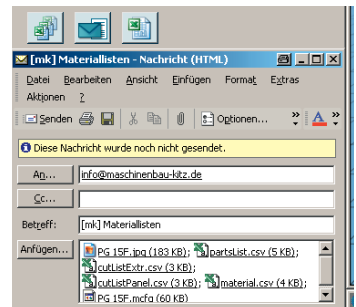
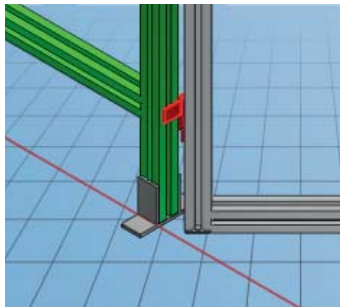
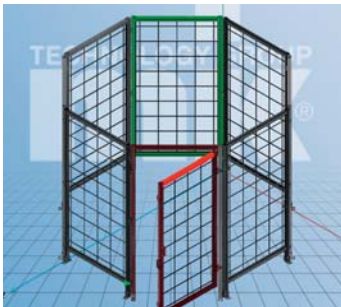


# Notes on Guarding



[www.mk-group.com/en/guarding](http://www.mk-group.com/en/guarding)

## Guarding Configurator



- Reduce your development and design time
- Large selection of panelling materials and door variants
- Standardised components for reduced costs
- No CAD system or CAD knowledge necessary
- Design in three dimensions with intuitive user guidance

- Option to import DXF layouts
- Export 3D drawings to IGES, STEP and JPEG format
- Automatically generate saw lists, weight estimates and bills of materials for individual parts and assemblies
- Choose your preferred degree of assembly (raw material/ assemblies/turnkey)

- Posts and partitions can be connected at variable angles from 0° bis 135°
- Automatic determination of support brackets
- Full/half support brackets and end caps can be manually selected and combined
- Pillar-panel solution: End cap options allows for quick disassembly using straight plate fasteners

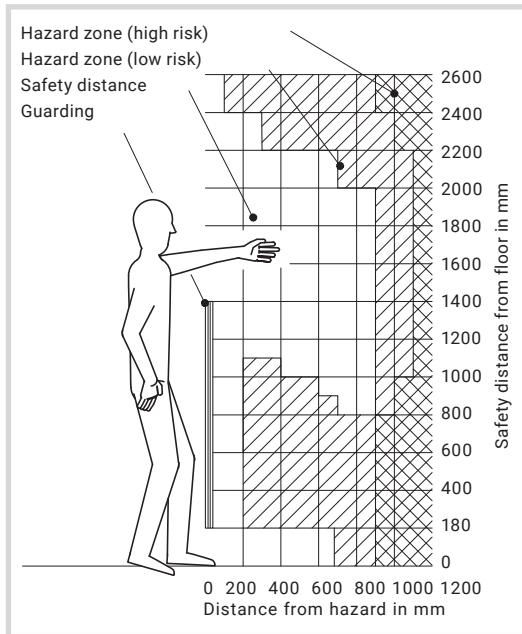
## Safety Distances

Our guarding has a flexible, modular design to allow you to secure your systems, machines and production areas effectively and economically. Choose from a wide range of machine housings, protective fences, panelling, doors and windows, all of which can be electronically secured if desired. It is also a cinch to connect pneumatically, hydraulically or electrically operated door elements to your machine control system. All mk guarding is designed and manufactured in accordance with the safety standards applicable in your country. You can be sure that you and your employees are always on the safe side.

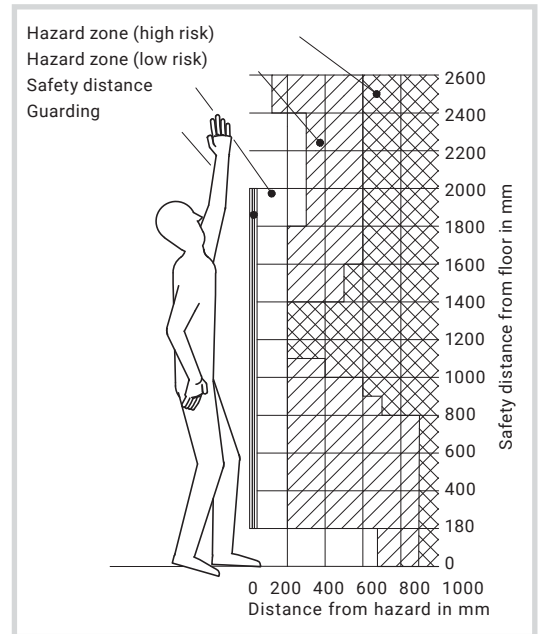
Legally mandated safety distances to hazards are defined to ensure safety. Choose the appropriate panelling for your required safety distance. Closed panelling such as sheet metal, polycarbonate or glass have a required safety distance of 0 mm. Open panelling such as welded grids or wire meshes have a required safety distance of 200 mm (for 40 x 40 mm openings). With the preferred partition method, standard frame heights of 1400/2000 mm and 1460/2060 mm are available according to the height of your particular hazard. Custom heights are available on request.

7

### Distance from hazard for 1400 mm frame height



### Distance from hazard for 2000 mm frame height



These distances are in accordance with the DIN EN ISO 13857:2008-06 standard (Safety distances to prevent hazard zones being reached by upper and lower limbs).



» Machine housings and protective fences for increased occupational safety. «

Our guarding range is based on the mk profile system and offers functional machine housings, enclosures and protective fences. Their flexible, modular design ensures that systems, machines and production areas can be secured effectively and economically.

The System Selection section below shows the three possible variants. The partition method is the preferred method and the standard design used by mk. Therefore, the various modules are shown in full only for the partition method in the following section.

The various methods are based on the same grid dimensions. This ensures that all systems remain modular and compatible. mk also offers custom solutions tailored to our customers' specific needs.

The floor clearance of the guarding is 180 mm as standard, which allows for floor cleaning without compromising safety. The profile structure's favourable mass-to-strength ratio offer ergonomic benefits when handling and installing the elements.

## System Selection

### ECO Solution

Because it requires less material, the ECO solution is the most cost-effective alternative, but it requires significantly more installation work. mk therefore prefers the partition method, since the individual partitions can be quickly and easily installed on site.

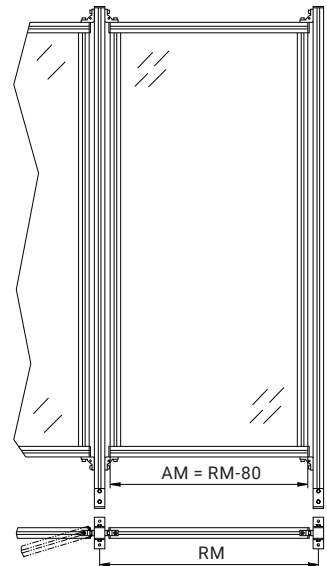
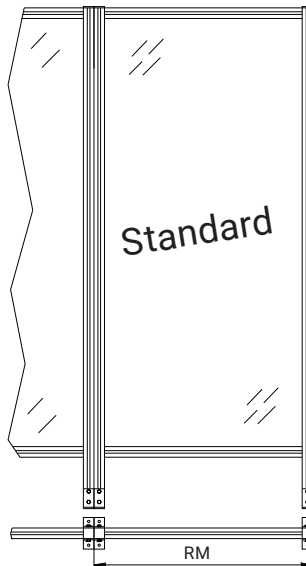
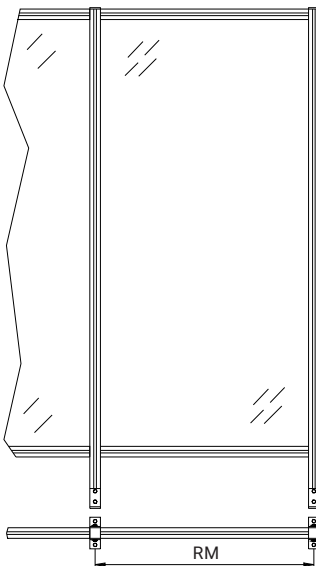
### Partition Method

The partition method, which is the standard at mk, is an economical, sturdy and easy-to-install type of guarding. Because of the flush connections between the partitions, this method is excellently suited for both long, straight paths and for designs with variable angles.

### Pillar-Panel Solution

The pillar-panel solution features separate panel frames that are mounted between posts anchored to the floor. This allows you to easily remove individual partitions, and the captive fastening system allows you to do so in accordance with the Machinery Directive.

7



AM = outer dimension RM = grid dimension

# Partitions and Doors

## Partitions

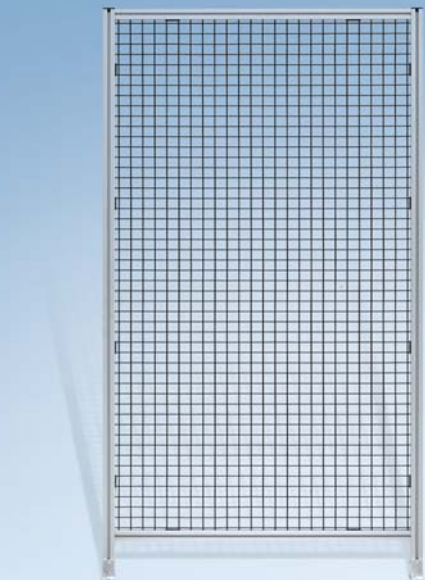
### ... for the Partition Method

Our standard partitions and doors for the partition method are presented below, each with a fastening example. Plate fastening is the preferred method for connecting a partition to the adjacent partitions. The heights and grid dimensions can be adapted to customer-specific requirements.

### Information required for ordering

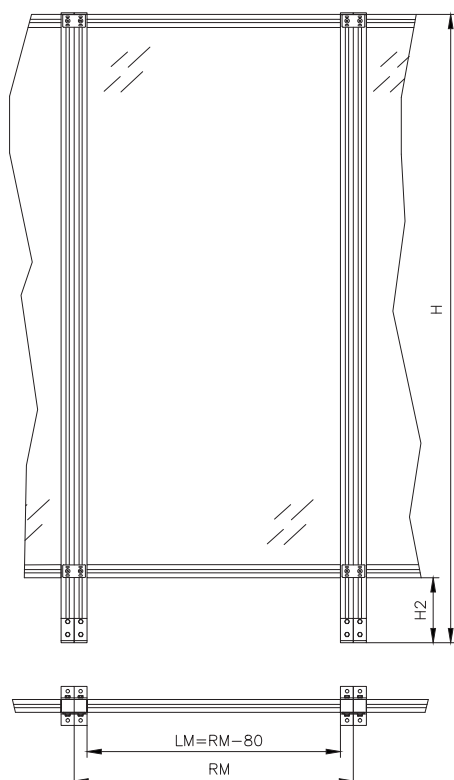
- RM (500, 750, 1000, 1250 as standard, also 1500 and 2000 mm with vertical brace)
- H (2060 or 1460 mm as standard)
- H2 (180 mm as standard)
- H4 (optional for partitions with horizontal brace)
- Panelling

The panelling (e.g. polycarbonate) must be specified when ordering; otherwise the assemblies (B...) will be delivered without panelling.

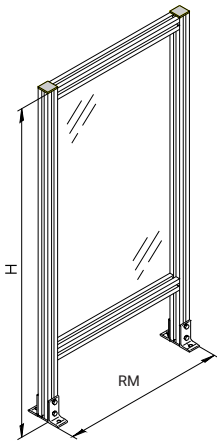


Panelling starting on page 232  
Corner blocks on page 95

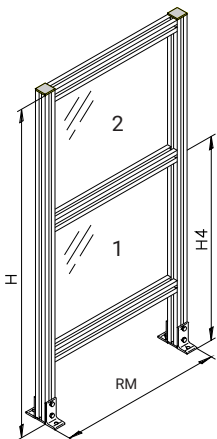
### Fastening example



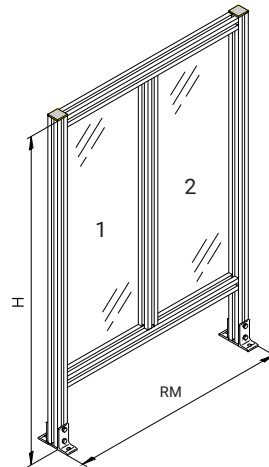
LM = clear dimension  
RM = grid dimension



Simple partition  
**B69.51.001**



Partition  
with horizontal brace  
**B69.51.002**



Partition  
with vertical brace  
**B69.51.003**

**Assemblies (B...):**

mk 2040.31 profile, connecting elements, support brackets, end caps, panelling (if specified when ordering, otherwise none).

# Partitions and Doors

## Swing Doors

### ... for the Partition Method

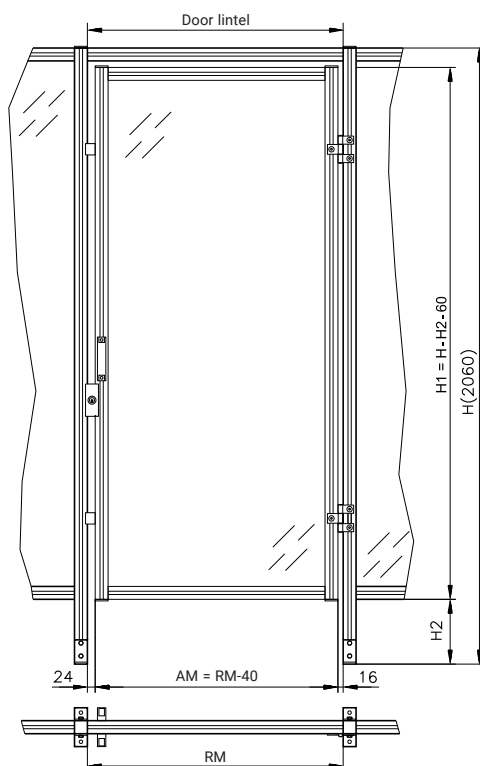
A swing door is connected to the sides of partitions using hinges. The door lintel that connects the partitions provides the necessary stability. It can be used for both single-leaf and double-leaf swing doors.

The dimensions of the doors can be selected freely. The standard height from floor level is 2000 mm; based on the standard brush height of 180 mm, this means  $H1 = 1820$  mm. Various panelling options, lock types and safety interlocks are available.

