

Bar Magnets

The bar magnets are used as **locking device** in access and emergency exit doors e.g. in interlock control systems. Because of their relatively easy installation they are also suited for retrofitting.

All bar magnets meet the requirements of the EN 1154.

In the locking or interlock control systems only the types with feedback contacts may be used.

There exists a large variety of bar magnets: surface type, for flush mounting, double magnet for two-leaved doors (only surface type). Part of this program is shown on the following pages.



Product Line

Voltage	12 or 24 VDC \pm 10 %, adjustable on most types
Power consumption	see technical data of the different types
Holding force	1000 N - 4600 N
Duty cycle	100 %
Operating temperature	-10 °C to +55 °C
Remanence	0 N (due to release pin)
Finish	zinc-plated, special types in stainless steel
IP rating	IP 42, special types also IP 67
Feedback contact	with and without Hall sensor or reed switch

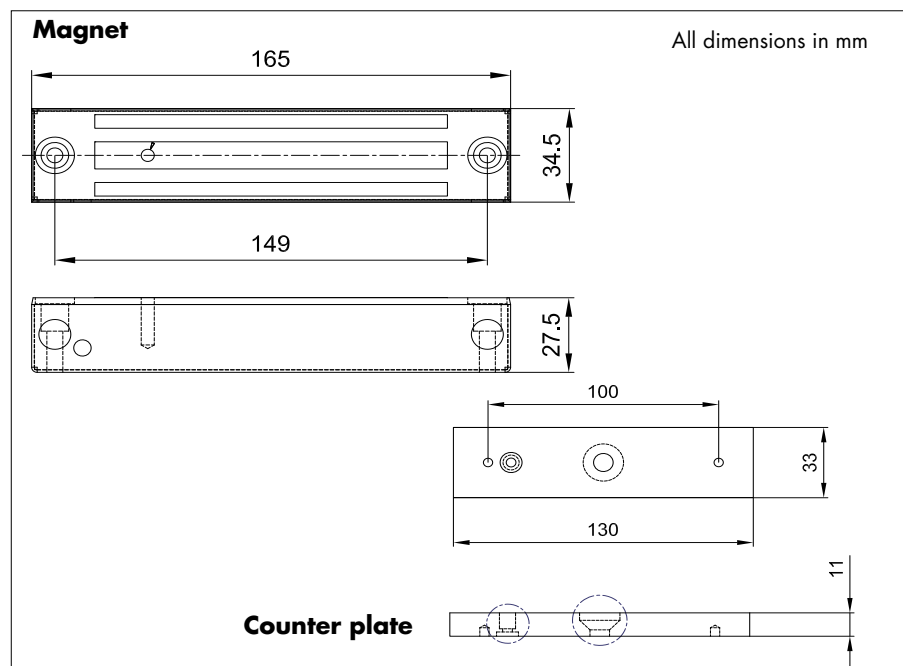


Bar Magnet FH200I
1450 N Holding Force, IP 67, Surface Type

The FH200I bar magnet with protection IP 67 is especially designed for the use in exterior installations or humid surroundings. The casing is made of stainless steel and is waterproof. The counter plate is available either in zinc-plated steel or in stainless steel. It is always furnished with a feedback contact. The FH200I has not been tested for the use on emergency exit doors.

The bar magnet can be connected either to 12 or 24 VDC. The adjustment of the required voltage is done simply by a different connection of the 4 leads of the connection cable. It can be installed on the frame both from the front and from below. Information about mounting accessories you will find on page 08.057.00.

Dimensions FH200I



Technical Data

Voltage	12 VDC ±10 %	24 VDC ±10 %
Power consumption	500 mA	250 mA
Holding force	1450 N	
Duty cycle	100 %	
Operating temperature	-10 °C to +55 °C	
Remanence	0 N (due to release pin)	
Finish magnet	stainless steel	
Material counter plate	zinc-plated steel or stainless steel (1.4021/X20Cr13)	
IP rating	IP 67	
Feedback contact	with reed switch	
Electrical connection	approx. 1 m connection cable	
Cable entry	at the top	

Order Information

Bar magnet FH200I	part no. 040665SET
+ zinc-plated counter plate, 2 mounting brackets for top and front mounting, connection cable	
Bar magnet FH200I	part no. 040664SET
+ stainless steel counter plate, 2 mounting brackets for top + front mounting, connection cable	



