

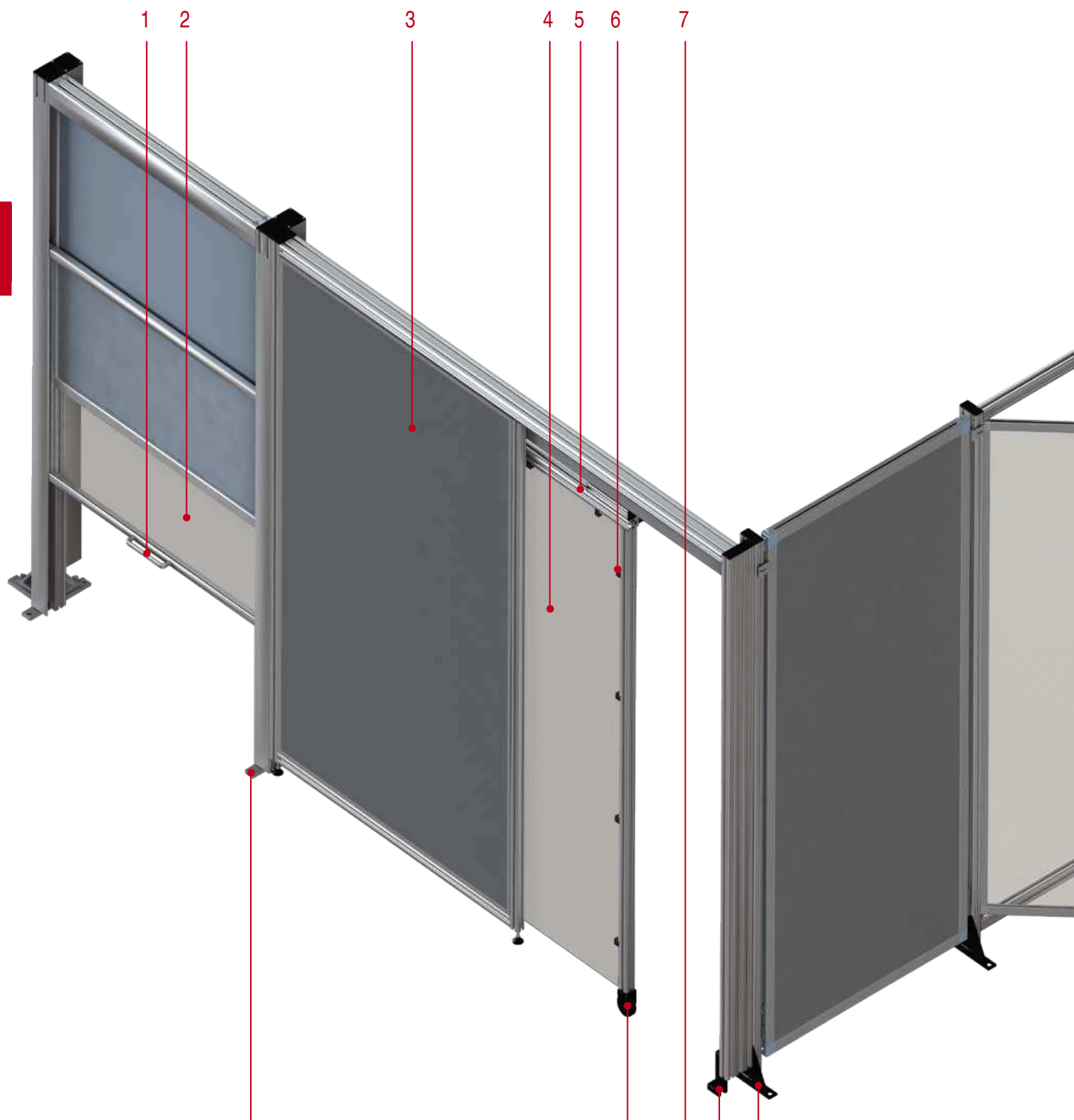


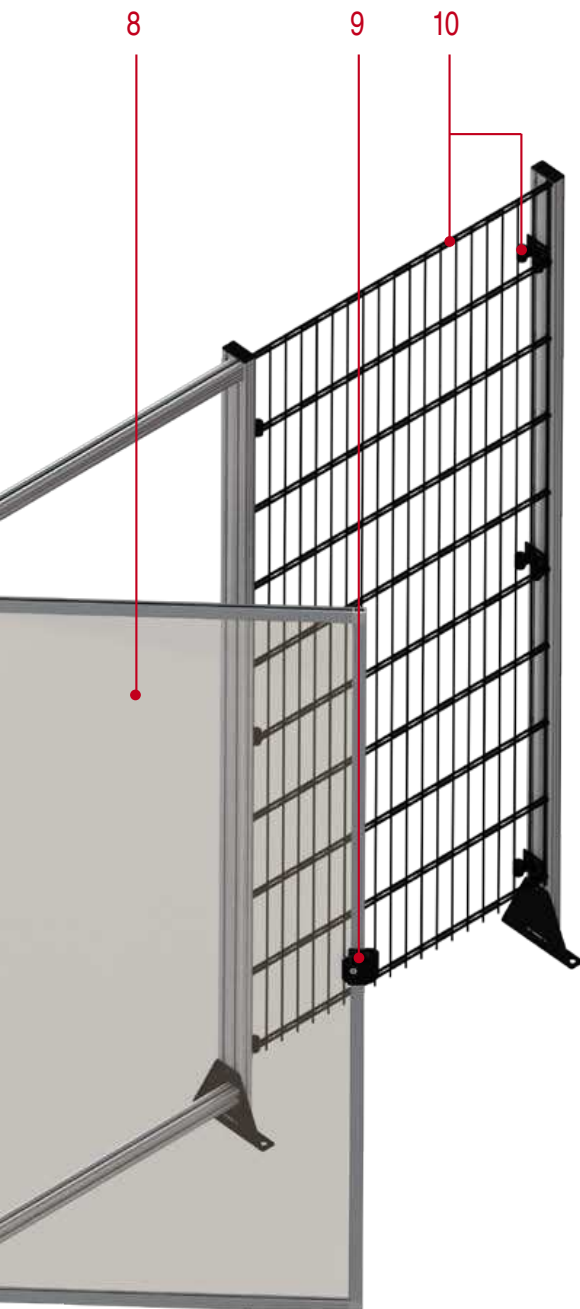
ENCLOSURES, GUARDS AND PARTITIONS

6

Clamp Profiles
Hangers
Dual-Rod Mesh Hanger
Lifting-Door System
Door Security

Application example – system solutions for enclosures and guards
Components for building enclosures and guards





1 Handles and grips

- Safe opening and closing suited to the working environment
- Handles in any sizes thanks to flexible profiles

263

Section 8

2 Lifting doors

- Complete solution in widths of up to 2 m
- Manual and automatic operation

215

Section 6

3 Panel elements

- Made from metal, plastic, composite material
- Numerous special applications such as noise reduction, impact protection and access prevention

295

Section 10

4 Sliding doors

- On easy-running castors, up to 6000 mm wide
- Also available in customised dimensions as a corner entrance or folding door

242

Section 7

5 Clamp Profiles

- Hold panel elements securely in the profile without the need for machining
- Models designed specifically for various applications

197

Section 6

6 Panel fasteners

- Wide range of fixings to suit different panel elements
- Safety functions compliant with Machinery Directive

163

Section 5

7 Floor elements

- Knuckle Feet, castors and floor fasteners to size
- A secure hold for all applications

317

Section 11

8 Swing doors

- With profiles and hinges from item
- Can be planned to suit individual needs
- Door panel can be chosen to suit requirements

225

Section 7

9 Locks

- Mechanisms for controlling access
- Various lock systems available

277

Section 9

10 Safety Hangers

- Hangers and fasteners from item ensure rapid and safe construction
- Easily reused and adapted to suit special applications
- Compliant with the EC Machinery Directive

209

Section 6

Key:  See page

0 Products in this section

0 Products in other sections

Enclosures, guards and partitions

Products in this section

6



Clamp Profile 8 32x18

- Slim frame profile
- For building guards, enclosures and sliding doors

 198


Clamp Profiles E

- For building frame elements
- Rapid to fit and secured against movement

 202


Clamp Profiles light

- For building gap-free protective enclosures

 203


Clamp Profiles

- For building particularly stable frame elements
- Suitable for large-area guards and enclosures

 204


Clamp-Profile Fasteners E

- For suspending panels within frame structures
- Ensures easy access thanks to rapid installation and removal

 206


Clamp-Profile Cross Connector

- For inside corners, cut-outs and openings in panels
- Connect up to four Clamp Profiles

 207


Profiles 8 F14 light

- Groove in special width accommodates panel elements up to 14 mm thick
- For particularly robust enclosures and guards

 208


Safety Hanger 8/8 and 8/6

- Intelligent hanging system allows one-man assembly
- Tamper-proof in line with EC Machinery Directive

 209


Hanger 6-8

- The slim Hanger for frame elements
- Combine Line 6 and 8 Profiles

 211


Hanger 8

- Robust connection between frame elements and Stand Profiles 8
- Secured against removal by screw attachment

 212


Dual-Rod Mesh Hanger

- Stable hold for Dual-Rod Mesh panels
- Fasten rod meshes at any angle

 213

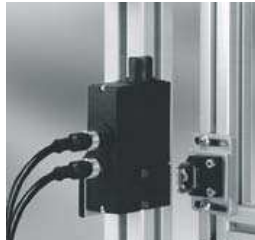

Lifting-Door System

- Complete solution for automatic or manual operation
- Easy-running door, balanced by counterweights

 215


Lifting-Door Guide Set

- Guide runs along the Line 8 groove
- Can also be connected to a drive

 218


Security Limit Switch/Lock

- Compact, secure latching function, detects when doors have been opened
- For swing, lifting and sliding doors

 219



Special profiles for fastening panel elements

- Exceptionally secure hold for panel elements
- Design guard panels to suit specific requirements
- Fully compatible with Hangers and Hinges

6

Special Clamp Profiles are available for the construction of inherently stable enclosures and guards. They provide an exceptionally secure hold for panel elements including Acrylic Glass, Steel Mesh and Sound-Insulating Material. As a result, it couldn't be easier to build partitions, guards and enclosures to precise specifications. Alternatively, when assembling lightweight panels or table tops, fastenings can be used that sit in or on the groove of stand profiles.

Clamp Profiles can also be used to erect flexible guards, with individual panels fastened to load-carrying stands made from standard profiles. The range of Hangers from item can then be used to install the panels in the guard as fixed, removable or mobile (e.g. door) elements.

This catalogue contains a wide range of panel elements and the ideal Clamp Profiles for each type of material.