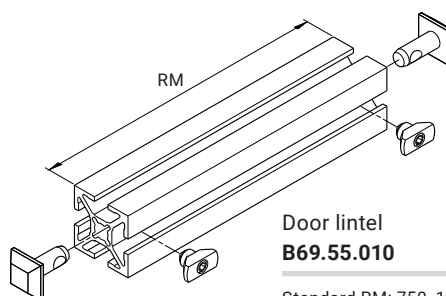


Panelling starting on page 232  
Locks starting on page 256

### Fastening example



AM = outer dimension of swing door  
RM = grid dimension between two partitions

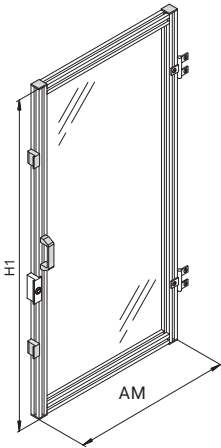


Standard RM: 750, 1000,  
1250, 1500, 2000 mm

### Assemblies (B...):

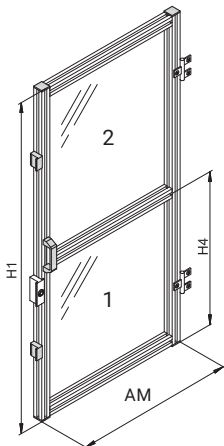
mk 2040.40 profile, connecting elements

## Single Swing Doors



Swing door,  
single-leaf  
DIN right  
**B69.60.001**

DIN left  
**B69.60.002**



Swing door,  
single-leaf  
with horizontal  
brace  
DIN right  
**B69.60.003**

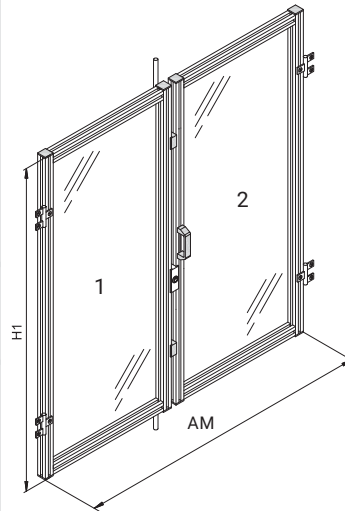
DIN left  
**B69.60.004**

### Assemblies (B...):

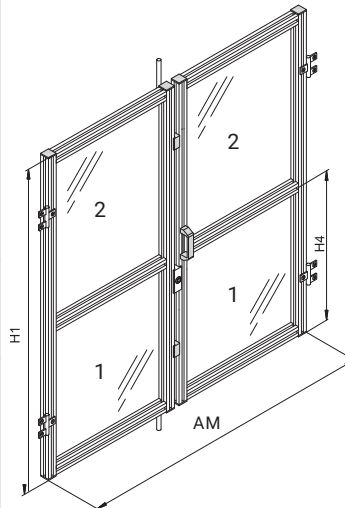
mk 2040.40 profile, connecting elements, stops, handles, end caps, hinges, lock, panelling (if specified when ordering, otherwise none).

## Double Swing Doors

Double swing doors are equipped with additional interlocks on the top and bottom.



Swing door,  
double-leaf  
**B69.60.005**



Swing door,  
double-leaf  
with horizontal  
brace  
**B69.60.006**

### Information required for ordering

■ RM, H1, H4 optional, panelling, lock type



# Partitions and Doors

## Sliding Doors

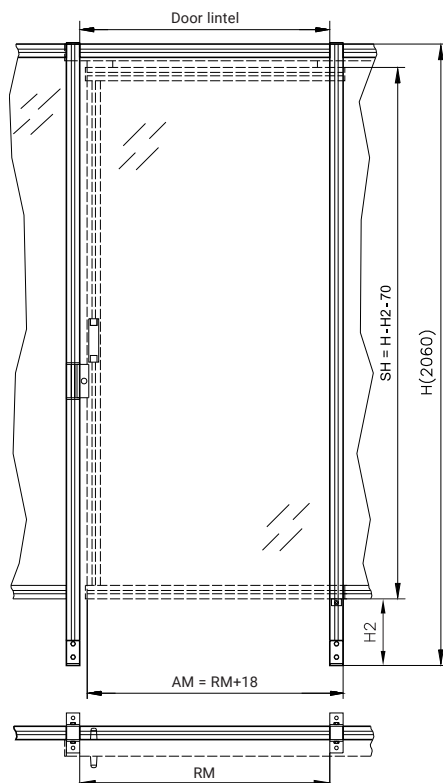
### ... for the Partition Method

The combination of track and B38.00.045 roller carriage provides an extremely sturdy sliding mechanism while also offering the benefits of a closed rail system. As with swing doors, sliding doors are mounted on the sides of two partitions, which are connected by the door lintel included in the assembly.

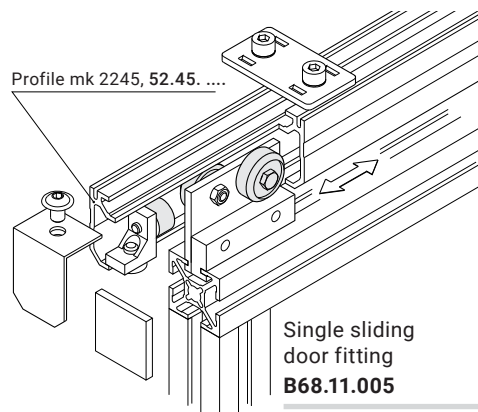


Panelling starting on page 232  
Locks starting on page 256

### Fastening example



AM = outer dimension of sliding door  
RM = grid dimension  
SH = sliding door height



Single sliding  
door fitting  
**B68.11.005**

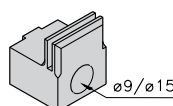
$L = 2 \times RM + 40$

Double sliding  
door fitting  
**B68.11.006**

$L = 4 \times RM + 40$

Sliding door  
roller carriage  
**B38.00.045**

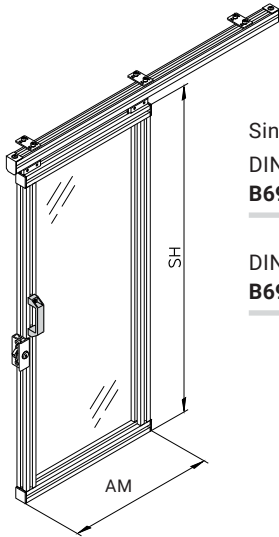
Max. 30 kg



**M8x25**

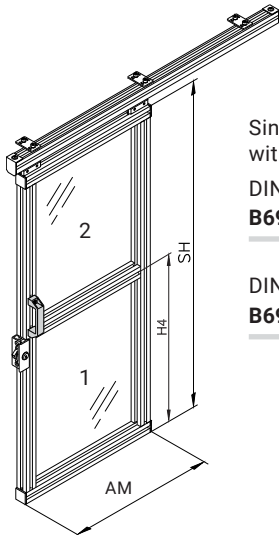
Guide piece  
**19.00.0005**

Black plastic



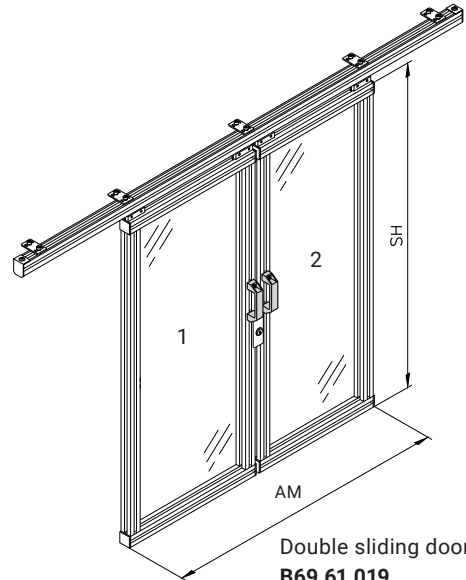
Single sliding door  
DIN right  
**B69.61.015**

DIN left  
**B69.61.016**

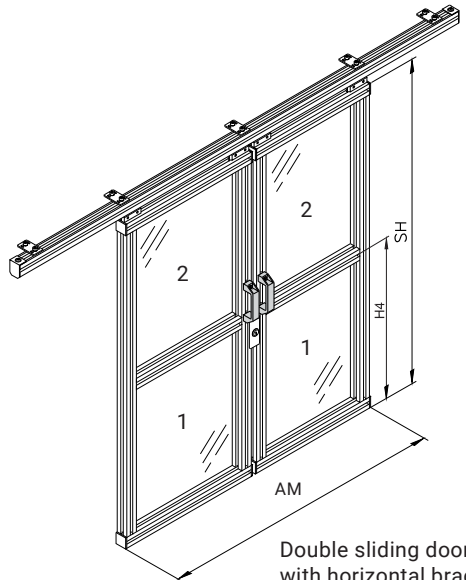


Single sliding door  
with horizontal brace  
DIN right  
**B69.61.017**

DIN left  
**B69.61.018**



Double sliding door  
**B69.61.019**



Double sliding door  
with horizontal brace  
**B69.61.020**

#### Assemblies (B...):

mk 2040.31 and mk 2245 profiles, connecting elements, fitting set, handles, end caps, buffer, lock, panelling (if specified when ordering, otherwise none).

#### Information required for ordering

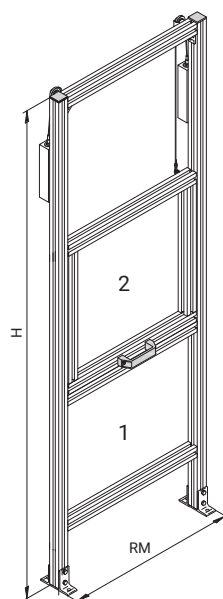
■ RM, SH, H4 optional, panelling, lock type

# Partitions and Doors

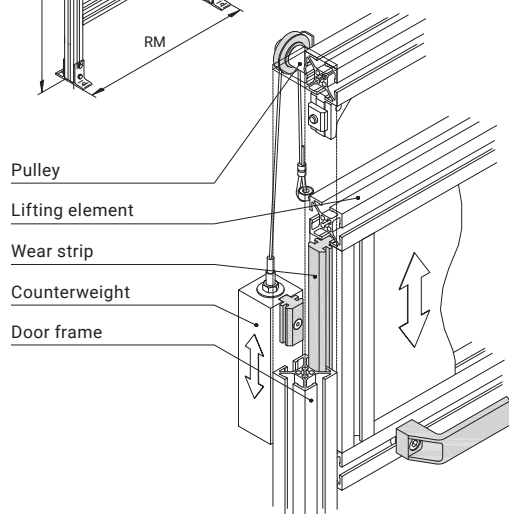
## Simple Lifting Doors

### ... for the Partition Method

Lifting doors consist of a solid partition and a lifting element, which is balanced using steel cables that are connected to counterweights via idler pulleys. This lets you easily lift and lower the door manually. Pneumatic or electronic activators are available on request.



Simple lifting door  
**B69.62.001**



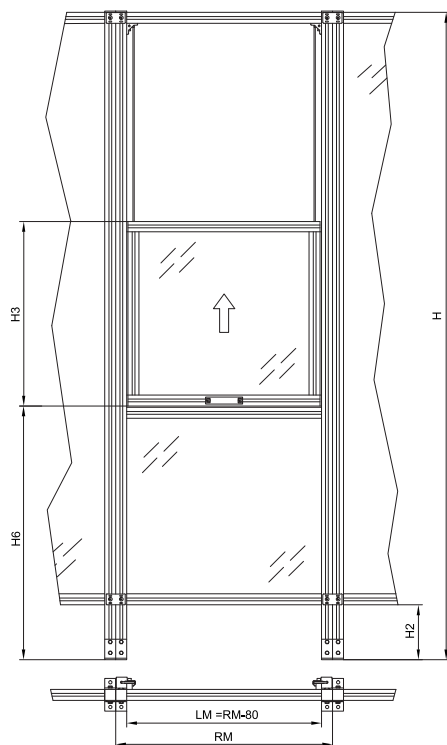
### Information required for ordering

■ RM, H, H2, H3, H6, Hub, panelling



Panelling  
starting on page 232

### Fastening example

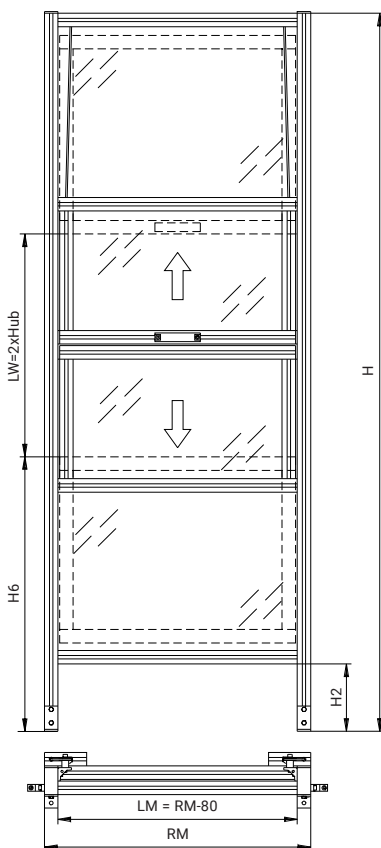


LM = clear dimension  
RM = grid dimension

## Scissor Doors

### ... for the Partition Method

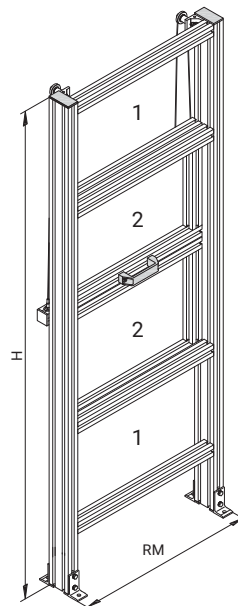
With opposing lifting doors, lifting is facilitated by the weight balancing provided by the other door moving in the opposite direction. Pneumatic or electronic activators are available on request.



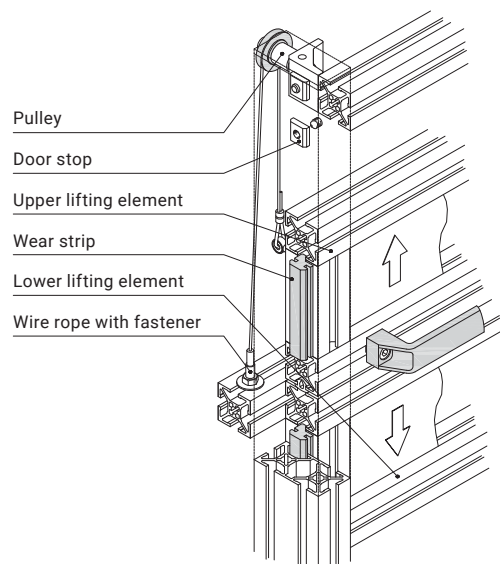
$LM$  = clear dimension  
 $RM$  = grid dimension

#### Assemblies (B...):

mk 2040.40 and mk 2040.41 profiles, connecting elements, support brackets, handle, wear strips, idler pulleys, panelling (if specified when ordering, otherwise none).



Scissor door  
**B69.62.002**



#### Information required for ordering

■  $RM$ ,  $H$ ,  $H_2$ ,  $LW$ ,  $H_6$ , panelling

# Partitions and Doors

## Posts

### ... for the Pillar-Panel Solution

The pillar-panel solution features separate panel frames that are mounted between posts anchored to the floor. This allows you to easily remove individual partitions, and the captive fastening system allows you to do so in accordance with the Machinery Directive (see below). The angle mounting method allows them to be installed at various angular degrees. The heights and grid dimensions can be adapted to customer-specific requirements.