Bar Magnet FH300 2000 N Holding Force, Surface Type

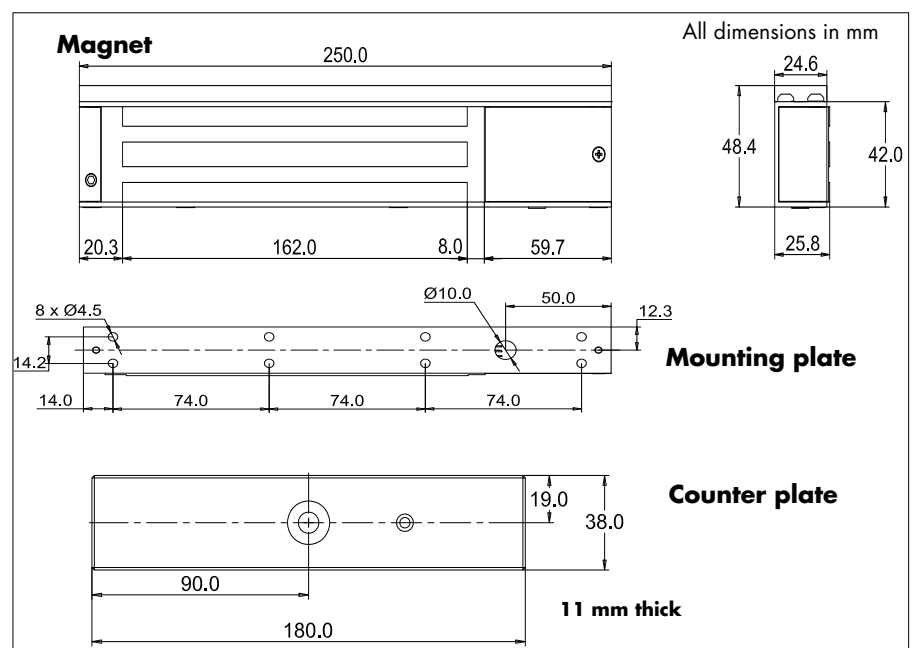
The bar magnet FH300 is available with or without the feedback contact Hall sensor. The type with Hall sensor is designed for the use in door locking/interlock control systems as it provides the required information on the door (locked, unlocked).

The FH300 is also available as double magnet for doors with two leaves.

The connection terminals for the electrical wiring are accessible from the front. The bar magnet can be connected either to 12 or 24 VDC. The required voltage is adjusted on the circuit board with jumpers. The cable entry is at the top. Included is a mounting bracket with which the magnet can be fixed to the door frame from below.

Information about mounting accessories you will find on page 08.057.00.

Dimensions FH300



Technical Data

Voltage	12 VDC ±10 %	24 VDC ±10 %
Power consumption	480 mA	240 mA
Holding force	2000 N	
Duty cycle	100 %	
Operating temperature	-10 °C to +55 °C	
Remanence	0 N (due to release pin)	
Finish	magnet zinc-plated / Casing aluminium	
IP rating	IP 42	
Feedback contact	with or without Hall sensor	
LED indication light	all models with Hall sensor also with LED	
Electrical connection	connecting terminal integrated in the magnet	

Order information

Bar magnet FH300 with counter plate	part no. 040670SET
Bar magnet FH300K with Hall sensor, LED, counter plate	part no. 040671SET
Double magnet FH300-2 with counter plate	part no. 040672SET
Double magnet FH300-2K w.Hall sensor, LED, counter plate	part no. 040673SET