Frame Profile	Panel Element							
	Acrylic Glass / Polycarbonate	Sheet Metal Al	Compound Material	Plastic	Corrug. Mesh Al	Corrug. Mesh St	Steel Mesh	Perforated Sheet
Clamp Profile	+	+	+	+	0	+	+	+
Clamp Profile E	+	+	+	+	+	0	+	+
Clamp Profile 8 32x18	+	+	+	+	-	-	-	0
Profiles (Line 8)	0	0	0	0	-	-	-	0

+ well suited

0 assembly possible

- not recommended

The strength of a protective enclosure is also determined by the strength of the connection between panel element and profile. Thanks to their deep slot, the special Clamp Profiles offer clear advantages over standard profiles, particularly with regard to panel such as Corrugated Mesh or thin Sheet Material, which are not inherently stable.

Large, free-standing machine guards in production plants and room dividers in offices, warehouses or sales areas also benefit from the use of special profiles. Clamping the panel element in the profile frame improves rigidity while keeping the material weight low. This makes it easier to build,

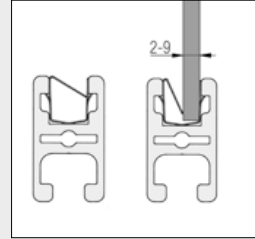
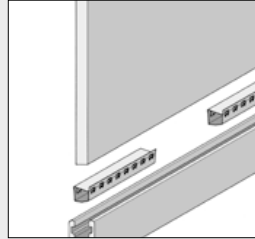
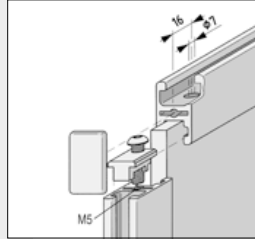
reconfigure and disassemble the walls. Alternatively, guards and enclosures can also be erected using inherently stable panel elements such as Dual-Rod Meshes, which can be mounted directly on stands without the need for special Clamp Profiles. Special Hangers are available for this application, too.

The Hangers item supplies for frame elements balance out assembly tolerances and make it easy to remove panels as well as secure them firmly in place.



Clamp Profile 8 32x18

- Holds panel elements with the appropriate Clamping Spring
- For building lightweight guards, enclosures and sliding doors

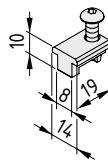
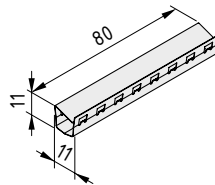
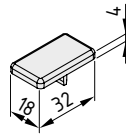
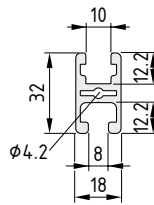


Clamp-Profile Fastening Set 8 32x18 ensures a correctly positioned corner connection for the profiles.

The number of Clamping Springs required depends on the load, the inherent stability and the size of the panel element.

10 mm thick panel elements can be fitted into the groove without using Clamping Springs.

Instead of Clamping Spring 8, a Lip Seal 8 can also be used for securing inherently stable panel elements.



Clamp Profile 8 32x18



Al, anodized

A [cm ²]	m [kg/m]	I _x [cm ⁴]	I _y [cm ⁴]	W _x [cm ³]	W _y [cm ³]
2.49	0.67	1.88	1.10	1.16	1.23
natural, cut-off max. 6000 mm					0.0.373.67
natural, 1 pce., length 6000 mm					0.0.631.05
natural, 1 pce., length 3000 mm					0.0.452.24

Cap 8 32x18



PA-GF

$$m = 2.2 \text{ g}$$

black, 1 pce.	0.0.388.87
grey similar to RAL 7042, 1 pce.	0.0.627.23

Clamping Spring 8



St

$$m = 5.0 \text{ g}$$

stainless, 1 pce.	0.0406.21
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Clamp-Profile Fastening Set 8 32x18



Fastener, die-cast zinc, bright zinc-plated

Button-Head Screw ISO 7380-M5x20, St, bright zinc-plated

$$M_{\text{bright zinc-plated}} = 4.5 \text{ Nm} \quad m = 11.0 \text{ g}$$

1 set	0.0.404.09
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Corner-Fastening Set Clamp-Profile 8 32x18

- Simple assembly of a frame using Clamp Profiles 8
- Additional components can be added to produce hinges or castors for sliding doors



Corner-Fastening Set Clamp-Profile 8 32x18 is used for stable profile connections. The rigid screw fastening to the end faces of the profiles being connected produces a frame that is ideal for use within lightweight enclosures and for door frames.

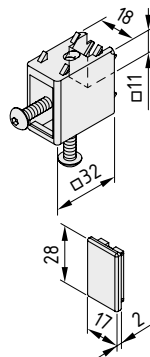
Corner-Fastening Set Clamp-Profile 8 32x18 contains all components required for a profile connection. An M5 thread must be tapped into the core bore of each Clamp Profile 8 32x18. The Corner-Fastening Sets are multifunctional. They can be used in a variety of ways when used with special add-on elements:

- Roller Set 32x18 can be fitted directly into the corner fastener. This turns the frame into a smooth-running sliding door element that can be employed e.g. in the Sliding-Door Guide Profile 8 40x10.

- Hinge Sets 32x18 come with an insert for the corner fastener which forms a door hinge in conjunction with a hinge bearing in the frame of the surrounding construction. This provides an easy means of constructing a stylish, lightweight swing door with a particularly low door gap and without needing to fit additional hinges.

The maximum permissible weight of a door is 10 kg.

6



Corner-Fastening Set Clamp-Profile 8 32x18



Die-cast zinc, white aluminium similar to RAL 9006
2 Button-Head Screws ISO 7380-M5x16, St, bright zinc-plated
m = 54.5 g

1 set

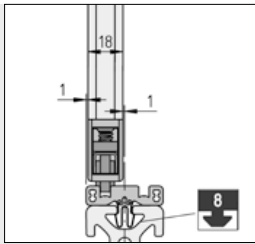
0.0.494.73

Cap for Corner-Fastener 8 32x18

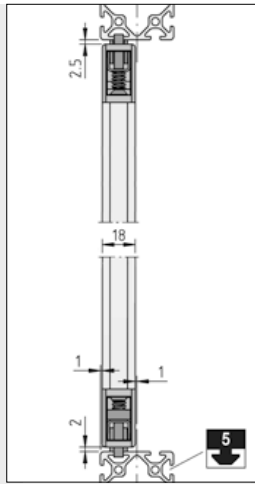


PP
m = 1.3 g
grey similar to RAL 7042, 1 pce.

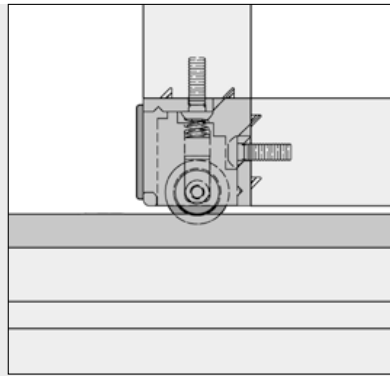
0.0.494.71



Sliding-Door Guide Profile 8 40x10 is fitted with Clip 8 St at the top and bottom of the surrounding profile frame. It forms the guide for two door leaves of Clamp Profile 8 32x18.



The sliding doors can also be run directly in the grooves of a Line 5 profile. This produces a particularly compact frame construction.

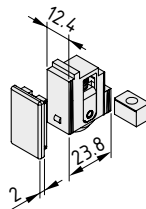


Spring-loaded Roller Set 32x18 is fitted into the corner fasteners of the previously constructed clamp profile frames. A Roller Set must be installed in each fastener so as to guide the sliding door leaf.

A limit stop can be installed to prevent the roller insert from springing. The corner fasteners at the bottom of a sliding door frame are always installed with rigid rollers. Spring-loaded rollers in the corner fasteners at the top enable the door leaves to be fitted into a profile frame which has already been built.

If required, all four roller inserts may be blocked by limit stop inserts and the outer profile frame finished after the sliding door leaves have been fitted. This effectively prevents the doors from being removed without dismantling the frame.

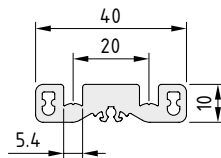
After the rollers have been fitted, a plastic end cap closes the fastener at the side and serves as a door stop in the terminal positions.



Roller for Corner-Fastener 8 32x18

Roller insert
Compression spring
Limit stop
Cap, PP grey
Notes on Use and Installation
m = 10.5 g

1 set 0.0.494.74

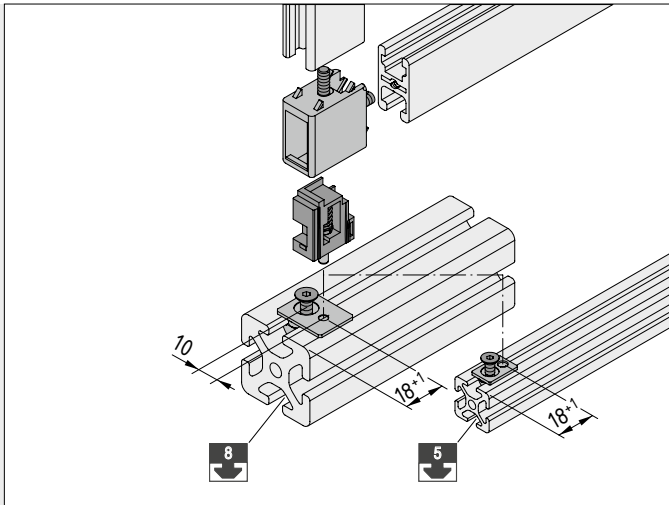


Sliding-Door Guide Profile 8 40x10

Al, anodized
A [cm²] m [kg/m]
2.48 0.67

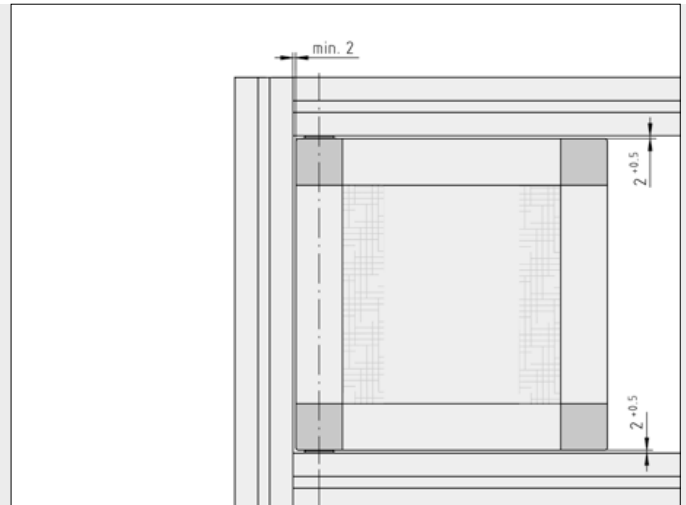
natural, cut-off max. 3000 mm 0.0.495.13

natural, 1 pce., length 3000 mm 0.0.495.12

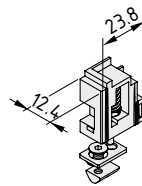


The hinge inserts are also fitted into the corner fasteners after the clamp profile frame has been closed.