### Information required for panel frame orders

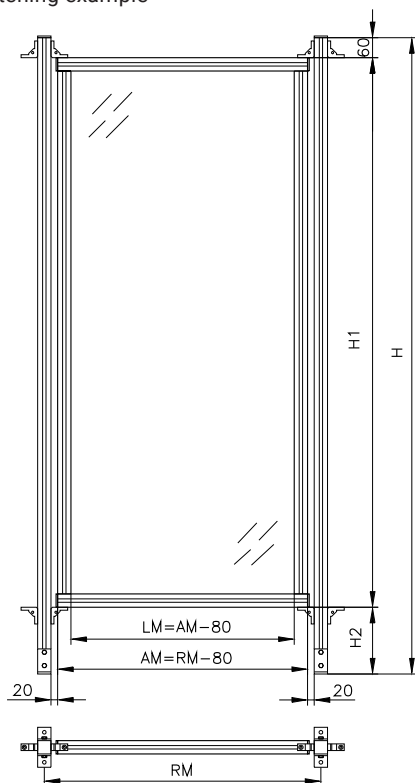
- RM (500, 750, 1000, 1250 as standard, also 1500 and 2000 mm with vertical brace)
- H (2060 as standard)
- H2 (180 mm as standard)
- H4 (optional for partitions with horizontal brace)
- Panelling

The panelling (e.g. polycarbonate) must be specified when ordering; otherwise the assemblies (B...) will be delivered without panelling.

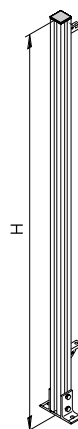


Panelling starting on page 232  
Captive fastening system on page 224

### Fastening example



LM = clear dimension  
AM = outer dimension  
RM = grid dimension



Post 1  
**B69.65.001 H ....**

Post (without angle)  
**B69.65.000 H ....**

Not pictured

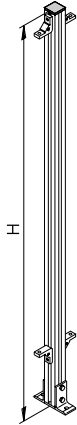
### Assemblies (B...):

mk 2040.31 profile, angle B20/40, nuts with screws, end cap, support bracket

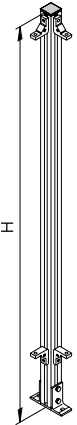
## Panel Frames

... for the Pillar-Panel Solution

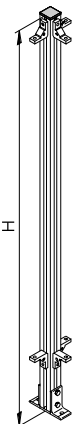
Outer dimension AM: RM - 80 mm  
Standard height H1: 1820/1220 mm



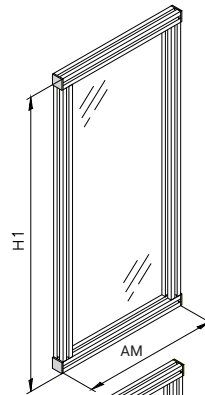
Post 2  
**B69.65.002 H ....**



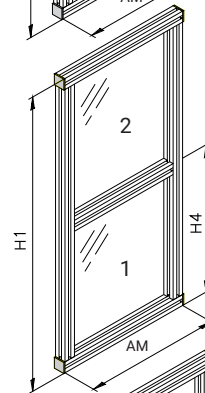
Post 3  
**B69.65.003 H ....**



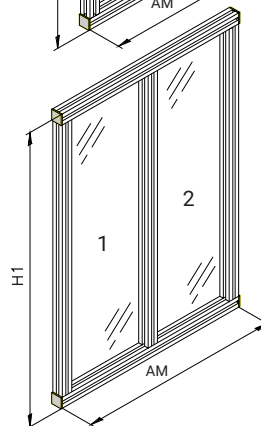
Post 4  
**B69.65.004 H ....**



Simple panel frame  
**B69.50.001**



Panel frame  
with horizontal brace  
**B69.50.002**



Panel frame  
with vertical brace  
**B69.50.003**

### Assemblies (B...):

mk 2040.31 profile, connecting elements, end caps, panelling (if specified when ordering, otherwise none).

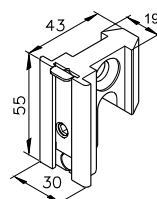
# Partitions and Doors

## Captive Fastening System

### ... for the Pillar-Panel Solution

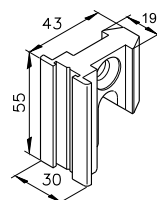
The captive fastening system allows you to quickly and conveniently install and remove partitions, for instance during maintenance work. In accordance with the Machinery Directive, the parts to be undone for removing the partition are designed so that they cannot be detached from the machine. The guarding features a robust construction, can be attached and detached using widely available tools. You can choose between two different variants based on your particular application.

25 40 50 60



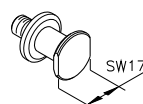
Holder, captive  
**B46.00.243**

Complete, including bolts and fastening accessories



Holder, open  
**B46.00.245**

Complete, including bolts and fastening accessories



Bolt  
**05.06.0015**

Galv. steel

## Fastening example

Countersunk head screw M8x25  
**D7991825**

Holder, captive  
**26.02.0005**, tumbled Al

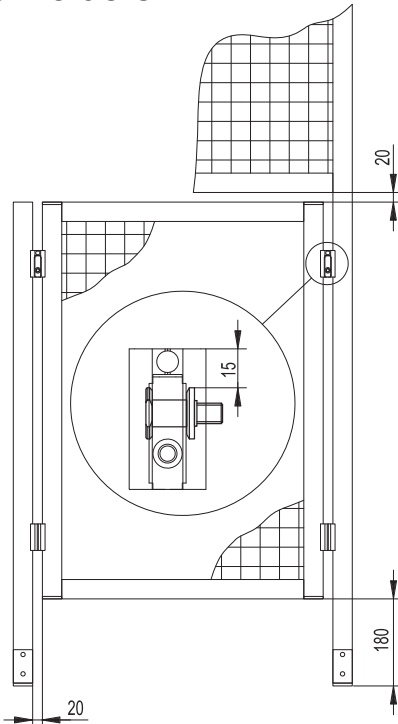
Bolt **05.06.0015**, galv. steel

Nut 1 M8, **34.01.0001**, galv. steel

The following is required to mount a partition:

- If captive fastening is required: 2 x B46.00.243 (top) and 2 x B46.00.245 (bottom)
- If locking is not required:  
4 x B46.00.245 (top and bottom)

## Installing the bolts and Holders



- Attach two (top) holders to both sides of the partition to be removed using a countersunk head screw and a nut. Make sure they are the same height.
- Screw two bolts into the profiles to the left and right of the partition to be removed using nut 1 M8. The distance from the top edge of the holder to the top edge of the bolt should be 15 mm.
- Attach two (bottom) holders as described above. Make sure they are the same height. Measure the distance between the top and bottom holders.
- Screw in two bolts as described above. Make sure the distances from top to bottom bolt are equal.
- If you need the partition to fall out when the guarding is unlocked (caution: risk of injury!), the bolts must be fastened to the partition and the holders fastened to the posts.

## Installing the Partitions

■ For installation, the cover sheet must be in the upper position and the threaded pin must be unscrewed from the opening in the sheet (against the retaining sheet). The red marking is now visible.



■ Place the lower holder on the lower bolts. Tip the partition slightly to do so.

■ Swivel the partition so that the upper holders lean against the upper bolts, then lift by about 20 mm and swivel to vertical.



■ Lower the partition and allow all four holders to lock into the bolts.



■ Tighten the threaded pins integrated in the holders to lock the partition. If using captive holders, the cover sheet falls to its lower position, thereby covering the red marking and exposing the green one. This way you can always tell whether the partition is secured.

■ Perform the same procedure in reverse to remove the partition.



## Windows

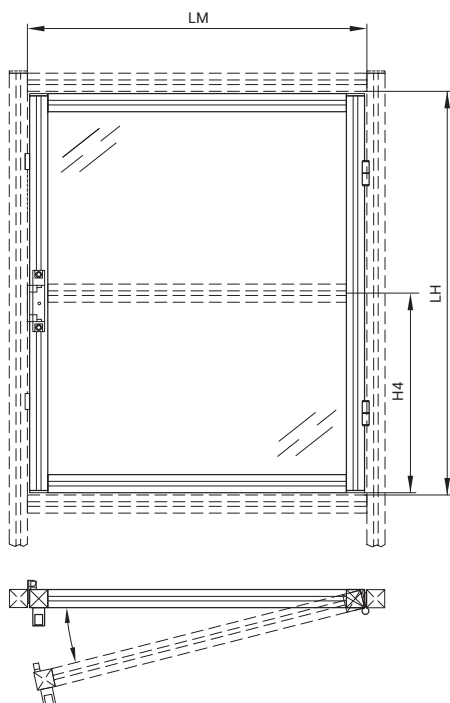
### Single-Leaf Windows with Ball Latch

The ball latch ensures that the window can be reliably and securely locked in the profile frame. Safety interlocks should be used in openings that are critical for safety.



Panelling starting on page 232  
Locks starting on page 256

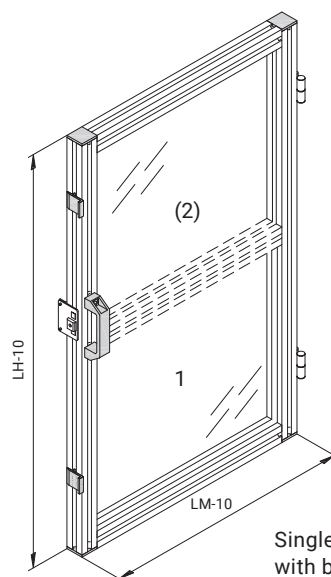
#### Fastening example



5 mm gap along the perimeter

#### Assemblies (B...):

mk 2040.31 profile, connecting elements, handle, end caps, hinges, stops and ball latches, without panelling.



Single-leaf window  
with ball latch  
**B68.07.001**

Cross brace optional

#### Information required for ordering

■ LM, LH, H4 optional, panelling

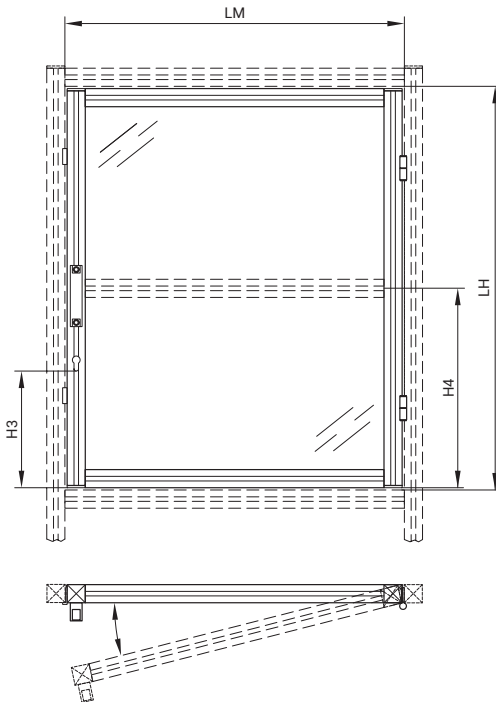
## Single-Leaf Windows with Cylinder Lock

mk also offers a window with a cylinder lock in the profile as an alternative to windows with a ball latch lock.



Panelling starting on page 232  
Locks starting on page 256

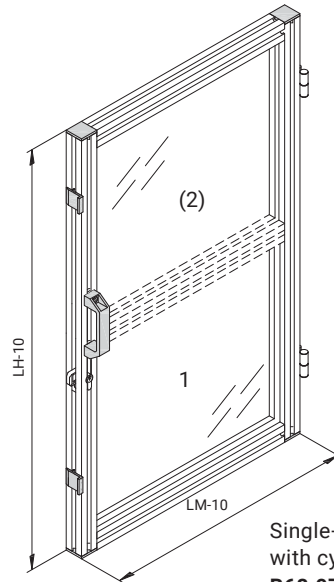
### Fastening example



5 mm gap along the perimeter

### Assemblies (B...):

mk 2040.31 profile, connecting elements, handle, end caps, hinges, stops, cylinder lock, panelling (if specified when ordering, otherwise none).



Single-leaf window with cylinder lock  
**B68.07.002**

Cross brace optional

### Information required for ordering

■ LM, LH, H3, H4 optional, panelling

# Windows

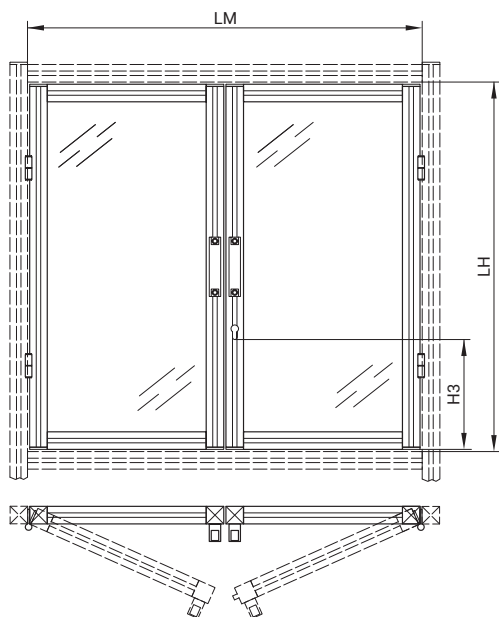
## Double-Leaf Windows

The double-leaf variant should be used if the space requirements do not permit a single-leaf window.



Panelling starting on page 232  
Locks starting on page 256

### Fastening example

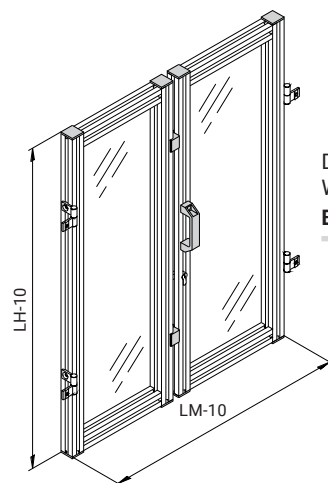


Max. clear dimension (LM) = 1200 mm

Max. clear height (LH) = 1800 mm

### Assemblies (B...):

mk 2040.31 profile, connecting elements, handle, end caps, hinges, lock, panelling (if specified when ordering, otherwise none).



