafts 13-51

▶ **T**
T-bolt 3-6
T-connector
– 45 Pneu 5-6
– Connection elements 3-45
– Profiles 2-66
T-nut 3-4
Technical data 19-1
– LF, layout, mounting 13-56

– Profiles 2-4
– Strut profiles 19-2
Threaded sleeve 6-7
Tool holder 14-8
Tool shelf 14-8
Tools 14-1
Torx® offset screwdriver 14-6
Trolley 2-62

▶ **U**
Universal plate 7-11

▶ **V**
Variofix block 7-6
Variofix block S 7-7
Variofix remover 14-7

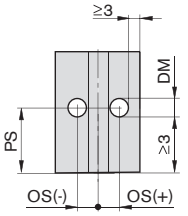
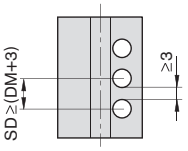
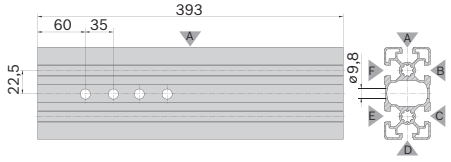
▶ **W**
Washer 6-12

Notes

Easy configuration in the eShop or with MT*pro*
www.boschrexroth.com/shop

Drilling DI, drilling sequence DIS

Material number/length/[slot designation=DI; PS=...; *OS=...;* **DM=...;** *HT=...***];** *[...]*
Material number/length/[slot designation=DIS; PS=...; *OS=...;* **DM=...;** *HT=...;* **SN=...; SD=...];** *[...]*

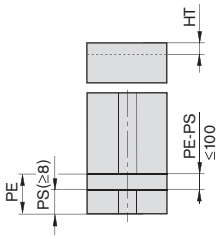
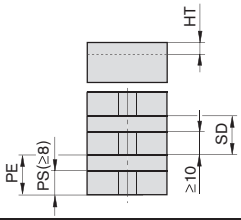
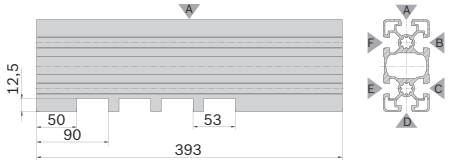
End finishing	Parameter		Order example for profile 45x90L
Drilling **DI** 	**PS**	Center point of bore PS_{min} = DM/2 + 3 mm; PS_{max} = L - (DM/2 + 3 mm)	 **3 842 993 662**/393/ [B=DI; PS=60; OS=22.5; DM=9.8]
	OS	Offset starting point (optional) Select the OS so that the bore does not cut through any slot edges.	
	DM	Bore diameter DM; see table.	
	HT	Depth of bore (optional) Through bores provided if no information indicated. See table for HT_{max}	
Drilling sequence **DIS** 	**PS,** *OS,* **DM, HT**	As with drilling DI	 **3 842 993 662**/393/ [B=DIS; PS=60; OS=22.5; DM=9.8; SN=4; SD=35]
	SN	Number of finishes SN_{max} = INT ((L - 3 - PS - DM/2)/SD) + 1	
	SD	Distance between adjacent finishes SD_{min} = DM + 3	

Permissible bore diameters, permissible bore depths (in mm)								
DM	5.8	6.4	7.8	8.0	8.4	9.8	11.0	17.0
HT_{max}	40.0	45.0	45.0	45.0	45.0	50.0	60.0	75.0

ATTENTION: If HT_{max} is not sufficient to drill through the profile, you must order two opposite bores!

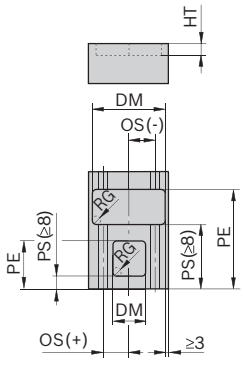
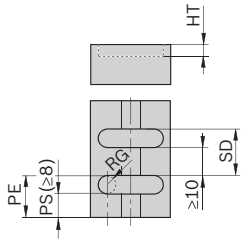
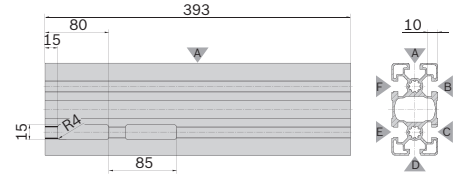
Cross milling MT, cross milling sequence MTS

Material number/length/[slot designation=MT; PS=...; HT=...; PE=...]; *[...]*
Material number/length/[slot designation=MTS; PS=...; HT=...; PE=...; SN=...; SD=...]; *[...]*