A hinge bearing is attached to both the upper and the lower frame profile and functions as a rotary bearing for a door. During installation, the spring-loaded Hinge Pin engages in the bearing plate, whose position in the groove can be adjusted when the swing door is open. This provides an effective means of preventing a closed door from being dismantled.



The Hinge Sets for installing swing doors in frame constructions of Line 5 or 8 contain all the parts required for one hinge.



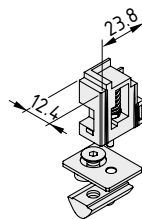
Hinge 5 for Corner-Fastener 8 32x18



Hinge insert
Bearing plate 5
T-Slot Nut 5 St M4, bright zinc-plated
Countersunk Screw DIN 7991-M4x6, St, bright zinc-plated
Notes on Use and Installation
m = 11.5 g

1 set

0.0.495.33



Hinge 8 for Corner-Fastener 8 32x18



Hinge insert
Bearing plate 8
T-Slot Nut V 8 St M5, bright zinc-plated
Countersunk Screw DIN 7991-M5x12, St, bright zinc-plated
Notes on Use and Installation
m = 23.0 g

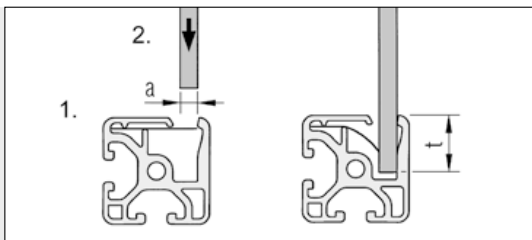
1 set

0.0.494.76



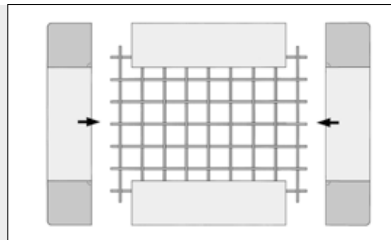
Clamp Profiles E

- For building frame elements
- Flexible steel strip holds even Corrugated Mesh Al in place
- Rapid to fit and secured against movement



Installation sequence:

1. Insert the Clamp-Profile Strip into the spring cavity in the Clamp Profile.
2. Press in the panel element.

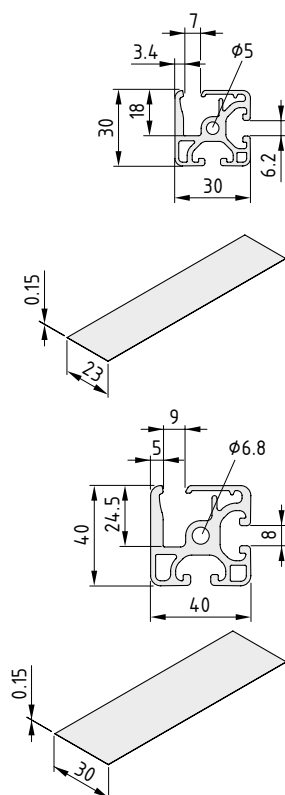


Producing frames:

1. Cut-off of panel element = inside frame dimension + 2 x insertion depth (t).
2. Fit the Clamp-Profile Fastener loosely onto the upright frame profiles.
3. Place the horizontal frame profiles centrally onto the panel element so as to ensure initial gentle clamping by the steel strip. The panel element must not yet be pressed all the way into the groove.
4. Assemble the frame and tighten the bolts. The panel element will be pressed into the groove by varying amounts (depending on the tolerance position) when the bolts are tightened.

Clamp Profile Fasteners E

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Clamp Profile 6 30x30 E

Al, anodized

A [cm ²]	m [kg/m]	I _x [cm ⁴]	I _y [cm ⁴]	W _x [cm ³]	W _y [cm ³]
3.58	0.97	2.77	3.24	1.81	2.14
natural, cut-off max. 6000 mm					0.0.439.42
natural, 1 pce., length 6000 mm					0.0.451.49

Clamp-Profile Strip 6 23x0.15 E

St

m = 27 g/m

stainless, 1 roll length 20 m	0.0.441.52
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Clamp Profile 8 40x40 E

Al, anodized

A [cm ²]	m [kg/m]	I _x [cm ⁴]	I _y [cm ⁴]	W _x [cm ³]	W _y [cm ³]
6.50	1.76	8.79	10.67	4.29	5.25
natural, cut-off max. 6000 mm					0.0.436.92
natural, 1 pce., length 6000 mm					0.0.452.21

Clamp-Profile Strip 8 30x0.15 E

St

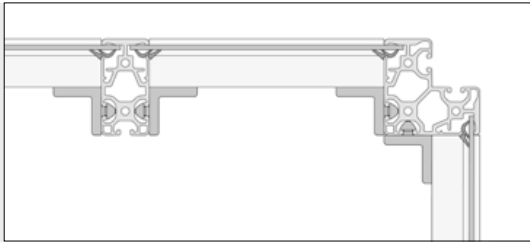
m = 35 g/m

stainless, 1 roll length 20 m	0.0.440.48
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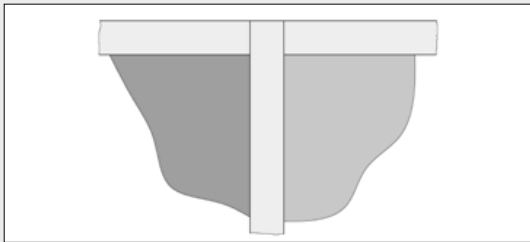
Clamp Profiles light

- The cost-effective solution for building gap-free protective enclosures
- Stand profile and clamp profile in one

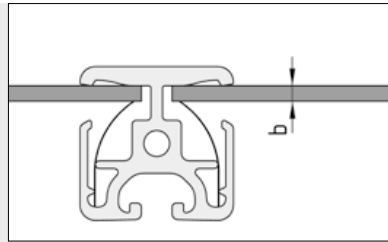


The Clamp Profiles light are connected using Angle Bracket V 8 40 Zn.

Angle Bracket V 8
40 Zn 

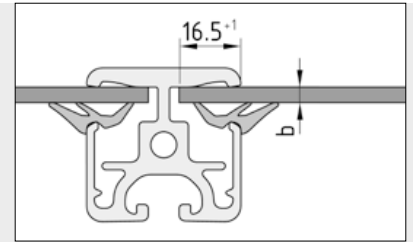


Using a Clamp Profile as a stand allows you to construct protective enclosures without gaps.



A special clamping effect is achieved using Clamp-Profile Strip 8 30x0.15 E (0.0.440.48). In such cases, the Clamp Profiles first have to be pushed onto the panel element. The frame is then connected together using Angle Brackets V 8 40 Zn.

b = max. 6 mm

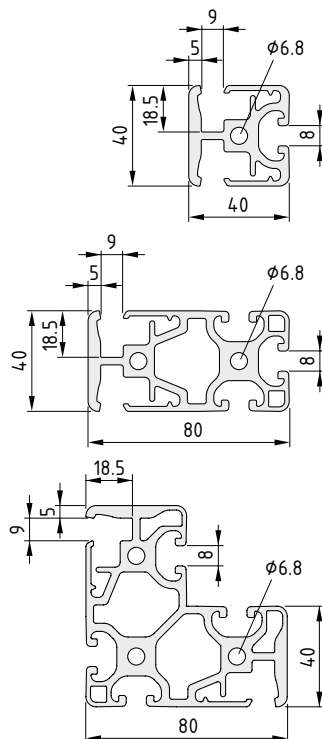


Lip Seals 8 ensure inherently stable panel elements are secured firmly without rattling.

b = max. 6 mm

Lip Seal 8 2-4mm 

6



Clamp Profile 8 40x40-180° light

Al, anodized

A [cm ²]	m [kg/m]	I _x [cm ⁴]	I _y [cm ⁴]	W _x [cm ³]	W _y [cm ³]
6.51	1.77	8.57	11.20	4.29	5.51
natural, cut-off max. 6000 mm					0.0.483.36
natural, 1 pce., length 6000 mm					0.0.454.45

Clamp Profile 8 80x40-180° light

Al, anodized

A [cm ²]	m [kg/m]	I _x [cm ⁴]	I _y [cm ⁴]	W _x [cm ³]	W _y [cm ³]
11.77	3.18	17.37	70.29	8.69	17.41
natural, cut-off max. 4800 mm					0.0.480.44
natural, 1 pce., length 4800 mm					0.0.454.38

Clamp Profile 8 W80x80x40 light

Al, anodized

A [cm ²]	m [kg/m]	I _x [cm ⁴]	I _y [cm ⁴]	W _x [cm ³]	W _y [cm ³]
17.51	4.73	97.40	97.40	21.18	21.18
natural, cut-off max. 4800 mm					0.0.483.57
natural, 1 pce., length 4800 mm					0.0.483.56



Clamp Profiles

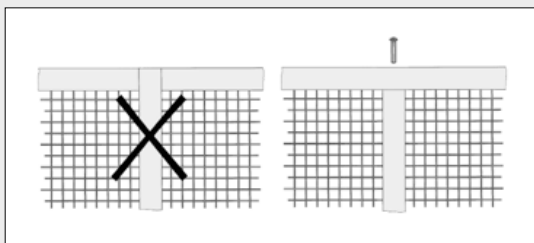
- For building particularly stable frame elements
- Suitable for large-area guards and enclosures



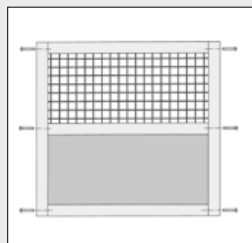
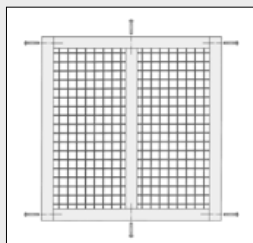
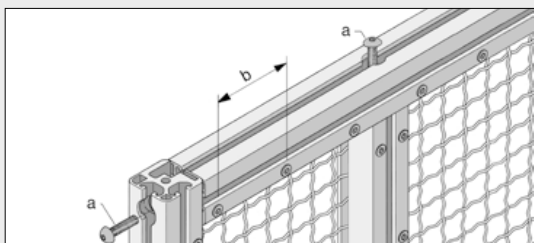
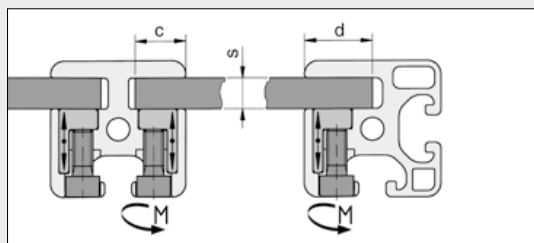
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Clamp Profiles can be connected together to form frames using Clamp-Profile Fasteners E or by screwing the Clamp Profiles directly to each other.