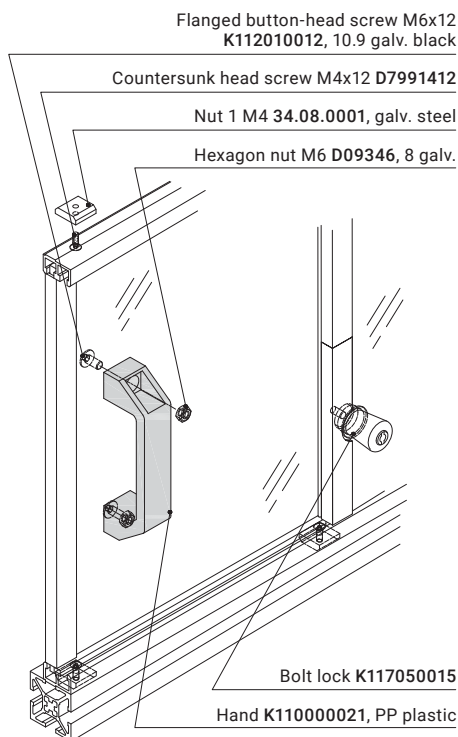
Double-Leaf  
Windows  
**B68.07.003**

### Information required for ordering

■ LM, LH, H3, panelling



### Fastening example



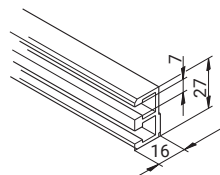
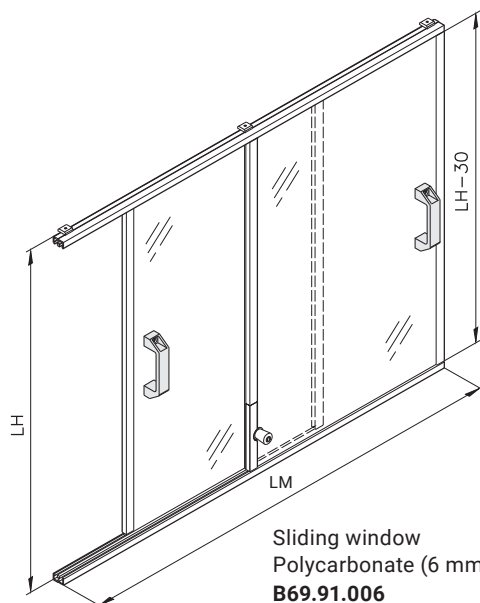
Max. clear dimension (LM) = 1200 mm  
Max. clear height (LH) = 1000 mm

### Assemblies (B...):

mk 2240, mk 2207 profiles, connecting elements, handle, stops, lock and panelling.

## Sliding Windows

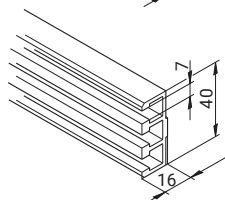
The mk 2240 and mk 2241 profiles can be used in Series 40 and 50 structures. When the window is not completely closed, both sliding elements can be installed or removed as needed. When closed, they are locked using a bolt lock.



### Profile mk 2240

0.47 kg/m

Stock length	<b>52.40.5100</b>
Cut	<b>52.40. ....</b>



### Profile mk 2241

0.67 kg/m

Stock length	<b>52.41.5100</b>
Cut	<b>52.41. ....</b>

### Information required for ordering

■ LM, LH

# Windows

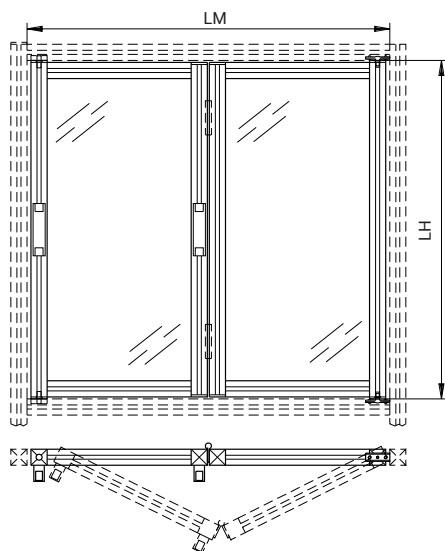
## Folding Windows

Folding windows require a smaller swivel range than casement windows and are therefore a space-saving alternative.

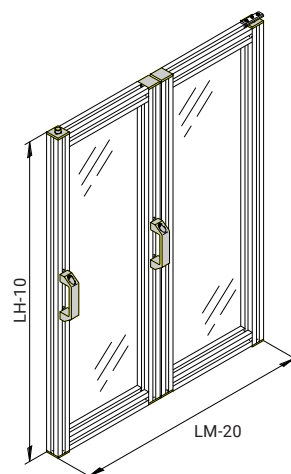


Panelling  
starting on page 232

### Fastening example



Max. LM = 1200 mm  
Max. LH = 1000 mm



Folding window  
Acrylic glass  
**B69.91.004**

Folding window  
Polycarbonate  
**B69.91.005**

### Information required for ordering

■ LM, LH, panelling

### Assemblies (B...):

mk 2040.31 profile, connecting elements, handle, end caps, hinges, panelling (if specified when ordering, otherwise none).

Notes

A large grid of small squares, typically used for taking notes or drawing. The grid is composed of many small squares, creating a uniform pattern across the page.

## Panelling

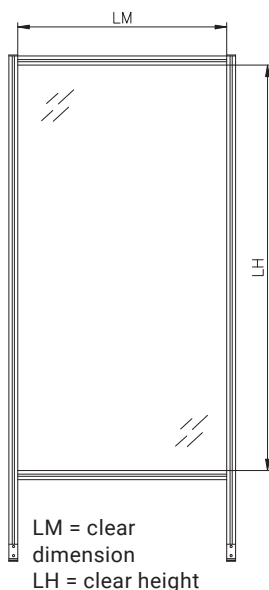
### Information about Panelling

The panelling listed below can be used in partitions, frames and both door and window elements. Fastening accessories for mounting the panelling in a profile frame are presented on the following pages. You will also find order information for the corresponding assemblies, which contain both the panelling and the appropriate fastening accessories. Other panelling, such as safety glass, is available on request.

#### Information required for ordering

- Whole sheet panelling: material item no.
- Cut panelling: item no. for cut section along with width, height and colour (clear, tinted grey or RAL colour)

If the panelling is to be mounting in a profile frame, the width and height will vary according to the mounting method and the panelling, as shown in the table below.



### Cut Lengths by Fastening Method

Fastening method	Width	Height
... with holders	LM	LH
... with panel clamp	LM - 31 mm	LH - 31 mm
... with angles	LM	LH
... with clamping profile	LM + 10 mm	LH + 10 mm
... with fence clip	LM + 20 mm	LH + 20 mm
... with sealing strip	LM + 20 mm	LH + 20 mm

## Closed Panels



### Clear Acrylic Glass

Acrylic glass (PMMA) is a thermoplastic material, also known under the brand name Plexiglas. It exhibits high strength, hardness and transparency. It is more resistant to breakage than traditional glass, but more sensitive to breakage and impacts than polycarbonate.

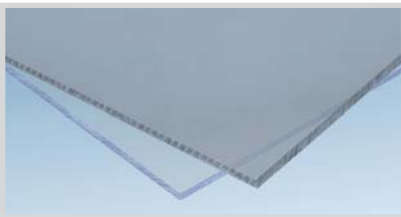
Material item no.	Size [mm]	Thickness [mm]	Cut item no.
K01D211004	2050x3050	4	50.15.6014
K01D211005	2050x3050	5	50.15.6000
K01D211006	2050x3050	6	50.15.6001



### Clear PETG

PETG is a modified, transparent PET plastic that exhibits higher impact resistance than acrylic glass and is easier to work with. PETG offers better optical properties and higher chemical resistance than polycarbonate.

Material item no.	Size [mm]	Thickness [mm]	Cut item no.
K01P211005	2050x3050	5	50.15.6019
K01P211006	2050x3050	6	50.15.6017



### Clear or Grey-Tinted Polycarbonate

Polycarbonate (PC), also known under the brand name Makrolon, is an impact-resistant and rigid thermoplastic material. Its durability and sturdiness makes it the most used type of transparent panelling.

Material item no.	Size [mm]	Thickness [mm]	Cut item no.
<b>Clear</b>			
K01B211004	2050x3050	4	50.15.6009
K01B211005	2050x3050	5	50.15.6002
K01B211006	2050x3050	6	50.15.6003
<b>Tinted grey</b>			
K01B231004	2050x3050	4	50.15.6009
K01B231005	2050x3050	5	50.15.6002



# Panelling

## Closed Panels

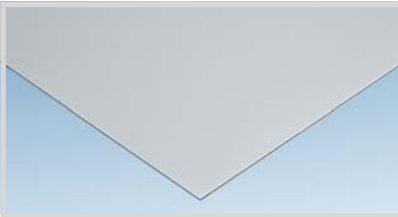


### Silver Anodised Alucobond®

Alucobond® plates consist of two silver-anodised aluminium covering sheets with a black plastic core. This type of panelling provides slight damping and an attractive design.

Material item no.	Size [mm]	Thickness [mm]	Cut item no.
K00316223004	1500x3000	4	50.15.4001
K00316223006	1500x3000	6	50.15.4002

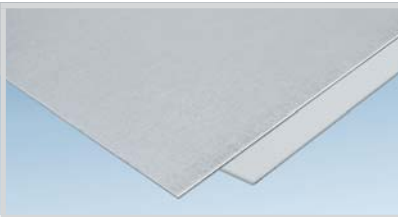
7



### Silver Anodised Aluminium Sheet

Silver anodised aluminium sheet is easy to machine and provides an attractive look that matches the aluminium profiles. It is easy to clean and resists corrosion.

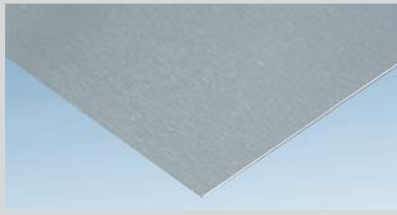
Material item no.	Size [mm]	Thickness [mm]	Cut item no.
K00305321150	1000x2000	1.5	07.30.
K00305321200	1000x2000	2	07.33.
K00305321250	1000x2000	2.5	07.36.



### Galvanised or Painted Steel

Steel is available in a galvanised or painted design, and all cut sections are delivered deburred. Please note that the cut edges are not galvanised. Please specify the RAL colour when ordering painted steel.

Material item no.	Size [mm]	Thickness [mm]	Cut item no.
Galvanised			
K00112121150	1000x2000	1.5	07.28.
Painted			
K00112131150	1000x2000	1.5	07.28.



### Ground Stainless Steel Sheet

Ground V2A stainless steel sheet is resistant to corrosion and suitable for use in food production applications.

Material item no.	Size [mm]	Thickness [mm]	Cut item no.
K00205121150	1000x2000	1.5	07.29.
K00205121200	1000x2000	2	07.32.



### "Duet" Chequer Sheet

Aluminium chequer sheets with a slip-resistant "Duet" chequer pattern are used primarily as stepping surfaces for platforms and steps.

Material item no.	Size [mm]	Thickness [mm]	Cut item no.
K0030641125	1000x2000	2.5/4	07.21.1125
K0030641135	1000x2000	3.5/5	07.21.1135
K0030641150	1000x2000	5/6.5	07.21.1150

# Panelling

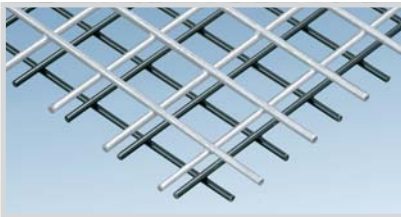
## Grid Panels



### Aluminium or Galvanised Steel Wire Mesh

Wire mesh is suitable for guarding intended to separate areas and is easy to work with. The wire is 4 mm thick, and the mesh size is 40 x 40 mm. Various RAL colours are available on request.

Material item no.	Size [mm]	Thickness [mm]	Cut item no.
Aluminium			
K00315121.40	1000x2000	4	24.00.
K00315122.40	2000x3000	4	24.00.
Galvanised steel			
K00128221.40	1000x2000	4	24.02.
K00128222.40	2000x3000	4	24.02.

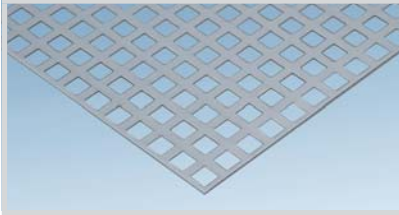


### Welded Steel Grids, Powder-Coated or Galvanised

Welded grids are suitable for guarding intended to separate areas. They are sturdy, easy to work with and exhibit high load capacity. The wire is 4 mm thick, and the mesh size is 40 x 40 mm. You can select from galvanised steel and black powder-coated steel versions.

Material item no.	Size [mm]	Thickness [mm]	Cut item no.
Black powder coated			
K00128321.40	1000x2000	4	24.05.
K00128323.40	1250x2000	4	24.05.
K00128324.40	1500x2000	4	24.05.
Galvanised			
K00128421.40	1000x2000	4	24.06.
K00128423.40	1250x2000	4	24.06.

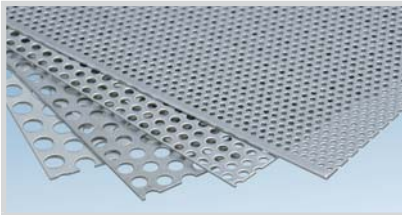
## Perforated Sheets



### "Square Hole" Perforated Sheets

Galvanised steel perforated sheets with square holes serve as a protective guard while also ensuring good ventilation. They can also be used as grates for draining liquids or for hanging tools. 10 x 10 mm square holes, 15 mm spacing (Qg 10-15).

Material item no.	Size [mm]	Thickness [mm]	Cut item no.
<b>Galvanised steel</b>			
K0011312121510	1250x2500	1.5	07.19.2110
K0011312122010	1250x2500	2	07.19.2210
<b>Stainless steel</b>			
K0020612111150	1000x2000	1.5	07.45.0000



### Galvanised "Round Hole" Perforated Sheet

Galvanised steel perforated sheets with round holes in various diameters and offset rows serve as protective guards while also ensuring good ventilation. They can also be used as grates for draining liquids or for hanging tools.

Material item no.	Ro* [mm]	Size [mm]	Thickness [mm]	Cut item no.
K0011311121503	3-5	1250x2500	1.5	07.19.1103
K0011311121505	5-8	1250x2500	1.5	07.19.1105
K0011311121508	8-12	1250x2500	1.5	07.19.1108
K0011311121510	10-15	1250x2500	1.5	07.19.1110
K0011311122003	3-5	1250x2500	2	07.19.1203
K0011311122005	5-8	1250x2500	2	07.19.1205
K0011311122008	8-12	1250x2500	2	07.19.1208
K0011311122010	10-15	1250x2500	2	07.19.1210

\* Offset round holes (Ro) = hole ø - spacing

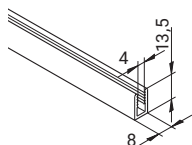
# Panelling

## Edge Profiles

Edge profiles provide seamless closure for panelling. They protect against sharp cut edges and increase stability. They allow you to create simple contours, as shown at left. Simply place the edge profiles on the panelling and the teeth will fix them in place.