End finishing	Parameter		Order example for profile 45x90L
Cross milling **MT** 	**PS**	Starting point of milling PS_{min} = 8 mm; PS_{min} = 60 mm on the bottom of the profile	 **3 842 993 662**/393/ [D=MT; PS=50; HT=12.5; PE=90]
	HT	Depth of milling HT_{max} = 5.5 mm (slot 6 mm) HT_{max} = 9.0 mm (slot 8 mm) HT_{max} = 12.5 mm (slot 10 mm)	
	PE	Ending point of milling PE_{max} = L - 8 mm; 8 mm ≤ PE - PS ≤ 100 mm	
Cross milling sequence **MTS** 	**PS, HT, PE**	As with cross milling MT	 **3 842 993 662**/393/ [D=MTS; PS=50; HT=12,5; PE=90; SN=4; SD=53]
	SN	Number of finishes SN_{max} = INT((L - 8 - PE)/SD) +1	
	SD	Distance between adjacent finishes SD_{min} = (PE - PS) + 10	

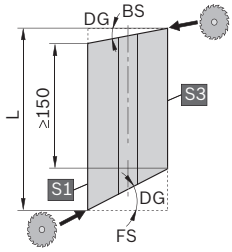
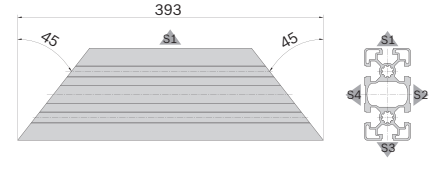
Lengthwise milling MI, lengthwise milling sequence MIS

Material number/length/[slot designation=MI; PS=...; *OS=...;* **DM=...; HT=...; PE=...; RG=...]***; [...]*
Material number/length/[slot designation=MIS; PS=...; *OS=...;* **DM=...; HT=...; PE=...; RG=...; SN=...; SD=...]***; [...]*

End finishing	Parameter		Order example for profile 45x90L
Lengthwise milling **MI** 	**PS**	Starting point of milling PS_{min} = 8 mm PS_{min} = 60 mm on the bottom of the profile (see order tables for orientation)	
	OS	Offset starting point (optional)	
	DM	Milling width DM_{min} = 8 mm; DM_{max} = profile width/height - 6 mm At least 3 mm of profile must remain on both sides	**3 842 993 662**/393/ [B=MI; PS=15; OS=22.5; DM=55; HT=10; PE=80; RG=5]
	HT	Depth of milling HT_{max} = 5.5 mm (slot 6 mm) HT_{max} = 9.0 mm (slot 8 mm) HT_{max} = 12.5 mm (slot 10 mm)	
	PE	Ending point of milling PE_{max} = L - 8 mm 8 mm ≤ PE - PS ≤ 100 mm	
	RG	Radius of milling geometry RG = 3 mm; 4 mm; 5 mm; 8 mm	
Lengthwise milling sequence **MIS** 	**PS,** *OS,* **DM, HT, PE, RG**	As with lengthwise milling MI	
	SN	Number of finishes SN_{max} = INT (L - 8 - PE/SD) + 1	
	SD	Distance between adjacent finishes SD_{min} = (PE - PS) + 10	**3 842 993 662**/393/ [C=MIS; PS=15; DM=15; HT=10; PE=80; RG=4; SN=2; SD=85]

Miter cuts

Material number/length/[FS=side; DG=miter bracket]*; [BS=side; DG=miter bracket]*

End finishing	Parameter		Order example for profile 45x90L
Miter cut 	**FS**	Front side S1, S3 – profile side on which the miter cut begins	
	BS	Back side S1, S3 – profile side on which the miter cut begins	
	DG	Miter bracket DG > 0 The bracket is always specified as a positive value. Note the maximum permissible miter bracket (see order tables)	**3 842 993 662**/393/ [FS=S3; DG=45]; [BS=S3; DG=45]