Where the panels are to be divided by a central strut (Clamp Profile 180°), this should always be tapped at the ends and bolted between the outer frame profiles. The Profile Edging (i.e. clamping strip) will need to be interrupted accordingly.



When designing a frame, it is important to ensure that horizontal Clamp Profiles are always connected via their end faces. An appropriate bore should be drilled through the vertical profiles.

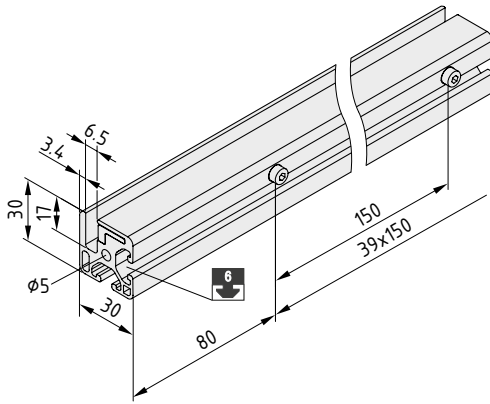
Clamp Profile 6		Clamp Profile 8	
30x30	30x30-180°	40x40	40x40-180°
c	-	-	15 ⁺¹ mm
d	15 ⁺¹ mm	20 ⁺² mm	-
M _{max.} 2 Nm		8 Nm	
a Button-Head Screw ISO 7380 M6x30		Button-Head Screw ISO 7380 M8x40	
b	150 mm	200 mm	
s	2-6 mm	2-8.5 mm	

**Clamp Profile 6 30x30**

Al, anodized

Cap Screws DIN 912-M4x12, St, bright zinc-plated

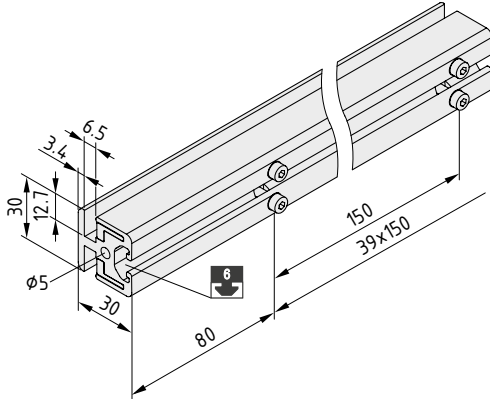
A [cm ²]	m [kg/m]	I _x [cm ⁴]	I _y [cm ⁴]	W _x [cm ³]	W _y [cm ³]
4.14	1.27	3.20	3.54	2.04	2.34
natural, cut-off max. 6000 mm					0.0.431.11
natural, 1 pce., length 6000 mm					0.0.451.01

**Clamp Profile 6 30x30-180°**

Al, anodized

Cap Screws DIN 912-M4x12, St, bright zinc-plated

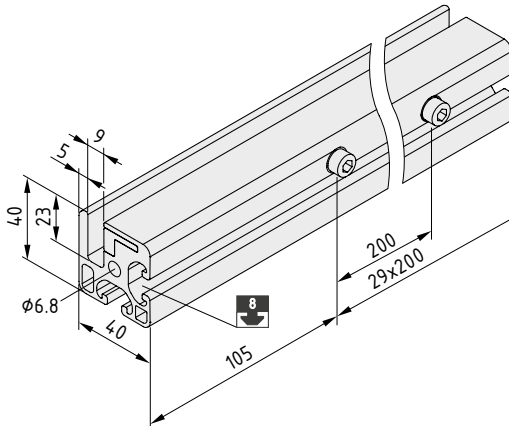
A [cm ²]	m [kg/m]	I _x [cm ⁴]	I _y [cm ⁴]	W _x [cm ³]	W _y [cm ³]
4.64	1.55	3.88	3.53	2.54	2.35
natural, cut-off max. 6000 mm					0.0.431.14
natural, 1 pce., length 6000 mm					0.0.451.02

**Clamp Profile 8 40x40**

Al, anodized

Cap Screws DIN 912-M6x16, St, bright zinc-plated

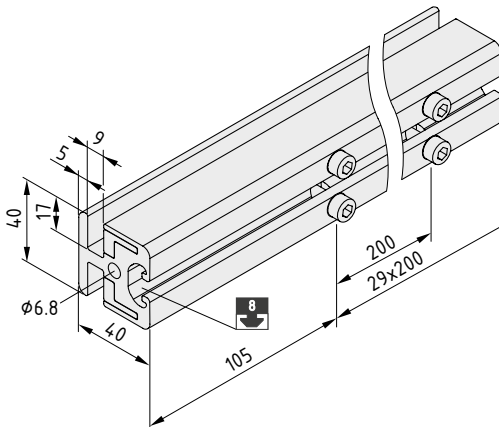
A [cm ²]	m [kg/m]	I _x [cm ⁴]	I _y [cm ⁴]	W _x [cm ³]	W _y [cm ³]
7.49	2.30	9.58	11.96	4.55	5.93
natural, cut-off max. 6000 mm					0.0.196.50
natural, 1 pce., length 6000 mm					0.0.452.25

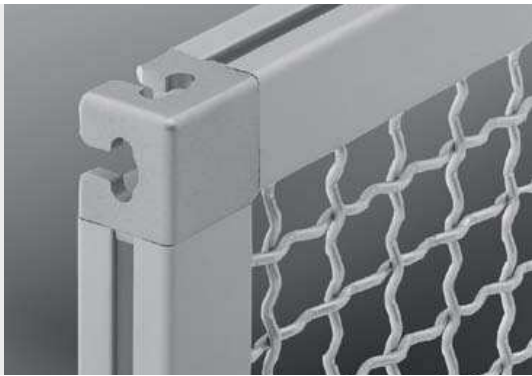
**Clamp Profile 8 40x40-180°**

Al, anodized

Cap Screws DIN 912-M6x16, St, bright zinc-plated

A [cm ²]	m [kg/m]	I _x [cm ⁴]	I _y [cm ⁴]	W _x [cm ³]	W _y [cm ³]
8.38	2.56	11.40	13.00	5.70	6.20
natural, cut-off max. 6000 mm					0.0.429.95
natural, 1 pce., length 6000 mm					0.0.452.26





Clamp-Profile Fastener E

- For suspending panels within frame structures
- Ensures easy access thanks to rapid installation and removal



6



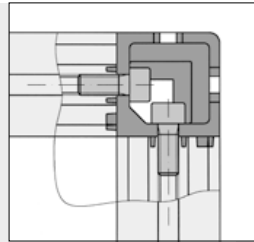
Suspended frame elements can also be locked if required by subsequently moving the lower Clamp-Profile Hanger.

Clamp-Profile
Hangers E

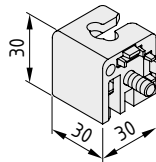
210



The Clamp-Profile Fastener can be combined with any desired Profiles 6 30x30 or 8 40x40 and also with the existing Clamp Profiles 6 30x30 or 8 40x40. The fact that the Clamp-Profile Fastener has a special cavity means that the panels to be fitted in the profile grooves do not need to be notched.



Connection of Clamp-Profiles E with Clamp-Profile Fasteners E.



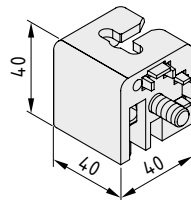
Clamp-Profile Fastener 6 30x30 E



Die-cast zinc, white aluminium similar to RAL 9006
2 Cap Screws DIN 912-M6x16, St, bright zinc-plated
m = 78.0 g

1 set

0.0.441.80



Clamp-Profile Fastener 8 40x40 E



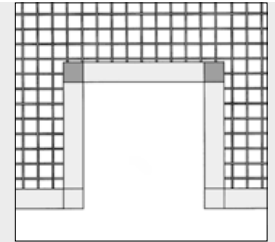
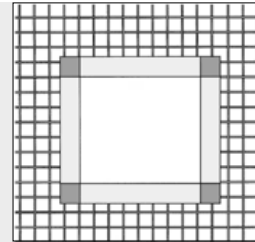
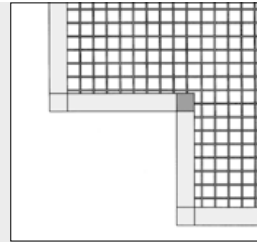
Die-cast zinc, white aluminium similar to RAL 9006
2 Cap Screws DIN 912-M8x20, St, bright zinc-plated
m = 187.0 g

1 set

0.0.444.76

Clamp-Profile Cross Connector

- Connect up to four Clamp Profiles
- Versatile design options
- For inside corners, cut-outs and openings in panels



6

Installation note:

The following screws are required for securing the Clamp-Profile Cross Connectors to the Clamp Profiles:

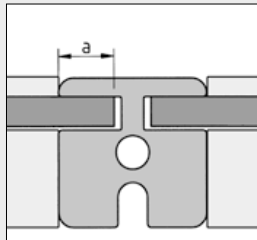
- Clamp Profile 6 30x30: Screw ISO 7380 M6x14
- Clamp Profile 8 40x40: Screw ISO 7380 M8x20

Inside corner with a Clamp-Profile Cross Connector and two Clamp Profile Connectors.

Central aperture with four Clamp Profile Cross Connectors.

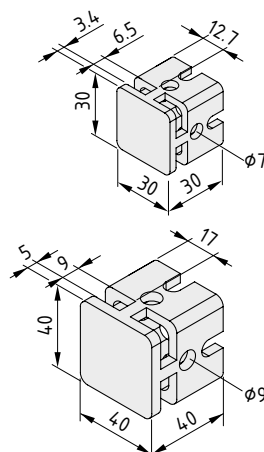
Cut-out with two Clamp Profile Cross Connectors and two Clamp Profile Connectors.

Button-Head Screws
ISO 7380



Clamp-Profile Cross Connector	6	8
a	12 ⁻¹ mm	15 ⁺¹ mm

When planning panel element cut-outs, the penetration depth (a) specified here must be taken into account irrespective of the penetration depth specified for the Clamp Profiles.



Clamp-Profile Cross Connector 6 30x30



St

m = 74.0 g

white aluminium, similar to RAL 9006, 1 pce.