Material: Anodised aluminium

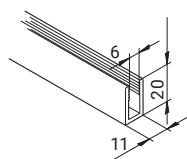
7



Profile mk 2206

0.14 kg/m

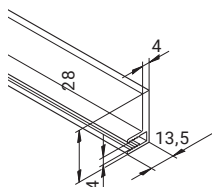
Stock length	<b>52.06.6000</b>
Cut	<b>52.06. ....</b>



Profile mk 2207

0.27 kg/m

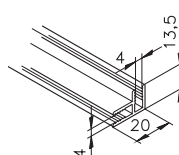
Stock length	<b>52.07.6000</b>
Cut	<b>52.07. ....</b>



Profile mk 2203

0.35 kg/m

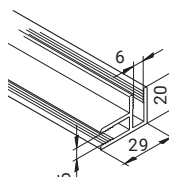
Stock length	<b>52.03.6000</b>
Cut	<b>52.03. ....</b>



Profile mk 2210

0.25 kg/m

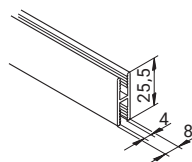
Stock length	<b>52.10.6000</b>
Cut	<b>52.10. ....</b>



Profile mk 2211

0.47 kg/m

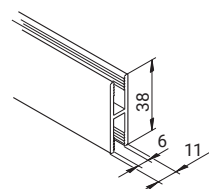
Stock length	<b>52.11.6000</b>
Cut	<b>52.11. ....</b>



Profile mk 2214

0.25 kg/m

Stock length	<b>52.14.6000</b>
Cut	<b>52.14. ....</b>



Profile mk 2215

0.47 kg/m

Stock length	<b>52.15.6000</b>
Cut	<b>52.15. ....</b>

Notes

A large grid of small squares, typically used for taking notes or drawing. The grid is composed of many small squares, creating a uniform pattern across the page.

## Panelling

### Panelling with Fastening Accessories

#### ... with Holder

The holder is used to retrofit panelling into existing structures in accordance with the Machinery Directive. The holder is available in two designs: with a simple flanged button-head screw, or as a captive connection with an undercut flanged button-head screw and a ribbed washer. The holder is closed by snapping on the cover, and the nut is secured so that it cannot be slid out.

Material: Fibre-reinforced plastic

25 40 50 60

Holder with cover

**B34.01.003**

without fastening accessories

**B34.01.004**

with fastening accessories

**B34.01.004A2**

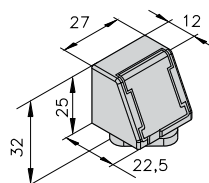
with VA fastening accessories

**B34.01.005**

with captive fastening accessories

**B34.01.005A2**

with captive VA fastening accessories

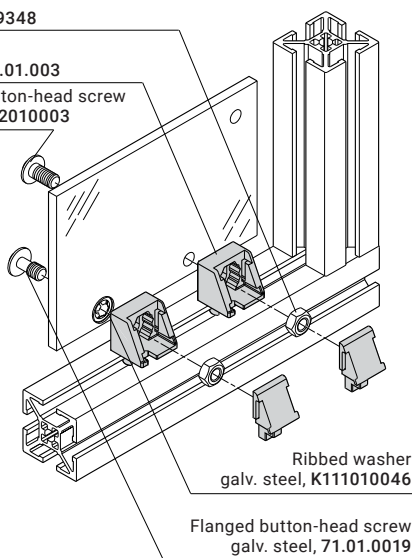


#### Fastening example

Nut M8, D09348

Holder, B34.01.003

Flanged button-head screw  
M8x16, K112010003



LM and LH represent the clear dimensions of the profile frame.

### Polycarbonate

Clear or tinted grey

5 mm	<b>B69.90.206</b>	<b>LM ....</b>	<b>LH ....</b>
6 mm	<b>B69.90.207</b>	<b>LM ....</b>	<b>LH ....</b>

Panelling requires  $\varnothing$  9 mm bores at a distance of 10 to 15 mm from the profile frame.



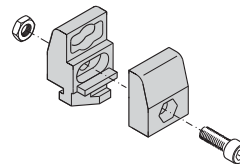
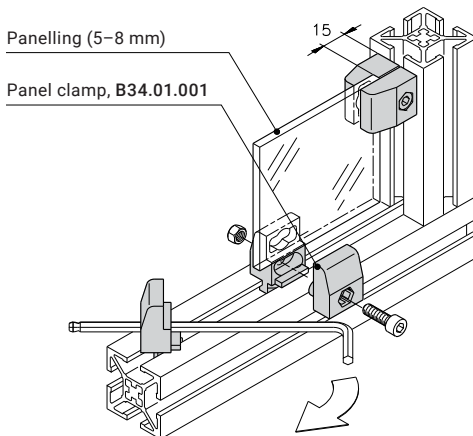
## Panelling with Fastening Accessories

### ... with Panel Clamp

Panel clamps are used to fasten panelling from 5 to 8 mm in thickness. There is a gap of 15 mm all around between profile frame and panelling.

Material: Fibre-reinforced plastic

#### Fastening example



25 40 50 60

Panel clamp 40  
**B34.01.001**

25 40 50 60

Panel clamp 50  
**B34.01.002**

#### Acrylic glass

Clear

5 mm	<b>B69.90.103</b>	<b>LM ....</b>	<b>LH ....</b>
6 mm	<b>B69.90.104</b>	<b>LM ....</b>	<b>LH ....</b>

#### Polycarbonate

Clear or tinted grey

5 mm	<b>B69.90.204</b>	<b>LM ....</b>	<b>LH ....</b>
6 mm	<b>B69.90.205</b>	<b>LM ....</b>	<b>LH ....</b>

LM and LH represent the clear dimensions of the profile frame.



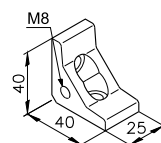
## Panelling

### Panelling with Fastening Accessories

#### ... with Angle

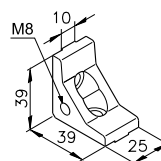
Threads for inserting panelling elements are tapped into the angles' lateral bore. Angles E25 and E25s are the preferred angles. A holder can be used to support larger side lengths. Please specify the RAL colour when ordering painted steel.

Material: Tumbled aluminium



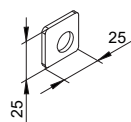
25 40 50 60

Angle, E25, M8  
**82.40.0721**



25 40 50 60

Angle, E25s, M8  
**82.40.0761**



Shim  
**07.01.0005**

Galv. steel, black

#### Steel sheet

Galvanised or painted

1.5 mm	<b>B69.90.310</b>	<b>LM &gt; 300</b>	<b>LH &lt; 300</b>
1.5 mm	<b>B69.90.311</b>	<b>LM ....</b>	<b>LH ....</b>

For side lengths up to 1200 mm

2 mm	<b>B69.90.312</b>	<b>LM ....</b>	<b>LH ....</b>
------	-------------------	----------------	----------------

With additional B34.01.003 holders for side lengths over 1200 mm

#### Fastening example

Nut 1 M8 34.01.0001, galv. steel

Flanged button-head screw  
M8x16, K112010003

Shim 07.01.0005,  
galv. steel, black

Angle with M8 thread

Steel sheet (1.5–2 mm)

Ribbed washer  $\varnothing$  8.4  
K111010017, galv. steel

Cylinder head screw M8x16,  
D0912816

Nut M8 D09348

Holder B34.01.003

Flanged button-head screw M8x12  
K112010002, 10.9 galv.

LM and LH represent the clear dimensions  
of the profile frame.



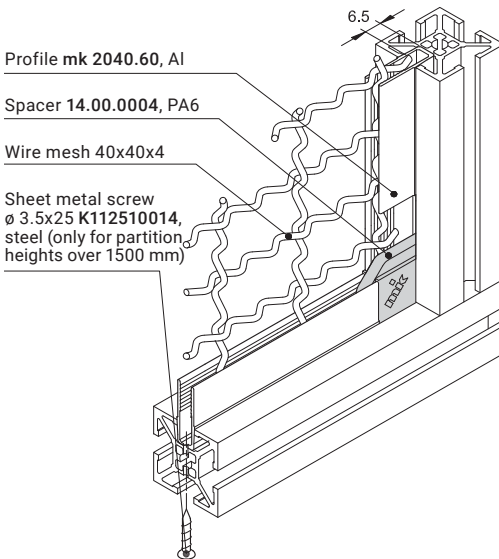
## Panelling with Fastening Accessories

### ... with Clamping Profile

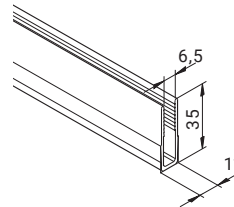
When using the mk 2040.60 profile to fasten wire mesh, an additional screw is needed to secure the profile when the side is longer than 1500 mm; see the fastening example. The spacer eliminates the need for time-consuming mitre cuts.

Material: Anodised aluminium

#### Fastening example



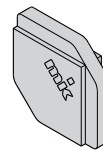
LM and LH represent the clear dimensions of the profile frame.



Profile mk 2040.60

0.30 kg/m

Stock length	<b>54.60.6100</b>
Cut	<b>54.60. ....</b>



Spacer  
**14.00.0004**

PA6 plastic

#### Wire mesh

Aluminium

40x40x4 mm    **B69.90.001**    LM ....    LH ....

#### Wire mesh

Galvanised steel

40x40x4 mm    **B69.90.002**    LM ....    LH ....

## Panelling

### Panelling with Fastening Accessories

#### ... with Fence Clip

Fence clips can be used to fasten welded grids easily, quickly and cheaply. The fence clip is simply hammered into the profile slot, which fixes the protective grate in the frame. The terminal is designed for 4 mm thick welded grids.

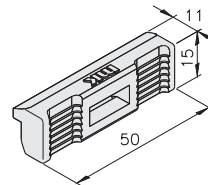
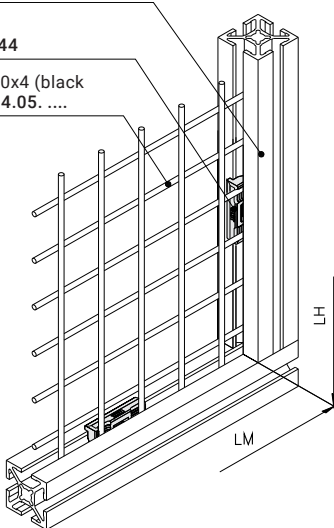
Material: ABS plastic

#### Fastening example

Profile 40x40 mm 54.31. ....

Fence clip mk 2544

Welded grid 40x40x4 (black powder coated) 24.05. ....



25 40 50 60

Fence clip  
mk 2544

#### Welded grid

Black powder coated

40x40x4 mm	24.05.	LM ....	LH ....
complete with fence clips	B69.90.003	LM ....	LH ....

#### Welded grid

Galvanised steel\*

40x40x4 mm	24.06.	LM ....	LH ....
complete with fence clips	B69.90.005	LM ....	LH ....

\*Special RAL paint colours optional

LM and LH represent the clear dimensions of the profile frame.

## Panelling with Fastening Accessories

### ... with Fence Clamp

Fence clamps can be used to easily retrofit welded grids onto existing structures. The "custom solution" variant is frequently used for this purpose. The stability of the welded grid is increased by two horizontal folds in the grid fencing.

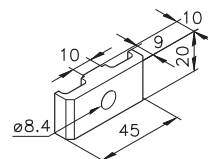
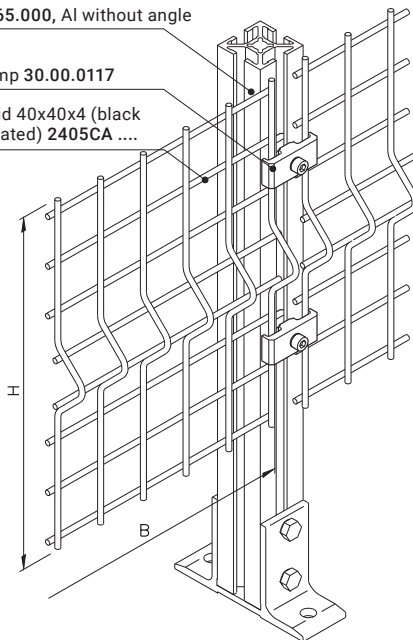
Material: Aluminium

### Fastening example

Post B69.65.000, Al without angle

Fence clamp 30.00.0117

Welded grid 40x40x4 (black powder coated) 2405CA ....



M8x20

25 40 50 60

Fence clamp  
**30.00.0117**

### Welded grid

Black powder coated

40x40x4 mm    **B69.90.004**    B ....    H ....

Dimensions: B = RM - 10 mm, H = max. 1880 mm  
RM = centre post to centre post

## Panelling

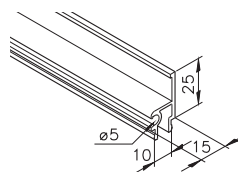
### Panelling with Fastening Accessories

#### ... with Sealing Strip

The combination of mk 2220 profile with mk 3034 sealing strip is a universal holder for panelling from 2 to 8 mm in thickness. All Series 40 and 50 construction profiles are suitable for use as the mounting profile.

#### Information required for ordering

- Item number
- Length in mm



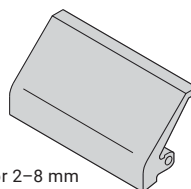
Profile mk 2220

0.32 kg/m

Stock length **52.20.6100**

Cut **52.20. ....**

Anodised aluminium



for 2–8 mm gap

**25 40 50 60**

Sealing strip  
**mk 3034**

Black EPDM rubber

#### Polycarbonate

Clear or tinted grey

4 mm **B69.90.701** LM .... LH ....

6 mm **B69.90.702** LM .... LH ....

#### Acrylic glass

Clear

5 mm **B69.90.710** LM .... LH ....

6 mm **B69.90.711** LM .... LH ....

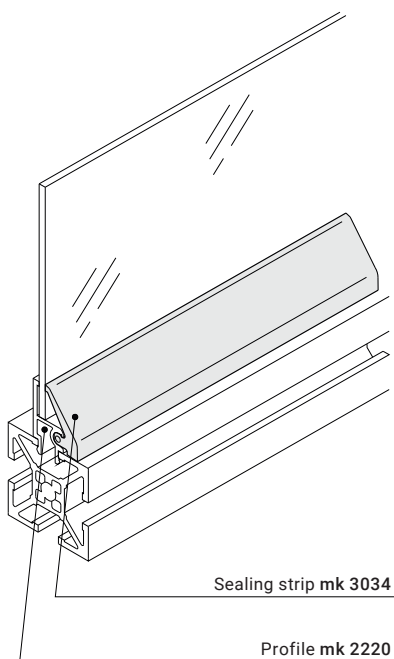
#### Steel sheet

Galvanised or painted

2 mm **B69.90.720** LM .... LH ....

Not permitted for guarding intended to separate areas.

#### Fastening example



LM and LH represent the clear dimensions of the profile frame.



## Panelling with Fastening Accessories

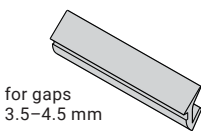
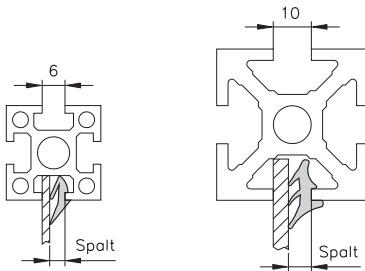
### ... with Sealing Strip

Sealing strips are used to fix panelling from 1.5 to 6.5 mm thick in the profile slot. They seal the profile slot to produce a seamless transition.