Easy configuration in the eShop or with MT*pro*
www.boschrexroth.com/shop

Standard profile finishes

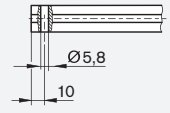
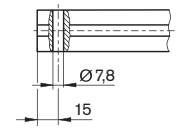
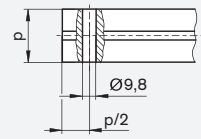
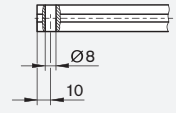
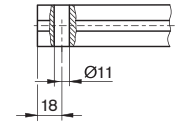
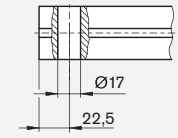
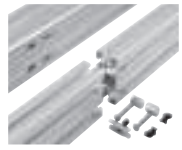
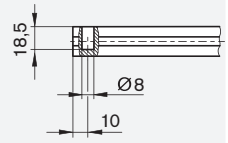
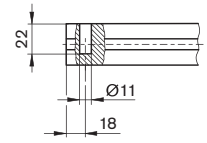
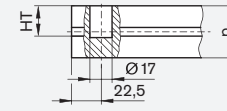
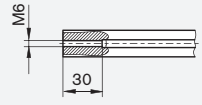
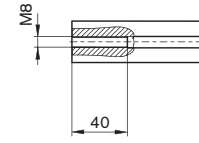
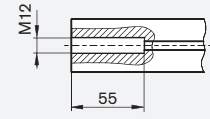
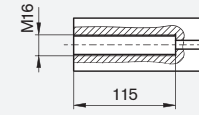
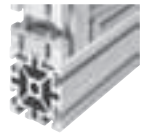
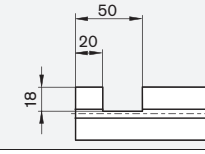
Order syntax for through holes, blind hole drilling, standard milling

Material number/length/slot designation = finishing at profile start/finishing at profile end; ...

Order syntax for threads

Material number/length/Z = Mx at profile start/Mx at profile end

Standard profile finishes

		Slot 6 mm 	Slot 8 mm 	Slot 10 mm 
Through hole for corner connections with central bolts		**D5.8** 	**D7.8** 	**D9.8** 
Through hole for bolt connectors and quick connectors		**D8** 	**D11** 	**D17** 
Blind hole drilling for longitudinal end connectors and quick connectors in closed profiles		**DB8** 	**DB11** 	**DB17**  **p** 40 45 50 60 **HT** 31 34 36 41
Threads in all core holes for accessories		**M6** 	**M8** 	**M12**  **M16** 
Standard milling for cross connectors				**F1** 

Minimum profile lengths (mm) for standard profile finishes on one or both sides

6	–	M6	D5.8	D8/ DB8
–	50	50	50	50
M6	50	70	50	70
D5.8	50	50	50	50
D8/ DB8	50	50	50	50

8	–	M8	D7.8	D11/ DB11
–	50	50	50	50
M8	50	80	62	70
D7.8	50	62	60	50
D11/ DB11	50	70	50	60

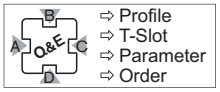
10	–	M12	M16	D9.8	D17/ DB17	F1
–	50	60	120	50	60	60
M12	60	110	180	90	60	110
M16	120	180	240	150	170	170
D9.8	50	90	150	80	70	90
D17/ DB17	60	90	150	70	80	90
F1	60	110	170	90	90	80

Note: In the case of overlapping with the values from the order table, the larger value applies.

Quick & Easy profile finishes

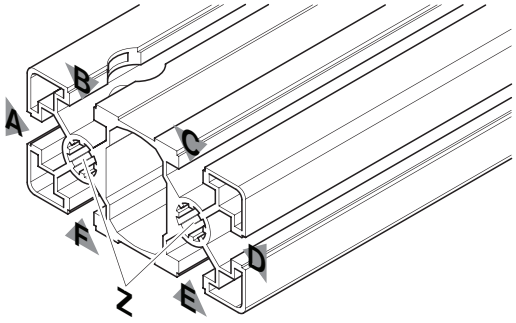
Logical structure of the order key

Material number/length/ [slot designation = finishing; parameter set]



Example: **Profile 45x90L with through hole D17 in slot B**

3 842 993 662	/ 393 /	B = D17/-
Material number	Length	Standard profile finishes through hole D17 in slot B



Standard profile finishes

▶ Through hole	D
▶ Blind hole drilling	DB
▶ Thread cutting	M
▶ Standard milling	F1

Individual profile finishes

▶ Drilling	DI
▶ Drilling sequence	DIS
▶ Cross milling	MT
▶ Cross milling sequence	MTS
▶ Lengthwise milling	MI
▶ Lengthwise milling sequence	MIS
▶ Miter cuts	S1/S3



You can configure your profile quickly and easily in the Rexroth eShop or with the profile configurator in MT*pro*.









The Drive & Control Company

Rexroth
Bosch Group

Bosch Rexroth AG
Postfach 30 02 07
70442 Stuttgart, Germany
Tel. +49 711 811-30698
Fax +49 711 811-30364
www.boschrexroth.com

Find your local contact person here:
www.boschrexroth.com/contact

3 842 540 392 (2013-02)
© Bosch Rexroth AG 2013
Subject to changes!

The data specified only serve to describe the product.
Due to continuous product advancements, no statements concerning a certain condition or suitability for a certain application can be derived from our information. The information given does not release the user from the obligation of own judgment and verification.
It must be remembered that our products are subject to a natural process of wear and aging.