0.0.459.09

Clamp-Profile Cross Connector 8 40x40

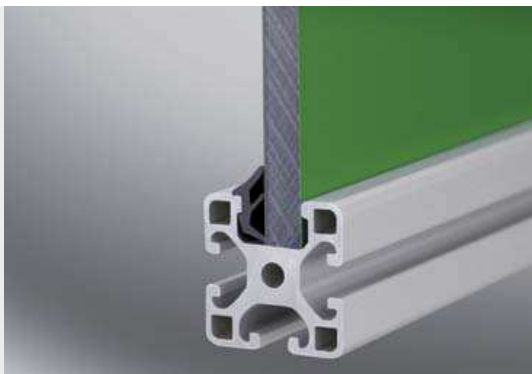


St

m = 168.0 g

white aluminium, similar to RAL 9006, 1 pce.

0.0.457.92

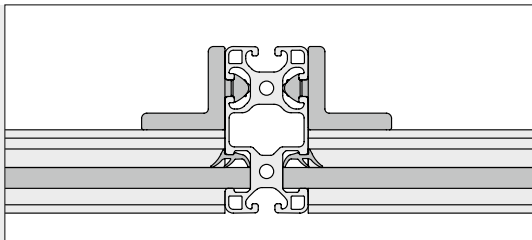


Profiles 8 F14 light

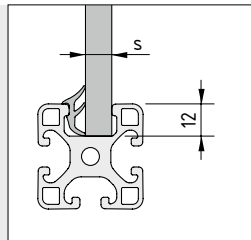
- Groove in special width
- Secure panel elements up to 14 mm thick
- For particularly robust enclosures and guards



6



Profiles 8 F14 can be fastened together without any profile machining by using Angle Brackets V 8 40 Zn (0.0.486.28). These Angle Brackets have an anti-torsion feature on one side which locates them in the correct position in the profile groove.



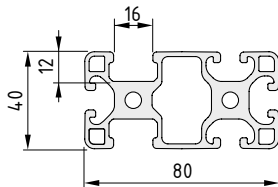
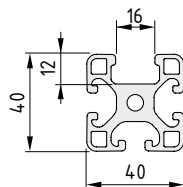
Depending on the thickness of the panel element used, it is advisable to use the following Lip Seals:

s = 10 - 12 mm => Lip Seal 8 2-4 mm

s = 12 - 14 mm => Lip Seal 8 4-6 mm

Lip Seals

167



Profile 8 40x40 F14 light



Al, anodized

A [cm ²]	m [kg/m]	I _x [cm ⁴]	I _y [cm ⁴]	W _x [cm ³]	W _y [cm ³]
6.39	1.73	8.25	9.24	2.85	4.62
natural, cut-off max. 6000 mm					0.0.617.97
natural, 1 pce., length 6000 mm					0.0.617.96

Profile 8 80x40 F14-180° light



Al, anodized

A [cm ²]	m [kg/m]	I _x [cm ⁴]	I _y [cm ⁴]	W _x [cm ³]	W _y [cm ³]
10.90	2.93	15.10	68.05	7.54	13.89
natural, cut-off max. 6000 mm					0.0.617.99
natural, 1 pce., length 6000 mm					0.0.617.98



Safety Hanger 8/8 and 8/6

Safety made convenient

- Practically unbreakable and tamper-evident design
- Intelligent hanging system allows one-man assembly
- Can be adjusted and evens out tolerances



It complies with the Machinery Directive and it is also extremely convenient to use – the new Safety Hanger for protective fence panels from item.

Its reinforced steel design is also break-proof in crash scenarios. And the tamper-proof pin hex button head screws surpass Machinery Directive requirements, since a special key (0.0.627.48) is needed to release the locking mechanism. As a

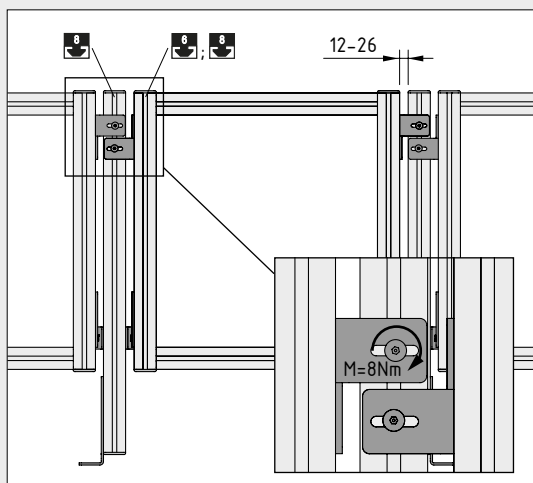
result, no unauthorised persons can access hazard areas.

Panels consisting of Profile 6 (Safety Hanger 8/6) or Profile 8 (Safety Hanger 8/8) frames can be fitted to Stand Profiles 8 by a single fitter working alone: slot in at the bottom, tilt into place at the top and then fasten with the security bolt. Safety really can be this simple.

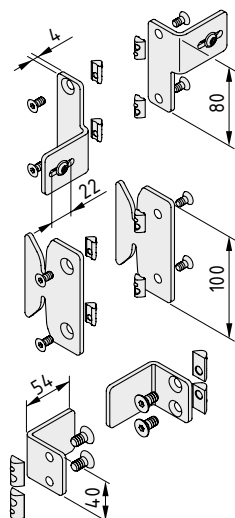
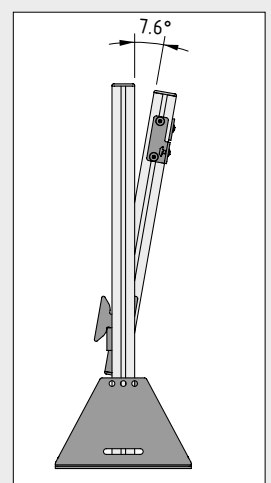
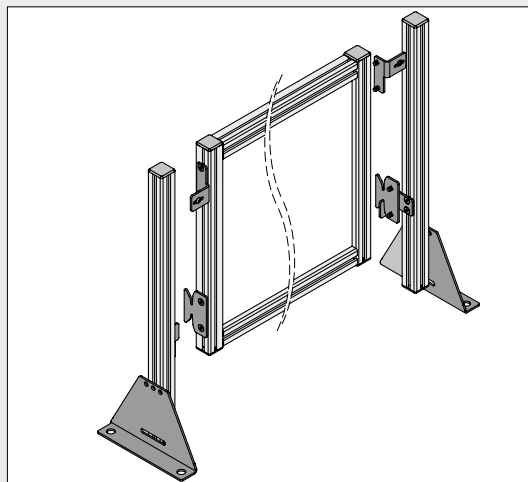
One Safety Hanger set is required for each profile frame.

Security L-Key Set 596

6



The captive security bolt: simply insert into the profile groove and tighten.



Safety Hanger 8/6

- 2 Safety Hangers with bolts St, bright zinc-plated
- 2 support hooks, St, bright zinc-plated
- 2 support angle brackets, St, bright zinc-plated
- 8 T-Slot Nuts 6 St M6
- 4 T-Slot Nuts V 8 St M8
- 8 security bolts M6x12, St. stainless
- 4 security bolts M8x16, St, stainless
- Notes on Use and Installation
- m = 912.0 g

1 set

0.0.627.78

Safety Hanger 8/8

- 2 Safety Hangers with bolts St, bright zinc-plated
- 2 support hooks, St, bright zinc-plated
- 2 support angle brackets, St, bright zinc-plated
- 12 T-Slot Nuts V 8 St M8
- 12 security bolts M8x16, St. stainless
- Notes on Use and Installation
- m = 992.0 g

1 set

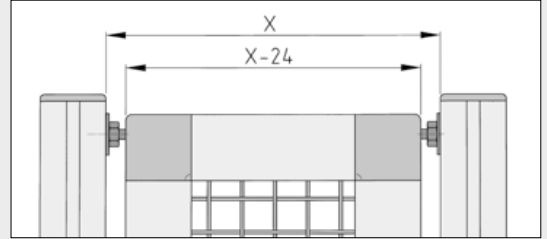
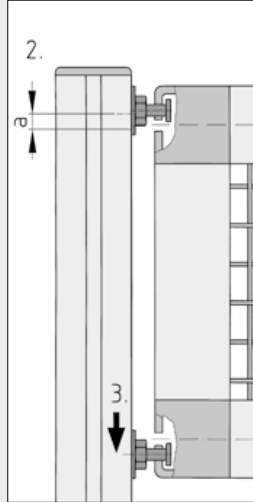
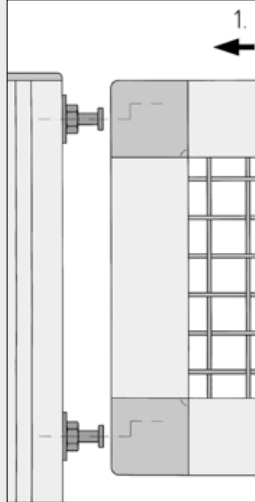
0.0.626.00

Clamp-Profile Hangers E

- For suspending frame elements assembled with Clamp-Profile Fasteners E



To match Clamp-Profile Hangers E, item supplies Clamp-Profile Fasteners E, which also hold together the frame elements. This means that a smaller gap (12 mm) can be achieved between the frame and the stands.

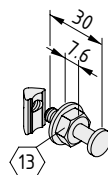


The clearance dimension between frame and Stand Profile is 12 mm. Dimensional tolerances of ± 3 mm can be accommodated by the Clamp-Profile Hanger E.

Clamp-Profile Hangers E	6	8
a	4.75 mm	8.25 mm

Installation sequence:

1. Hook the frame element into the existing construction.
2. Fix the height of the frame element using the upper hangers (a).
3. Move the lower Clamp-Profile Hangers to lock the frame element in position (if required).



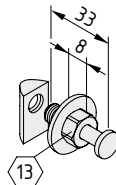
Clamp-Profile Hanger 6 E



a = 4.75 mm
4 bolts, St, black
4 washers DIN 9021-6.4, St, black
4 T-Slot Nuts 6 St M6, bright zinc-plated
m = 76.0 g

1 set

0.0.441.11



Clamp-Profile Hanger 8 E



a = 8.25 mm
4 bolts, St, black
4 washers DIN 9021-8.4, St, black
4 T-Slot Nuts 8 St M8, bright zinc-plated
m = 112.0 g

1 set

0.0.440.05



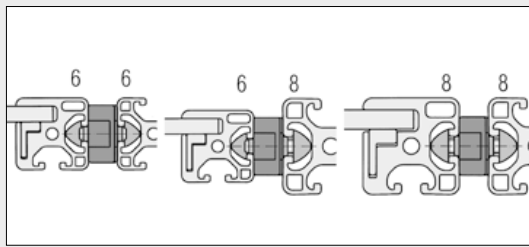
Hanger 6-8

- Connect lightweight frame elements and stand profiles
- Combine Line 6 and 8 Profiles



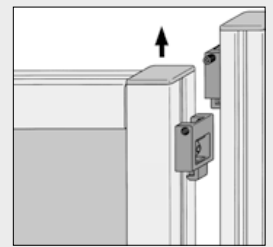
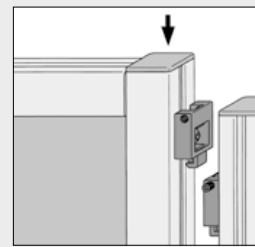
Compact hanger for especially rigid fastening of frame elements to Stand Profiles. Profiles from Lines 6 and 8 can be connected together as required.