#### Information required for ordering

- Item number
- Length in mm

#### Fastening example

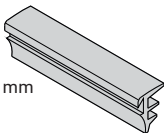


for gaps  
3.5–4.5 mm

25 40 50 60

Sealing strip  
**mk 3027** black

TPE-V rubber

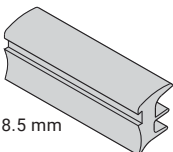


for 4–6 mm  
gap

25 40 50 60

Sealing strip  
**mk 3020** black

TPE-V rubber

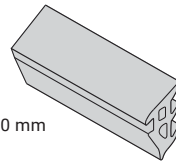


for 7–8.5 mm  
gap

25 40 50 60

Sealing strip  
**mk 3021** black

TPE-V rubber

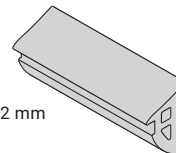


for 10 mm  
gap

25 40 50 60

Sealing strip  
**mk 3023** black

EPDM rubber



for 12 mm  
gap

25 40 50 60

Sealing strip  
**mk 3024** black

EPDM rubber

#### Alucobond®

Silver anodised

4 mm	<b>B69.90.501</b>	<b>LM ...</b>	<b>LH ...</b>
6 mm	<b>B69.90.502</b>	<b>LM ...</b>	<b>LH ...</b>

#### Acrylic glass

Clear

5 mm	<b>B69.90.101</b>	<b>LM ...</b>	<b>LH ...</b>
6 mm	<b>B69.90.102</b>	<b>LM ...</b>	<b>LH ...</b>

#### Polycarbonate

Clear or tinted grey

4 mm	<b>B69.90.201</b>	<b>LM ...</b>	<b>LH ...</b>
5 mm	<b>B69.90.202</b>	<b>LM ...</b>	<b>LH ...</b>
6 mm	<b>B69.90.203</b>	<b>LM ...</b>	<b>LH ...</b>

## Panelling

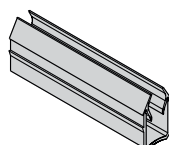
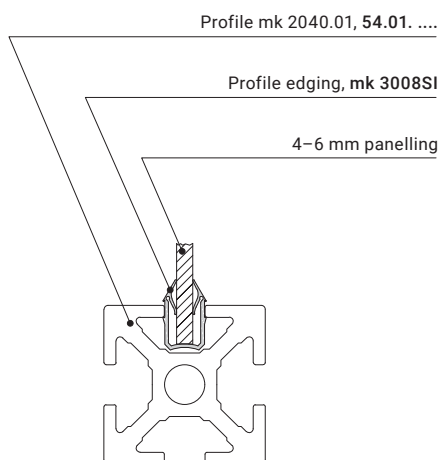
### Panelling with Fastening Accessories

#### ... with Profile Edging

Profile edging is suitable for holding panelling from 4 to 6 mm in thickness. During mounting, the profile edging together with the panelling is pressed into the slot of the profile. Due to the geometry, the side flanks are pressed against the panelling. This produces a seamless transition.

Material: PP plastic

#### Fastening example



for 4-6 mm  
panelling

25 40 50 60

Profile edging  
**mk 3008**

Black

**mk 3008SI**

Silver grey

2000 mm stock length

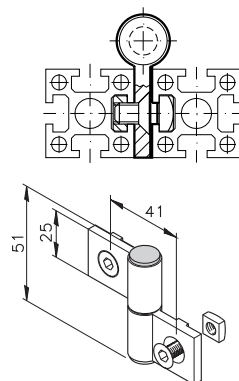
Notes

A large grid of small squares, typically used for graphing or taking notes. The grid is composed of many small squares, creating a fine mesh pattern across the page.



The various hinge leaves allow you to combine profiles from different series. You can, for example, install a door built from Series 25 profiles into a structure built from Series 50. You can use two-leaf or three-leaf hinges, depending on whether you want to be able to unhinge the door later. A slide bushing can be inserted in the three-leaf hinges to allow for frequent opening even under high loads.

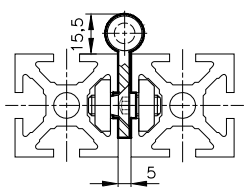
Hinge combination 25-1/25-1



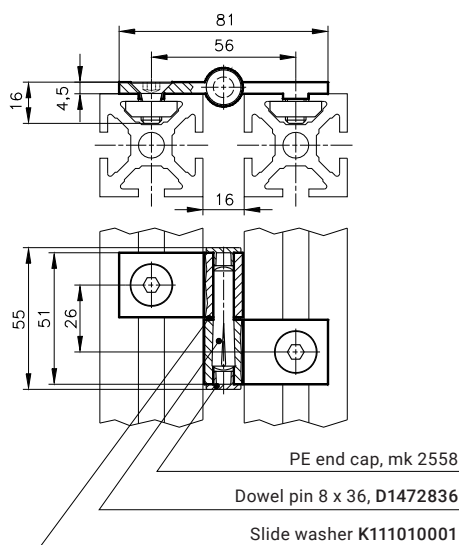
Hinge  
25-1/25-1  
**B46.01.012\***

Hinge  
25-1/40-1  
**B46.01.013\***

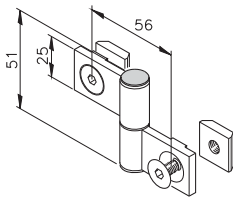
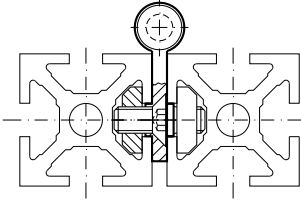
### Example of installation position A



### Example of installation position B

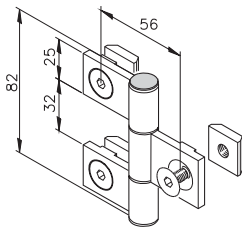


Hinge combination 40-1/40-1  
and 40-1/40-7/40-1



25 40 50 60

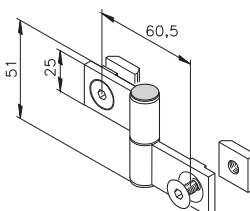
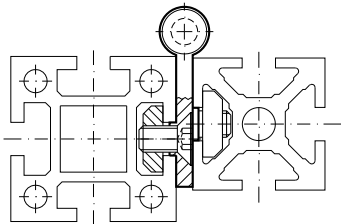
Hinge  
40-1/40-1  
**B46.01.010\***



25 40 50 60

Hinge  
40-1/40-7/40-1  
**B46.01.030\***

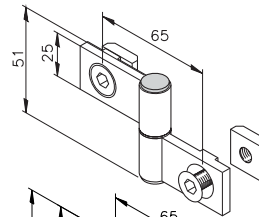
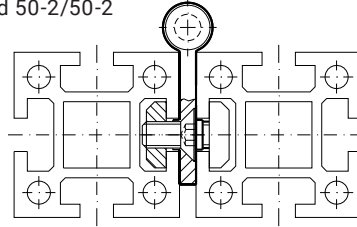
Hinge combination 40-1/50-1



25 40 50 60

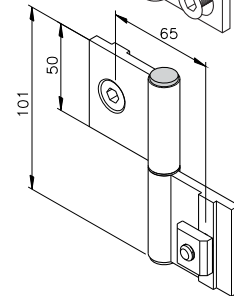
Hinge  
40-1/50-1  
**B46.01.011\***

Hinge combination 50-1/50-1  
and 50-2/50-2



25 40 50 60

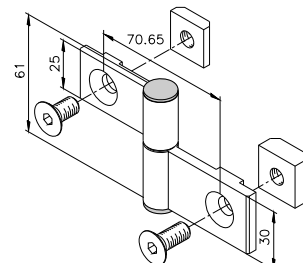
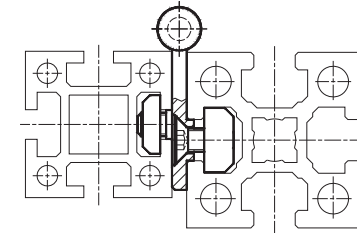
Hinge  
50-1/50-1  
**B46.01.001\***



25 40 50 60

Hinge  
50-2/50-2  
**B46.01.002\***

Hinge combination 50-1/60-1



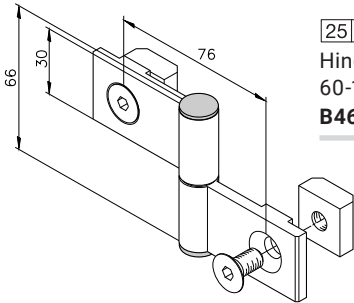
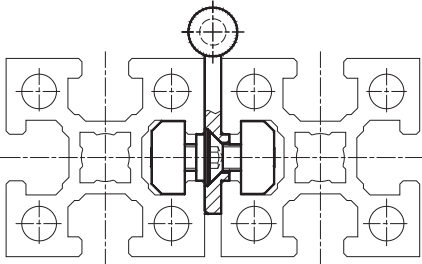
25 40 50 60

Hinge  
50-1/60-1  
**B46.01.064\***

7

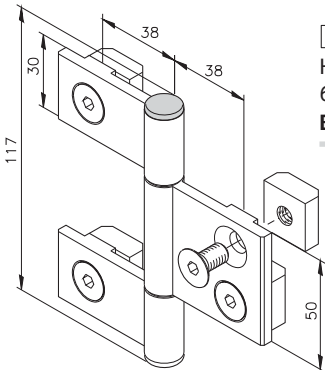
Hinges

Hinge combination 60-1/60-1  
and 60-1/60-7/60-1



25 40 50 60

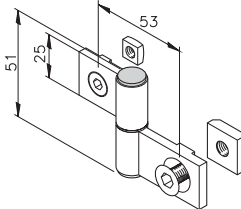
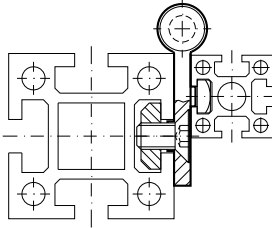
Hinge  
60-1/60-1  
**B46.01.058\***



25 40 50 60

Hinge  
60-1/60-2/60-1  
**B46.01.059\***

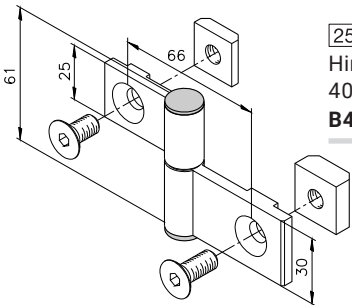
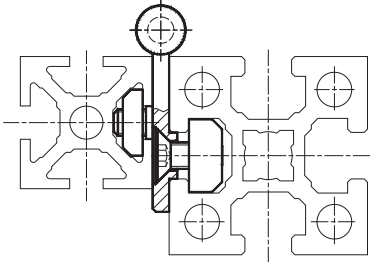
Hinge combination 25-1/50-1



25 40 50 60

Hinge  
25-1/50-1  
**B46.01.014\***

Hinge combination 40-1/60-1



25 40 50 60

Hinge  
40-1/60-1  
**B46.01.063\***



## Hinges

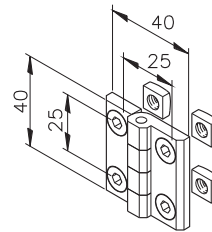
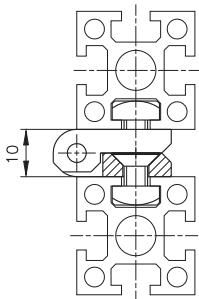
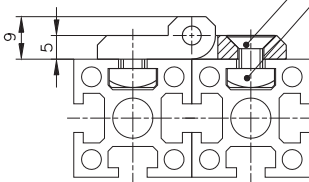
The following hinges have been designed exclusively for mounting on Series 25 profiles for small doors and flaps.

25 40 50 60

### Fastening example

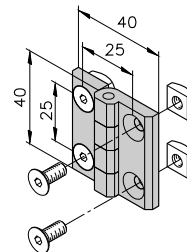
Countersunk head screw M5x10, D7991510

Nut 1 M5, 25.50.0500



Hinge 25  
**B46.01.015\***

Black powder-coated  
die-cast zinc  
hinge leaf



Plastic hinge  
**B46.01.033\***

PA6 plastic  
hinge leaf

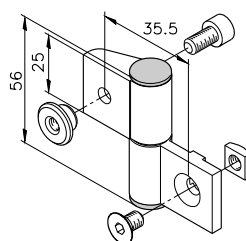
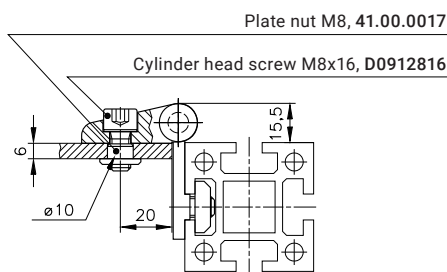
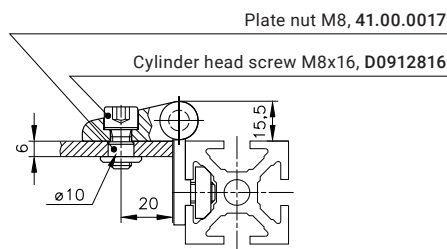
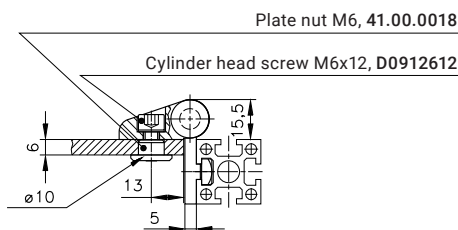
# Door and Window Components

## Hinges for Panelling

The following hinges can be used to attach panelling directly without an additional frame structure.