If required, the Hangers can be screwed together front and rear using the supplied grub screw in order to prevent lifting.



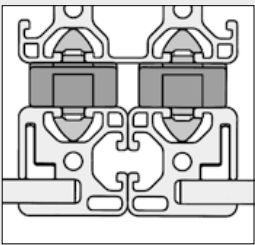
The two-sided anti-torsion blocks can be configured to suit various combinations of Profiles 6 and 8.

Fastening to Profile 6 using Button-Head Screw ISO 7380-M6x14 and T-Slot Nut 6 St M6.
Fastening to Profile 8 using Button-Head Screw ISO 7380-M6x16 and T-Slot Nut 8 St M6.

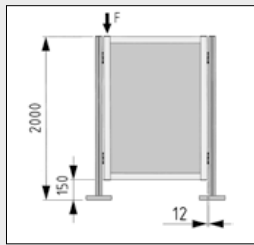


Hanger 6-8 allows two variations of frame assembly:

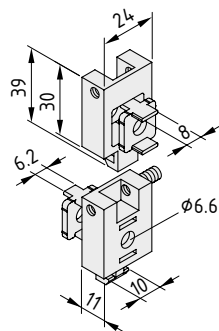
1. Very easy 1-man assembly: the frame element is lowered from above onto the hangers on the Stand Profiles, lugs on the hangers engaging to ensure stability. They are then secured by the grub screws provided.
2. The frame element is slid into the hanger on the Stand Profile from below and secured with the grub screw. Removal of the grub screws results in the frame element dropping down.



Attaching the Hanger from the front ensures that the frame and panel elements can be fitted without gaps.



Hanger 6-8 can be used to maintain very small gaps (12 mm) between the frame and the Stand Profile.
F = approx. 400 N



Hanger 6-8

2 hangers, die-cast zinc, black
2 anti-torsion blocks, die-cast zinc, black
Grub screw DIN 913-M5x10, black
m = 70.0 g

1 set

0.0.441.33

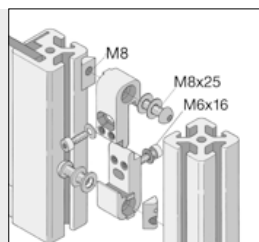


Hanger 8

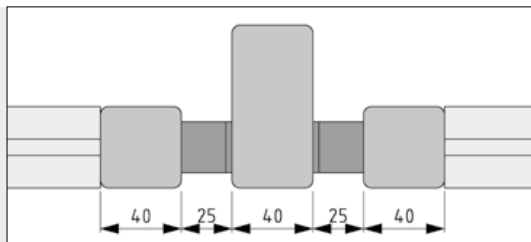
- Particularly robust connection between frame elements and Stand Profiles 8
- Secured against removal by screw attachment



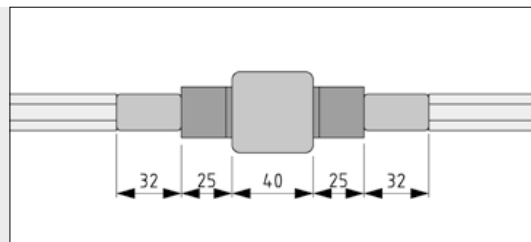
6



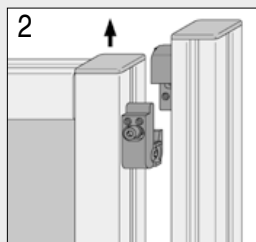
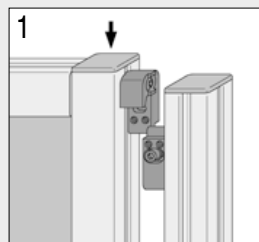
If the upper Hanger 8 is fitted to the Stand Profile and the lower Hanger 8 to the frame element, removal of Hexagon Socket Head Cap Screw M6 will result in the frame element being released.



Hanger 8 in conjunction with Clamp Profile 8 40x40.

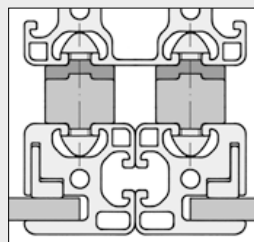


Hanger 8 in conjunction with Clamp Profile 8 32x18.

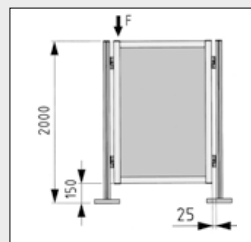


Hanger 8 allows two variations of frame assembly:

1. Very easy 1-man assembly: the frame element is lowered from above onto the hangers on the Stand Profiles, lugs on the hangers engaging to ensure stability. They are then secured by the Cap Screws provided.
2. The frame element is slid into the hanger on the Stand Profile from below and secured with the Cap Screw. Removal of the screw results in the frame element dropping down.

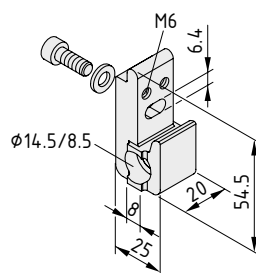


Attaching the Hanger from the front ensures that the frame and panel elements can be fitted without gaps.



F = approx. 750 N

The clearance dimension between frame and Stand Profile is 25 mm. Dimensional tolerances of ± 5 mm can be adjusted through Hanger 8.



Hanger 8

Hanger, die-cast zinc, black
Hexagon Socket Head Cap Screw DIN 912-M6x16, St, bright zinc-plated
Washer DIN 125-6.4 St, bright zinc-plated
m = 87.0 g

1 set

0.0.196.44

Fastening Set 8 for Hanger 8

Button-Head Screw ISO 7380-M8x25, St, bright zinc-pl.
2 spring washers, St, bright zinc-plated
T-Slot Nut 8 St M8, bright zinc-plated
m = 21.0 g

1 set

0.0.265.05



Dual-Rod Mesh Hanger

- Stable hold for Dual-Rod Mesh
- Fasten rod meshes at any angle
- Integrated hinge function for swing doors



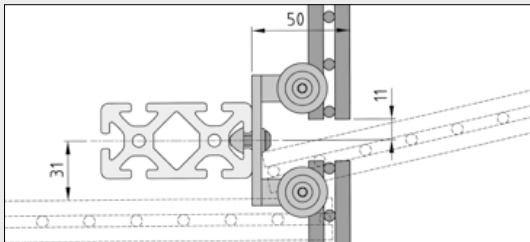
The Dual-Rod Mesh Hanger accommodates the Dual-Rod Mesh elements on the cross-rods (Ø 8 mm) at any angle between 0° - 270° to the Stand Profile. Even after the fastening screws have been tightened, the fastening can still be rotated. This also forms a hinge for a swing door.

Dual-Rod Mesh 310

Dual-Rod Mesh Lock System 293



6



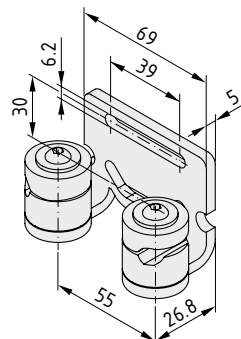
Average dimensions for connecting the Dual-Rod Mesh to the Stand Profile.

Thanks to the swivel action of the Dual-Rod Mesh Hanger, corner zones can be constructed with an extremely wide angular range.



The Dual-Rod Mesh is first hung from a preassembled Dual-Rod Mesh Hanger, and then screwed into position with further Hangers. Recommended spacing of Hangers: 3 section heights, corresponding to 600 mm.

The slotted hole fastening on the Stand Profile enables adjustment of the position and angle. The ability to move the mesh horizontally (depending on the mesh width) in the Dual-Rod Mesh Hanger helps compensate for minor assembly errors.



Dual-Rod Mesh Hanger

Body, St, black
Clamping elements, die-cast zinc, black
2 Button-Hd. Screws ISO 7380-M6x10, St, bright zinc-pl.
2 Button-Hd. Screws ISO 7380-M6x22, St, bright zinc-pl.
4 Washers DIN 9021-6.4, St, bright zinc-plated
m = 279.0 g

1 set

0.0.446.04

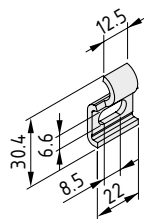
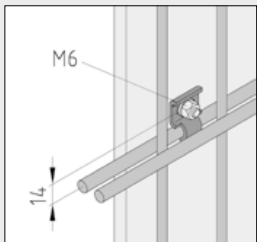


Dual-Rod Mesh Clamping Element

- Simple and practical fixing

Dual-Rod Mesh Clamping Elements for universal fastening of any components to Dual-Rod Mesh elements.

Also suitable for fastening cylindrical components (Ø 8 mm) to profiles or panel elements.



Dual-Rod Mesh Clamping Element

St
m = 11.0 g

black, 1 pce.