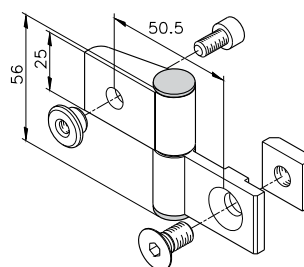
Material: Tumbled aluminium

### Fastening example



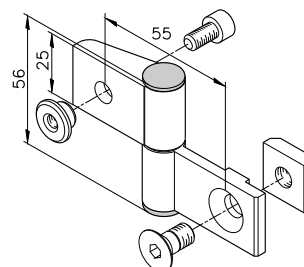
25 40 50 60

Hinge  
25-1/25-3  
**B46.01.044\***



25 40 50 60

Hinge  
40-1/40-3  
**B46.01.050\***



25 40 50 60

Hinge  
50-1/40-3  
**B46.01.055\***

## Ball latch

Material: Brass

25 40 50 60

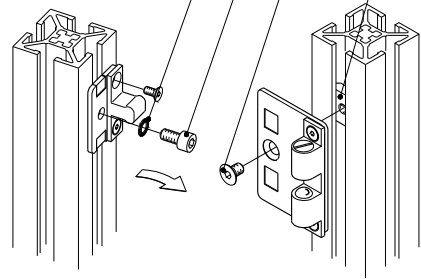
Nut 1, M6 34.02.0008, galv. steel

Countersunk head screw M6x12, D7991612

Cylinder head screw M6x12, D0912612

Ribbed washer ø 6.4

K111010016, galv. steel

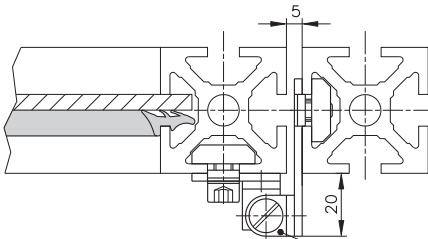


Ball latch

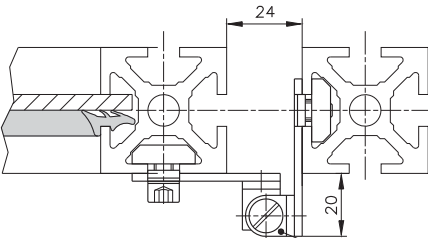
**B68.02.101\*** for 5 mm door gap

**B68.02.102\*** for 24 mm door gap

### Fastening example



Ball latch for 5 mm door gap,  
**B68.02.101**

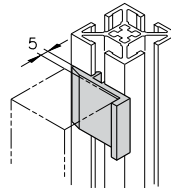


Ball latch for 24 mm door gap,  
**B68.02.102**

## Door stop

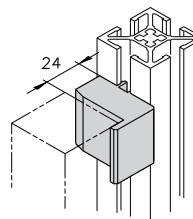
Material: PE-1000 plastic

25 40 50 60



Stop profile  
**22.90.0035**

for 5 mm door gap



Stop profile  
**22.92.0035**

for 24 mm door gap

\*With fastening accessories

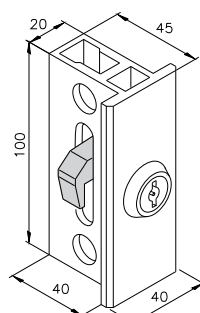
# Door and Window Components

## External Locks

External locks are attached to the side of the profile. The distance between the frame and door must be 24 mm. They can be used for sliding doors and hinged doors.

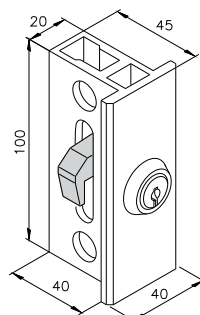
Material: Tumbled aluminium

25 40 50 60



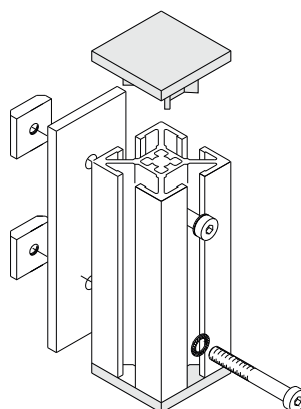
External double-bit lock  
DIN right  
**B68.02.017**

DIN left  
**B68.02.018**



External cylinder lock  
DIN right  
**B68.02.019**

DIN left  
**B68.02.020**

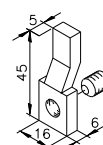


Frame extender  
for sliding door  
**B68.06.005**

With locking piece

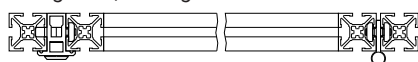
Locking piece  
**B68.02.007**

Galv. steel

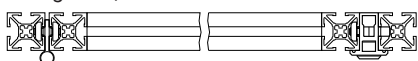


## Fastening example

Swing door, DIN right



Swing door, DIN left



Spacer 14.05.0010, Al

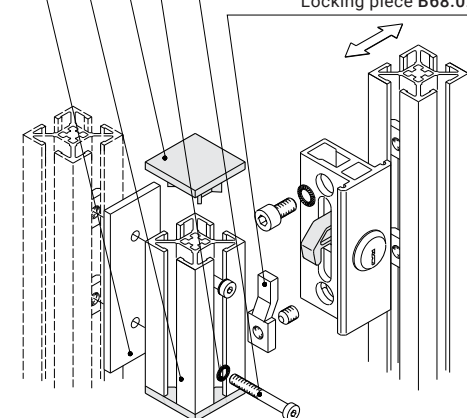
mk 2040.31 profile, L=100 mm 5431BN0100, Al

End cap, mk 2507, PPN

Ribbed washer  $\varnothing 6.4$  K111010016, galv. steel

Cylinder head screw M6x45 D0912645

Locking piece B68.02.007

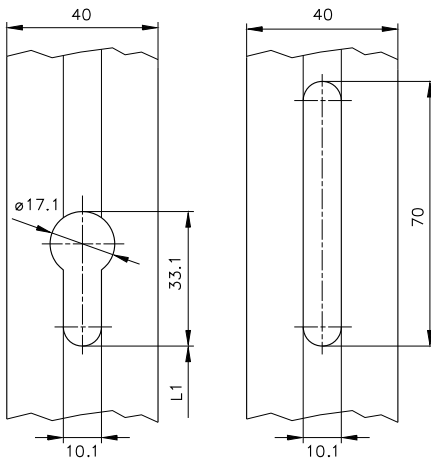




## Internal Locks

Internal locks are cylinder locks that are installed directly in the door profile. The distance between the frame and door must be 5 mm.

### Drilling pattern for cylinder lock



Profile machining for mk 2040.01 profile  
**5401BC ....**

Profile machining for mk 2040.40 profile  
**5440BC ....**

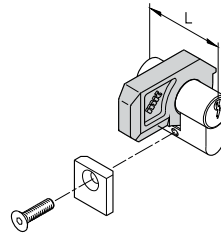
Profile machining for mk 2040.31 profile  
**5431BI ....**

Please specify L1 when ordering

25|40|50|60

Cylinder lock, complete  
**B68.02.051**

L = 42 mm

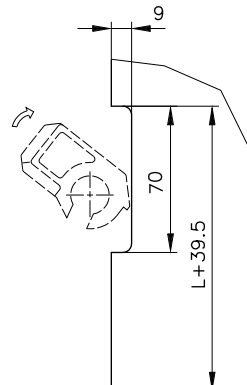


25|40|50|60

Cylinder lock, complete  
**B68.02.052**

L = 52 mm

### Removal of panelling material for the cylinder lock





# Door and Window Components

## Tower Bolts

For locking swing doors at the top frame profile and/or at the floor. A guide angle must be attached to the top frame profile, while a bolt strike plate is used on the floor. When fastening to the floor, you must form-tap an M8 thread into the mk 2040.31 vertical strut.

360 mm standard length.

Material: Tumbled aluminium

25 40 50 60

### Fastening example

Cylinder head screw M8x16 D6912816

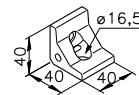
Nut 1 M8 34.01.0001

Guide angle 76.03.0020, Al

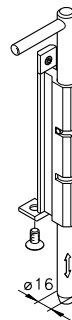
Tower bolt, top  
B68.02.152.0360, Al



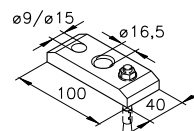
Tower bolt, top  
**B68.02.152.0360**



Guide angle  
**76.03.0020**



Tower bolt, bottom  
**B68.02.151.0360**



Bolt strike plate  
**76.03.0018**

Anchor

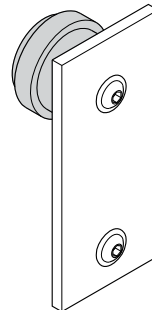
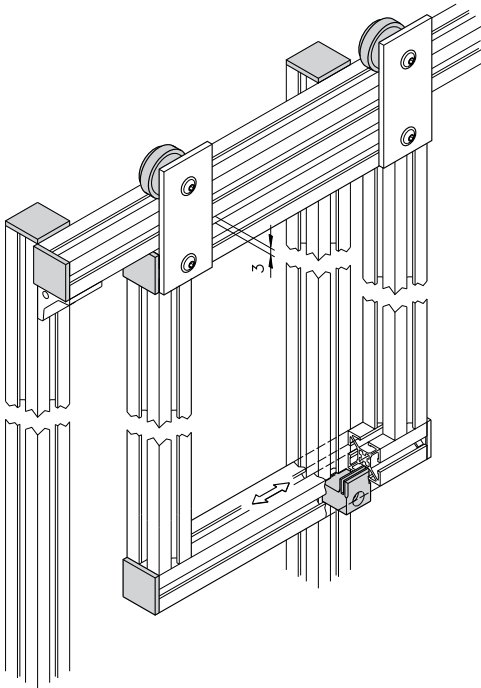


## Roller Unit

This sliding mechanism is a cost-effective and easy-to-install variant. The plastic guide roller is simply guided through a collar in the profile slot. The roller unit assembly consists of a plate, roller, bolt, extra-wide washer, flanged button-head screw and nut.

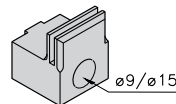
25 40 50 60

### Fastening example



Roller unit  
**B68.11.003**

Roller: POM  
Plate: Tumbled Al



M8x25

Guide piece  
**19.00.0005**

Black plastic

## Safety Accessories

### Hinged Safety Interlock

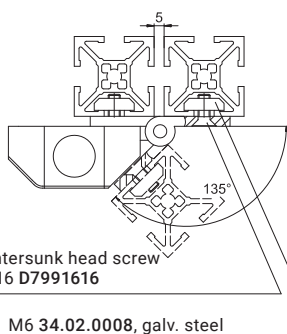
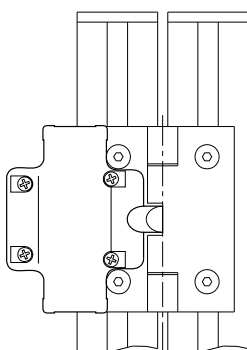
The hinged safety interlock is suitable for swing doors that must be closed to ensure the required operational safety.

#### Properties

- Plastic housing
- Protective earthing
- High resistance to oil and petrol
- Dimensions: 111.5 mm x 92 mm x 36 mm
- Easy installation, especially on 40 mm profiles
- Universal installation in guarding with hinges on the left or right
- Mounting bores for M6 countersunk head screws according to DIN 965
- Two M20x1.5 cable openings

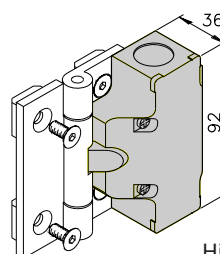


#### Fastening example



Countersunk head screw  
M6x16 D7991616

Nut 1 M6 34.02.0008, galv. steel

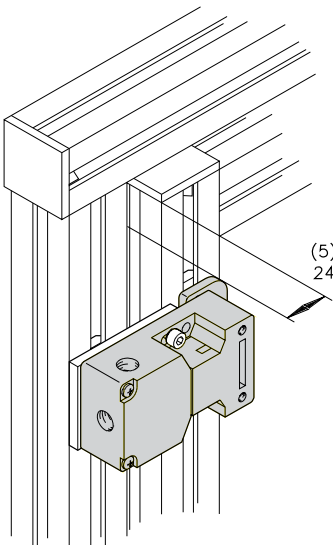


Hinged safety interlock  
TESZ1102/S  
**K370000030**

Max. safety category/ performance level:	Without 2nd switch: max. SC 4, PL "e"
Contacts:	1 normally open, 2 normally closed
Degree of protection:	IP 65
Control voltage:	24 V DC



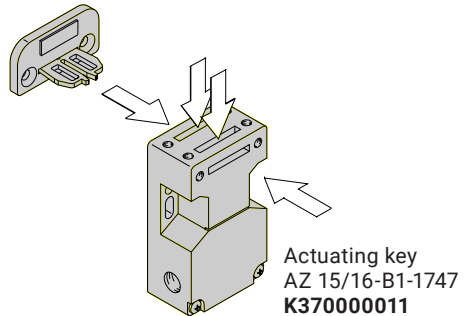
The safety interlock with separate actuating key is suitable for guarding that is laterally adjustable and/or rotatable, and especially for removable guarding that has to be shut in order to ensure the necessary operational safety. The switching element and actuating keys for the safety interlocks are not connected to each other, but are functionally combined or separated when switching. The actuating key is separated from the basic device when the guarding is opened. In doing so, the normally closed contacts are opened and the normally open contacts are closed in the safety interlock.



## Safety interlock with separate actuating key

### Properties

- Plastic housing
- Protective earthing
- Large space for connecting cables
- Dimensions: 52 mm x 90 mm x 30 mm
- Multiple coding
- Long service life
- High contact reliability at low currents
- Oblong bores for adjusting, round bores for fixing
- Three M16x1.5 cable openings



Actuating key  
AZ 15/16-B1-1747  
**K370000011**

Safety interlock  
AZ 16 ZVRK – M16  
**K370000010**

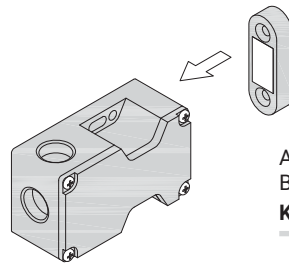
Max. safety category/ performance level:	Without 2nd switch: max. SC 3, PL "d"
Contacts:	1 normally open, 2 normally closed
Degree of protection:	IP 67
Retaining force:	30 N
Control voltage:	24 V DC

## Safety Accessories

### Magnetic safety interlock

#### Properties

- Plastic housing
- Suitable for food production
- Concealed installation possible
- Dimensions: 52 mm x 90 mm x 39 mm
- Long service life
- Resists lateral misalignment
- No mechanical wear
- Resistant to dirt
- Three M20x1.5 cable openings
- Cable connection space
- Max. 6 mm locking distance



Actuating key  
BPS 16 magnet  
**K370000013**

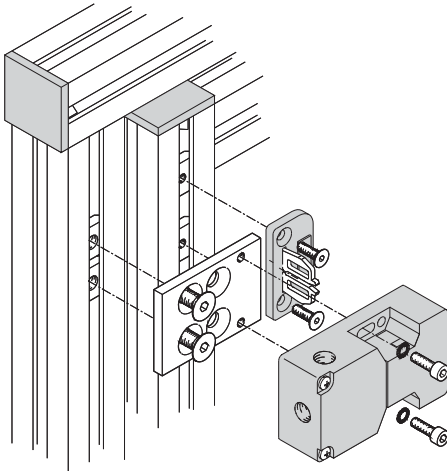
Safety interlock  
BNS 16-12ZV  
**K370000012**

Max. safety category/ performance level:	Without 2nd switch: max. SC 3, PL "d"
Contacts:	1 normally open, 2 normally closed
Degree of protection:	IP 67
Control voltage:	24 V DC

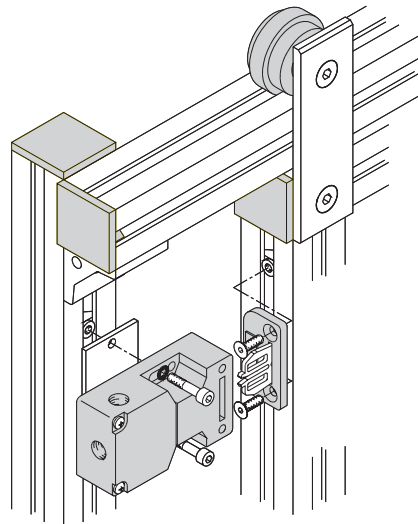
## Fasteners for Safety Interlocks

The fastener set for safety interlocks can be used on swing doors with a gap of 5 to 24 mm.

Material: Tumbled aluminium plate



Safety interlock fastener  
set for swing doors  
**B16.03.001**



Safety interlock fastener  
set for sliding doors  
**B16.03.002**

## Safety Accessories

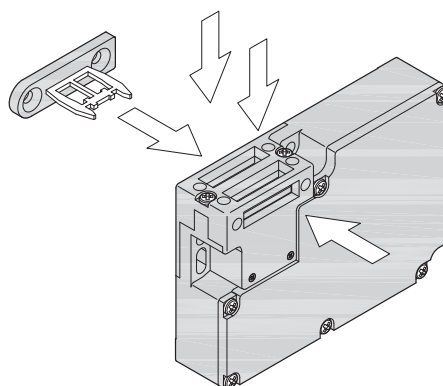
### Mechanical solenoid latches

#### Properties

- Plastic housing
- Protective earthing
- Failsafe locking
- Dimensions: 130 mm x 90 mm x 30 mm
- Six contacts
- Long service life
- Large space for connecting cables
- Manual release
- Four M16x1.5 cable openings
- De-energise to trip

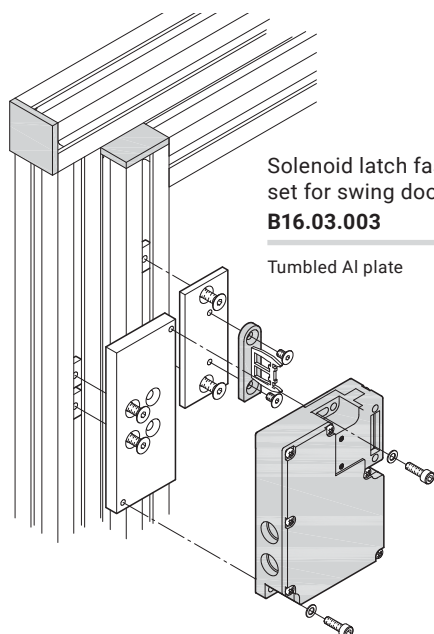
The solenoid latch ensures that sliding, rotating or removable guarding cannot be opened until the hazardous situation, e.g. coasting motion, has ended.

Protective doors that are secured with solenoid latches are generally only opened in exceptional cases. Solenoid latches use electric magnets to activate an interlock, which blocks or triggers the actuating key of the switch.



Actuating key AZM 161-B1  
**K370000021**

Solenoid latch  
AZM 161SK-12/12RK-024  
**K370000020**



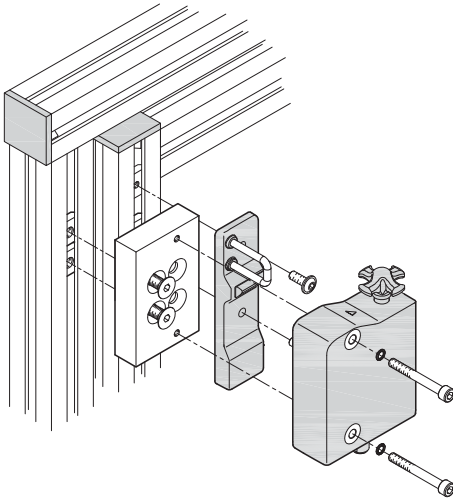
Solenoid latch fastener  
set for swing doors  
**B16.03.003**

Tumbled Al plate

Max. safety category/ performance level:	Without 2nd switch: max. SC 3, PL "d"
Contacts:	2 normally open, 4 normally closed
Degree of protection:	IP 67
Retaining force:	2000 N
Control voltage:	24 V DC



With lock monitoring



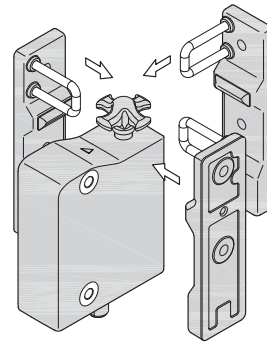
Fastener set for  
solenoid latch  
**B16.03.008**

Tumbled Al plate

## Electronic solenoid latch

### Properties

- Plastic housing
- Three different actuation directions
- Compact design
- Non-contact, coded electronic system
- Three LEDs for displaying operating states
- Resistant to cleaning agents
- Suitable for hinged and sliding doors
- Series circuit
- Manual release
- M12, eight-pin plug connector
- De-energise to trip
- Lock monitoring
- Diagnostics output



Actuating key  
AZ/AZM 300-B1  
**K370000023**

Electronic  
solenoid latch  
AZM 300Z-ST-1P2P  
**K370000022**

Performance level:	max. PL "e"
Contacts:	1 sourcing diagnostic output (Out), 2 sourcing safety outputs Out: guarding closed/ guarding closed and locked
Degree of protection:	IP66, IP67, IP69
Retaining force:	1000 N
Locking force:	25 N/50 N, set using rotating cross
Control voltage:	24 V DC



## Safety Accessories

### Slam Latches

Slam latches are multi-functional door handles for securing and monitoring guarding. They consist of a handle and an interlock module. The PROe lock has additional transponder-coded safety technology according to EN ISO 13849-1 (Cat. 4/PL e).

- Can be installed without machining
- For use with left-hinged and right-hinged doors
- Lockable to prevent unwanted shutdowns
- Secured against disassembly in closed state

Material: Black power-coated die-cast aluminium

#### Fastening example

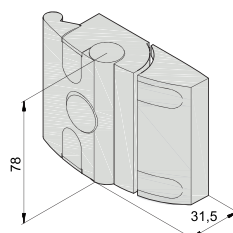
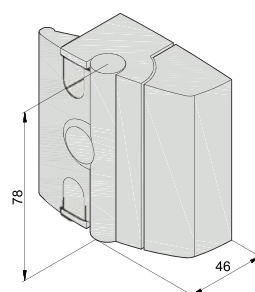
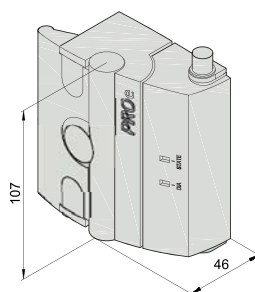
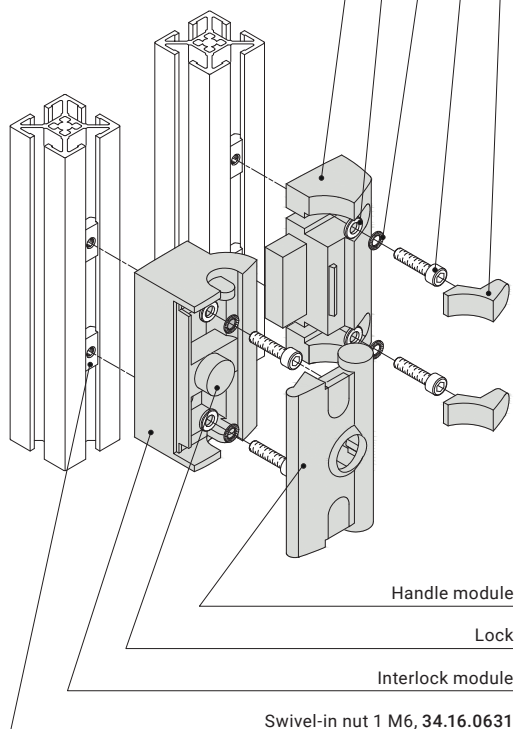
Sealing cap

Cylinder head screw M6x25, D0912625

Ribbed washer  $\varnothing$  6, K111010016

Washer  $\varnothing$  6.4 M6, D01256

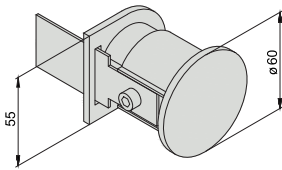
Holder with catch



## Emergency Opener

For rear emergency release of the PROe, PRO and Compact slam latches.

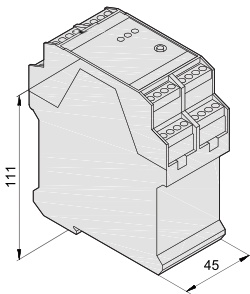
Material: PA 6 plastic, glass fibre reinforced



Emergency opener  
**B68.02.033\***

## AR Evaluation Unit for PROe

This electronic evaluation unit allows you to connect up to 20 PROe slam latches in series.



AR evaluation unit  
**K370000046**

## Connection Accessories for PROe

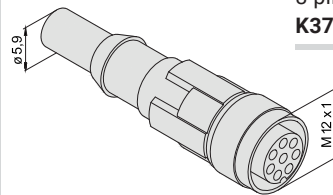
The PROe is connected using an M12 plug connector (8 pin). It is available with a cable length of 5 m, 10 m or 20 m.

Material: PVC

Connection cable,  
8 pin, 5 m  
**K370000043**

Connection cable,  
8 pin, 10 m  
**K370000044**

Connection cable,  
8 pin, 20 m  
**K370000045**



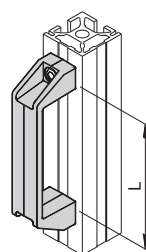
# Handles

## Bracket Handles

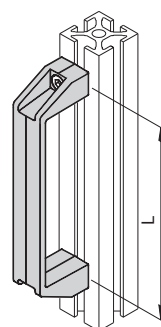
Bracket handles enable better handling of maintenance doors, windows and various covers and flaps.

Material: PA plastic

25 40 50 60

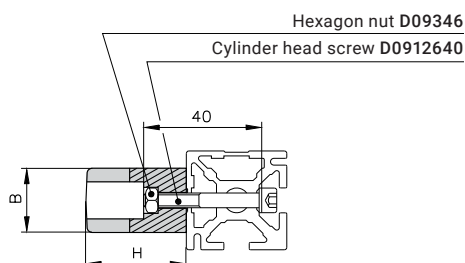


Bracket handle	Length [mm]	Width [mm]	Height [mm]
<b>K110000021</b>	122	26	41
<b>K110000020</b>	152	28	60

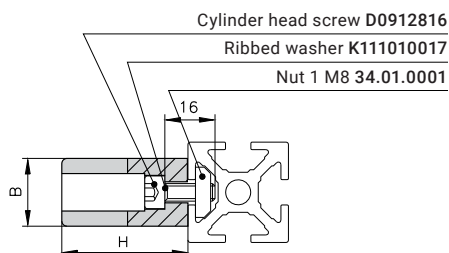


Bracket handle	Length [mm]	Width [mm]	Height [mm]
<b>K110000009</b>	117	26	41
<b>K110000010</b>	179	28	50

Fastening example for **K110000021** and **K110000020**



Fastening example for **K110000009** and **K110000010**

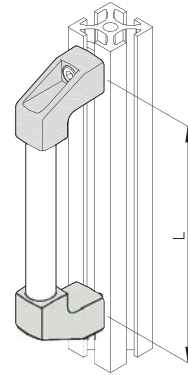
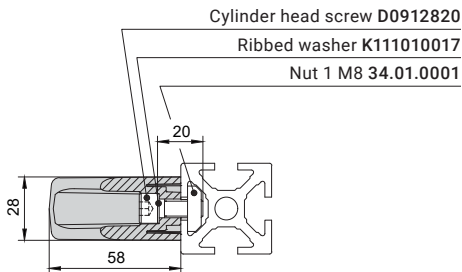


## Bracket Handles

Material: PA6 plastic end pieces,  
anodised aluminium tube

25 40 50 60

Fastening example for **K110000011**



Bracket handle	Length [mm]	Width [mm]	Height [mm]
<b>K110000011</b>	200	28	58
<b>K110000012</b>	300	28	58
<b>K110000013</b>	400	28	58

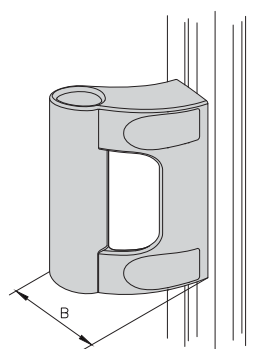
# Handles

## Machine Handles

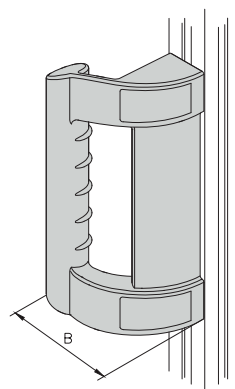
Machine handles enable better handling of maintenance doors, windows and various covers and flaps. They are delivered with caps.

Material: PA plastic

25 40 50 60

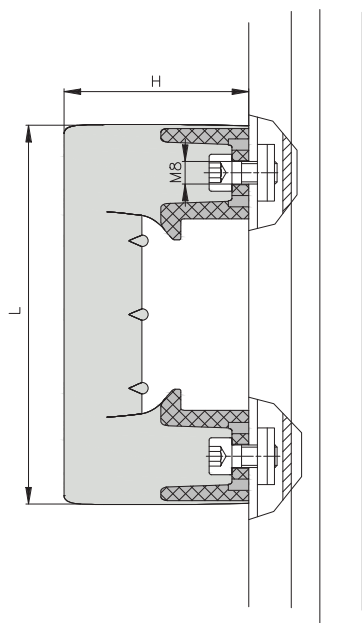


Machine handle	Length [mm]	Width [mm]	Height [mm]
<b>K110000023</b>	135	65	72



Machine handle	Length [mm]	Width [mm]	Height [mm]
<b>K110000025</b>	240	80	100

### Fastening example for K110000023



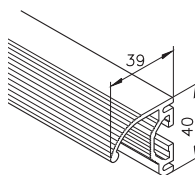
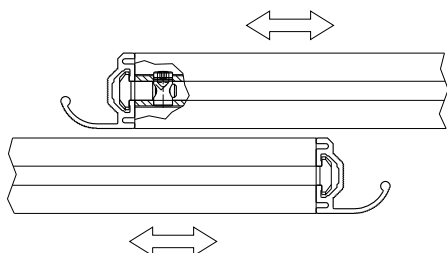
## Profile for Strip Handles

The mk 2244 application profile is used as a strip handle for sliding doors. The ribbing provides the perfect structured surface for easily opening and closing sliding doors along their entire height.

Material: Anodised aluminium



Fastening example



Profile mk 2244

0.87 kg/m

Stock length	<b>52.44.5100</b>
Cut	<b>52.44. ....</b>