0.0.446.10



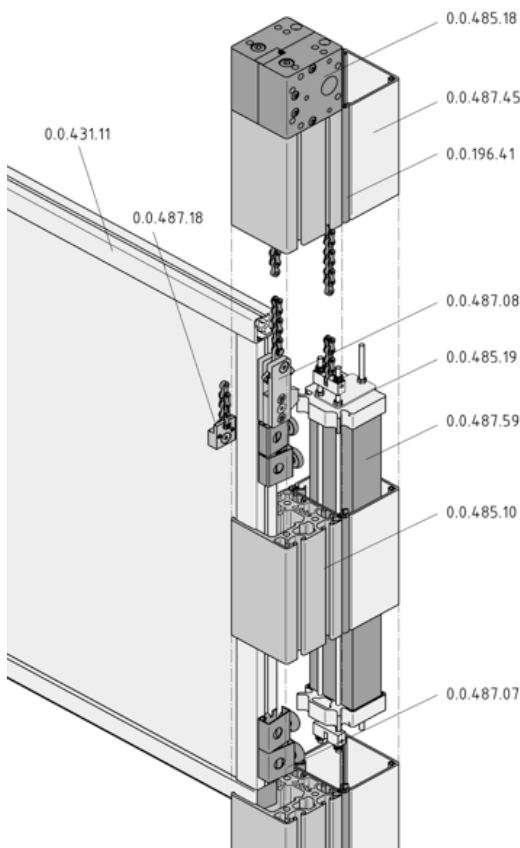
Lifting-Door System

Easy running and pre-configured to suit customised requirements

- Turnkey solution with coordinated components
- Easy-running door, balanced by chain with counterweights
- Configured and produced to suit customer requirements
- Manual or automatic operation as required
- Arrester mechanism for complete safety



6

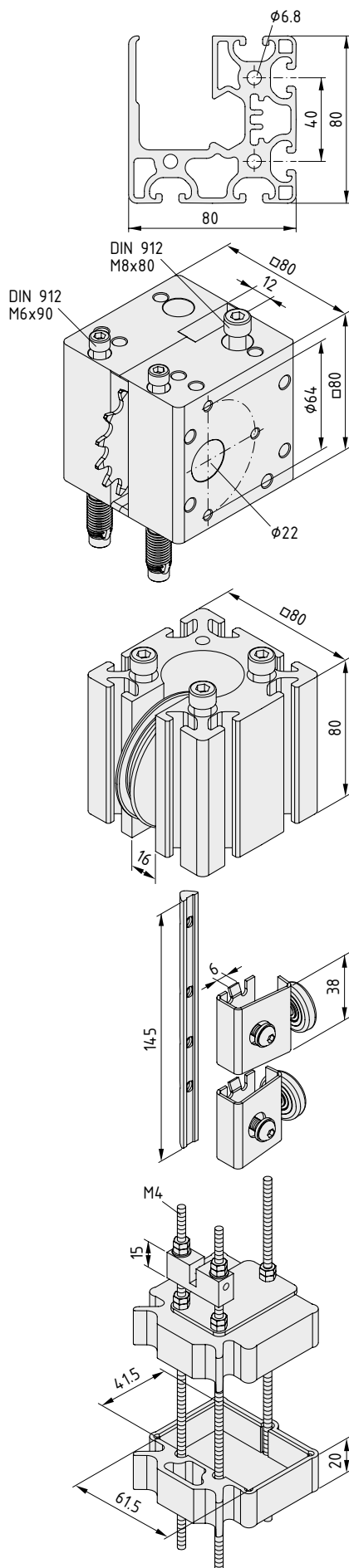


The lifting-door system from item is a modular solution that adapts to suit the specific requirements for a system. Your sales partner will design a customised configuration that meets your needs, which can be delivered to you either as complete, ready-to-install lifting doors or construction kits.

The lifting-door system comprises vertical lifting guides, door hanging system, counterweight, drive and arrester mechanism. The lifting door is constructed to suit the user's needs from a frame made using Line 6 Profiles which encloses any chosen panel element. Lifting doors should be a maximum of 2 m wide and not weigh more than 35 kg in total.

To ensure smooth operation, the lifting door uses a chain and counterweight. This runs entirely within the stand profile, thus ensuring there is no risk of injury from moving parts. An arrester mechanism halts the lifting door if it inadvertently falls. The Chain Reverse Units are designed to permit the lifting door to be driven automatically.

0.0.196.41	Support Profile 80
0.0.431.11	Clamp Profile 6 30x30
0.0.485.10	Lifting-Door Guide Profile 8 80x80
0.0.485.18	Lifting-Door Chain Reverse Unit VK14
0.0.485.19	Lifting-Door Counterweight Guide Set
0.0.487.07	Lifting-Door Bearing Set
0.0.487.08	Lifting-Door Arrester Set
0.0.487.18	Lifting-Door Chain Connector
0.0.487.45	Conduit Profile U 80x80 SE
0.0.487.59	Lifting-Door Counterweight 60x40 St



Lifting-Door Guide Profile 8 80x80



Al, anodized
m = 5.51 kg/m

natural, cut-off max. 6000 mm

0.0.485.10

natural, 1 pce., length 6000 mm

0.0.474.99

Lifting-Door Chain Reverse Unit VK14



Chain Reverse Unit, Al, coated, white aluminium (RAL9006)
Ball-bearing sprocket wheel, z = 16 (z = number of teeth)
One revolution corresponds to 203.2 mm
Hub with multi-spline DIN ISO 14-6x11x14,
hub length 30 mm, Max. load $M_D = 20$ Nm
Chain length in Reverse Unit 182.3 mm
Cap Screw DIN 912-M8x80, St, bright zinc-plated
2 Cap Screws DIN 912-M6x90, St, bright zinc-plated
2 Automatic Fasteners 8, threaded bore, St, bright zinc-pl.
Notes on Use and Installation
m = 1.3 kg

1 set

0.0.485.18

Lifting-Door Chain Reverse Unit E



Chain Reverse Unit, Al, anodized
Reversing wheel, slide bearing, PA
Chain length in Reverse Unit 182.3 mm
3 Hexagon Socket Head Cap Screws DIN 912-M8x80,
St, bright zinc-plated
Notes on Use and Installation
m = 1.0 kg

1 set

0.0.487.14

Lifting-Door Bearing Set



2 castor units, with ball bearing
Special T-slot nut 6 St
2 washers DIN 125-6.4, St, bright zinc-plated
2 Button-Head Screws ISO 7380-M6x12, St, bright zinc-plated
m = 129.0 g

1 set

0.0.487.07

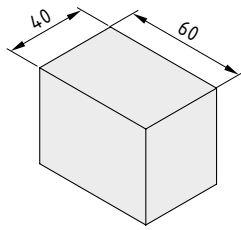
Lifting-Door Counterweight Guide Set



2 Slide Guides, POM, black
3 threaded rods DIN 975-M4x1000, St
Chain fastener, St, bright zinc-plated
2 retaining plates, St, bright zinc-plated
Nuts and washers, St, bright zinc-plated
m = 442.0 g

1 set

0.0.485.19

**Lifting-Door Counterweight 60x40 St**

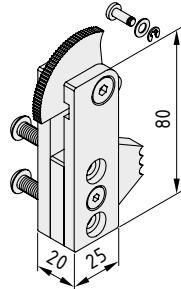
Bar steel DIN 1017-60x40, cold-rolled
 $m = 18.84 \text{ kg/m}$

cut-off max. 3000 mm

0.0.487.59

1 pce., length 3000 mm

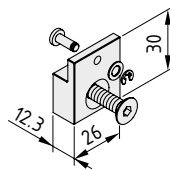
0.0.487.57

**Lifting-Door Arrester Set**

Housing and brake lever, St, bright zinc-plated
 Chain pin with lock washer, St, bright zinc-plated
 Washers, St, bright zinc-plated
 Button-Head Screw ISO 7380-M6x25, St, bright zinc-plated
 Button-Head Screw ISO 7380-M6x35, St, bright zinc-plated
 $m = 307.0 \text{ g}$

1 set

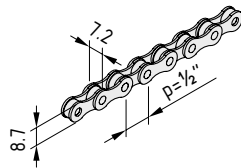
0.0.487.08

**Lifting-Door Chain Connector**

Chain fastening, St, bright zinc-plated
 Washers, St, bright zinc-plated
 Chain pin with lock washer, St, bright zinc-plated
 Countersunk Screw DIN 7991-M6x30, bright zinc-plated
 $m = 65.0 \text{ g}$

1 set

0.0.487.18

**Chain 1/2"**

St, nickel-plated
 Pitch $p = 12.7 \text{ mm}$ corresponding to $\frac{1}{2}"$
 Operating load = max. 1.400 N
 Elongation at 1,400 N = 2.5 - 3 ‰
 $m = 215 \text{ g/m}$

cut-off max. 25 m in 1" intervals

0.0.465.17

1 roll length 25 m

0.0.602.31

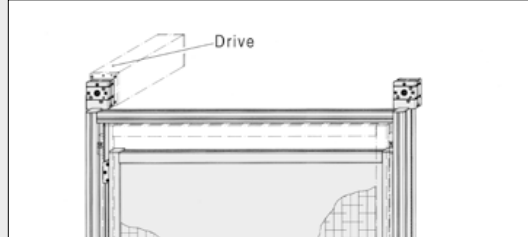
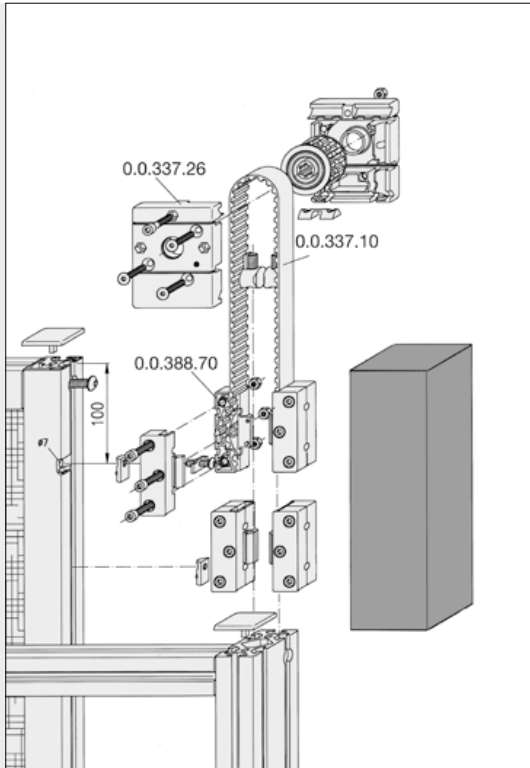


Lifting-Door Guide Set

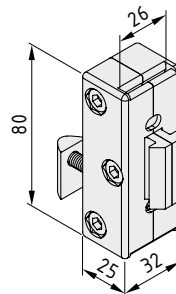
- Guide runs along the Line 8 groove
- For connecting door panel and counterweights
- Manual drive or Timing-Belt Reverse Unit drive possible



6



The use of Timing-Belt Reverse Units is a basic requirement for using drive units. The process of opening and closing lifting doors can thus be automated and integrated into manufacturing systems or transport sequences.



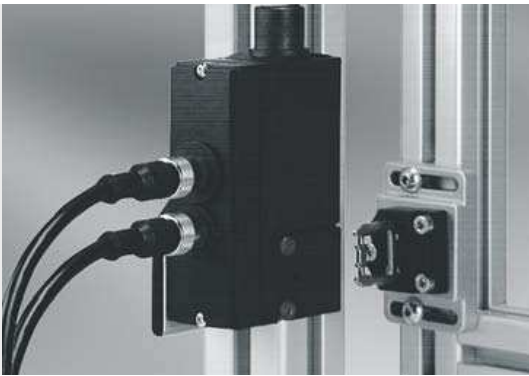
Lifting-Door Guide Set 8



Housing halves, POM, black
Steel insert, St, bright zinc-plated
Button-Head Screw ISO 7380-M6x25, St, bright zinc-plated
T-Slot Nut 8 St M6, bright zinc-plated
3 Cap Screws DIN 912-M6x25, St, bright zinc-plated
3 Hexagon Nuts DIN 934-M6, St, bright zinc-plated
m = 94.0 g

1 set

0.0.388.70



Security Limit Switch / Lock compact

- For swing, lifting and sliding doors
- Know when doors are being opened
- Ensure doors latch securely when in use
- Failsafe locking system



The actuator is available in two models – the fixed design is suitable for medium-sized sliding and swing doors (door width greater than 500 mm and smaller than 1000 mm), while the movable actuator is recommended for swing doors of width < 500 mm (angle compensation) and for particularly large doors.

Design complies with EN ISO 13849-1

$$MTTF_d = \frac{B_{10d}}{0,1 \cdot n_{op}}$$

$$n_{op} = \frac{d_{op} \cdot h_{op} \cdot 3600 \text{ s/h}}{t_{cycle}}$$

Both switching units are equipped with screw-secured plug connectors, which make the electrical connection particularly easy. In the case of Security Limit Switch compact, this is done using Proximity Switch Connecting Cable Code A, 0.0.473.25. In the case of Security Lock compact, the Proximity Switch Connecting Cable Code B, 0.0.473.93 is also required.

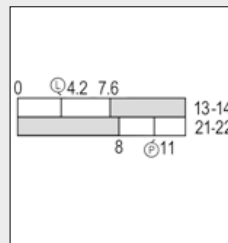
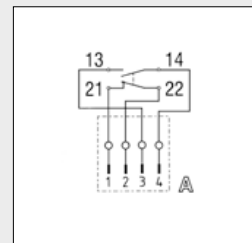
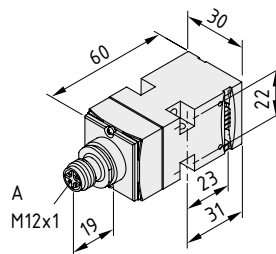


Illustration of circuits:
Security Limit Switch
compact



Wiring diagram:
Security Limit Switch
compact



Security Limit Switch compact

Casing, PA-GF, black
Positive break
Rated voltage: 24 V AC/DC / 230 V AC, 4A
Protection: IP 67, EN 60529
Test certification to BG-GS-ET-15
Washers
 B_{10d} switch (NC) 2,000,000
 B_{10d} switch (NO) 1,000,000
Note: at 10% and with ohmic load
Service life: 20 years
 $m = 80.0 \text{ g}$

1 pce.

0.0.473.90

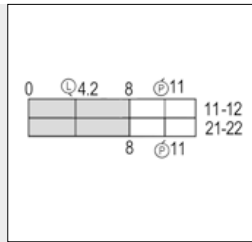
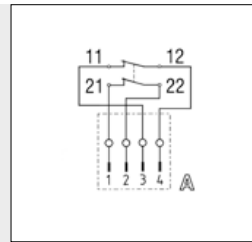
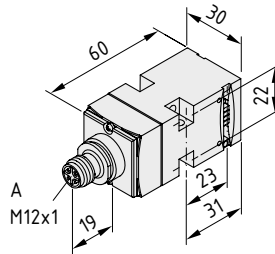


Illustration of circuits:
Security Limit Switch compact 2NC



Wiring diagram:
Security Limit Switch compact 2NC



Security Limit Switch compact 2NC

Casing, PA-GF, black
Positive break
Rated voltage: 24 V AC/DC / 230 V AC, 4A
Protection: IP 67, EN 60529
Test certification to BG-GS-ET-15
Washers
B_{10d} switch (NC) 2,000,000
Service life: 20 years
m = 80.0 g

1 pce.

0.0.489.85

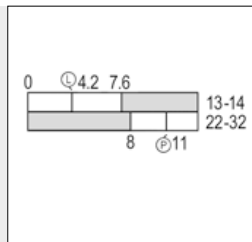
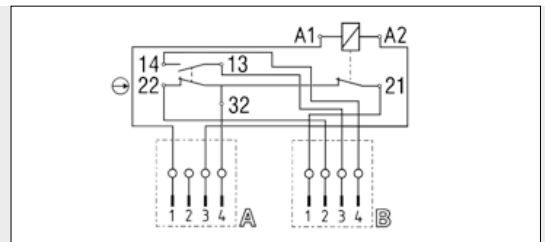
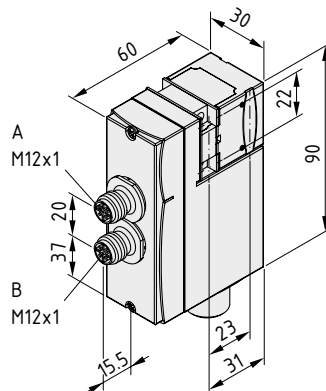


Illustration of circuits:
Security Lock compact



Wiring diagram:
Security Lock compact



Security Lock compact, 230 V AC

Casing, PA-GF, black
Positive break
Rated control supply voltage: 230 V AC
Protection: IP 67, EN 60529
Test certification to BG-GS-ET-19
Triangular socket wrench DIN 22417 M5
B_{10d} switch (NC) 2,000,000
Service life: 20 years
m = 305.0 g

1 set

0.0.473.27

Security Lock compact, 24 V AC/DC

Casing, PA-GF, black
Positive break
Rated control supply voltage: 24 V AC/DC
Protection: IP 67, EN 60529
Test certification to BG-GS-ET-19
Triangular socket wrench DIN 22417 M5
B_{10d} switch (NC) 2,000,000
Service life: 20 years
m = 305.0 g

1 set

0.0.473.26

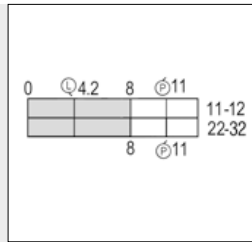
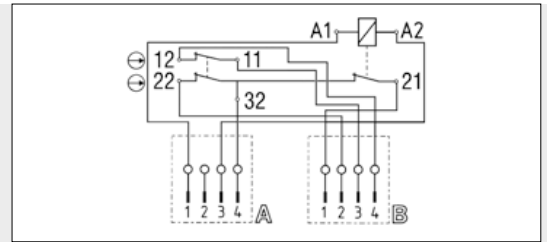
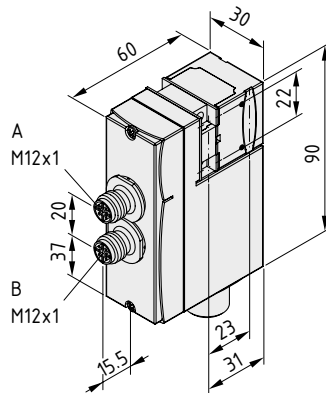


Illustration of circuits:
Security Lock compact 2NC



Wiring diagram:
Security Lock compact 2NC



Security Lock compact 2NC, 230 V AC

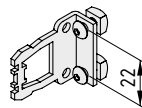
Casing, PA-GF, black
Positive break
Rated control supply voltage: 230 V AC
Protection: IP 67, EN 60529
Test certification to BG-GS-ET-19
Triangular socket wrench DIN 22417 M5
B_{10d} switch (NC) 2,000,000
Service life: 20 years
m = 305.0 g

1 set	0.0.489.83
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Security Lock compact 2NC, 24 V AC/DC

Casing, PA-GF, black
Positive break
Rated control supply voltage: 24 V AC/DC
Protection: IP 67, EN 60529
Test certification to BG-GS-ET-19
Triangular socket wrench DIN 22417 M5
B_{10d} switch (NC) 2,000,000
Service life: 20 years
m = 305.0 g

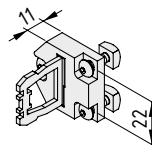
1 set	0.0.489.82
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Fixed Actuator for Security Limit Switch / Lock compact

St, corrosion-resistant
2 security button-head screws M4x10, St, bright zinc-plated
2 square nuts similar to DIN 557-M4-5, St, bright zinc-plated
m = 16.0 g

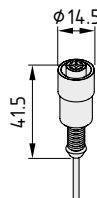
1 set	0.0.473.23
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Movable Actuator for Security Limit Switch / Lock compact

PA-GF / St, corrosion-resistant
3 security button-head screws M4x14, St, bright zinc-plated
3 square nuts similar to DIN 557-M4-5, St, bright zinc-plated
m = 22.0 g

1 set	0.0.473.24
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Security Switch Connecting Cable M12x1 Code A

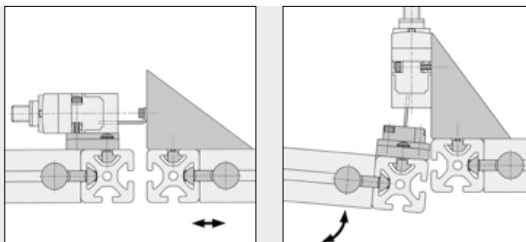
Connecting cable 4x0.75 mm² l = 5 m d = 6 mm
m = 317.0 g

1 pce.	0.0.473.25
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Security Switch Connecting Cable M12x1 Code B

Connecting cable 4x0.75 mm² l = 5 m d = 6 mm
m = 317.0 g

1 pce.	0.0.473.93
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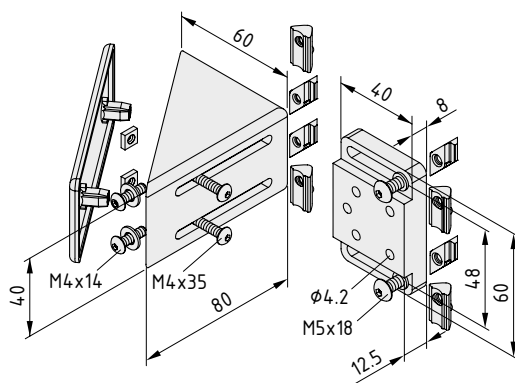


Fastening Set 6-8 is suitable for universal fastening of the Security Limit Switch/Security Lock compact and the actuator to Profiles 6 and/or 8. The slots allow customised adaptation to the direction of actuation and the position of the elements in relation to each other.

6

Security L-Key Set

596



Fastening Set 6-8 for Security Limit Switch / Lock compact

Angle bracket 6-8, die-cast zinc, similar to RAL 9006

Angle bracket cap 6-8, PA-GF, black

Fastening plate 6-8, die-cast zinc, similar to RAL 9006

Fastening elements: security button-head screws and T-Slot Nuts

m = 349.0 g

1 set

0.0.473.22