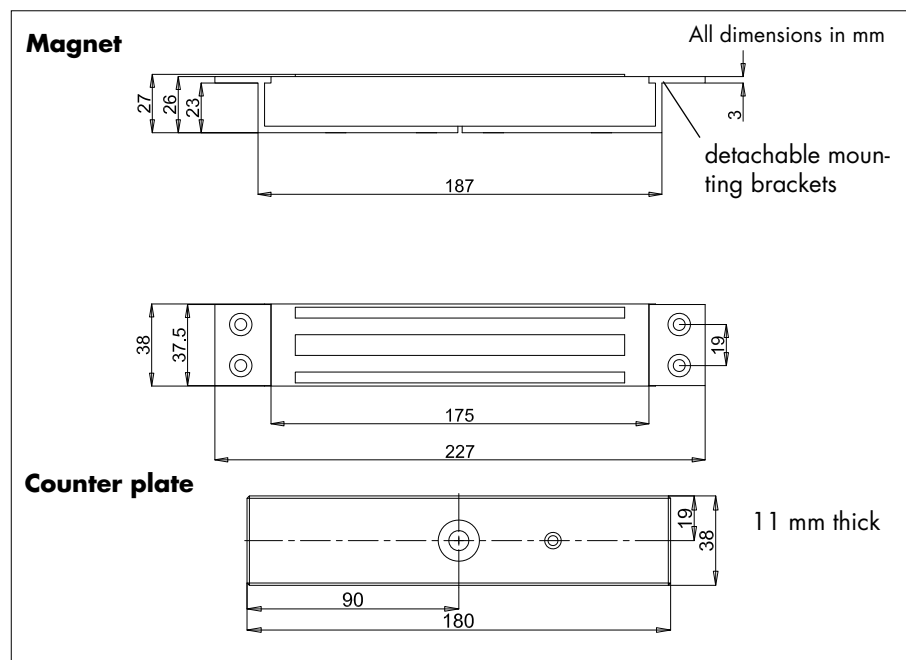


Bar Magnet FH300U
2000 N Holding Force, Flush Mounting

The bar magnet FH300U is available with and without integrated feedback contact. The type with reed switch is designed for the use in door locking/interlock control systems as it provides the required information on the door (locked, unlocked).

It can be connected either to 12 or 24 VDC. The adjustment of the required voltage is done on the connecting board by the adequate positioning of jumpers.

Dimensions FH300U



Technical Data

Voltage	12 VDC ±10 %	24 VDC ±10 %
Power consumption	480 mA	240 mA
Holding force	2000 N	
Duty cycle	100 %	
Operating temperature	-10 °C to +55 °C	
Remanence	0 N (due to release pin)	
Finish	zinc-plated	
IP rating	IP 42	
Feedback contact	with or without reed switch	
LED indication light	none	
Electrical connection	connecting terminal	

Order Information

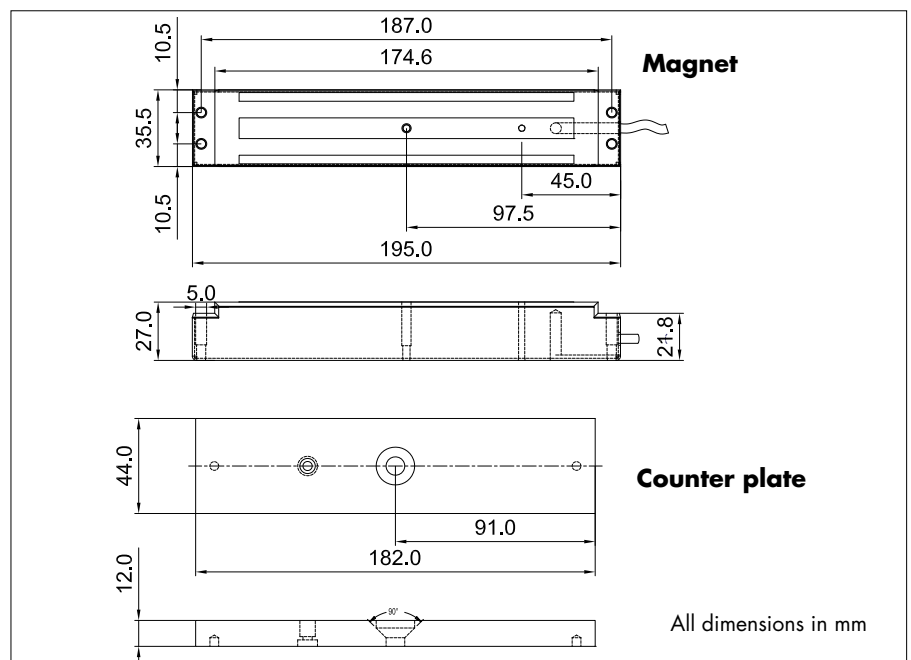
Bar magnet FH300U for flush mounting with counter plate	part no. 040282SET
Bar magnet FH300UK for flush mounting with reed switch and counter plate	part no. 040281SET



Bar Magnet FH300U35 2000 N Holding Force, Flush Mounting

The bar magnet FH300U35 is available with and without integrated feedback contact. The type with reed switch is designed for the use in door locking/interlock control systems as it provides the required information on the door (locked, unlocked). It can be connected either to 12 or 24 VDC. The adjustment of the required voltage is done on the connecting board by the adequate positioning of jumpers. The casing of the FH300U35 is made of stainless steel, the counter plate of zinc-plated steel. Included are two separate mounting plates and two attachment screws of different length. With these screws you may fix the magnet from the rear. The magnet is also available being integrated in an aluminium profile (see page 08.055.00).

Dimensions FH300U35



Technical Data

Voltage	12 VDC ±10 %	24 VDC ±10 %
Power consumption	480 mA	240 mA
Holding force	2000 N	
Duty cycle	100 %	
Operating temperature	-10 °C to +55 °C	
Remanence	0 N (due to release pin)	
Finish	magnet stainless steel / Counter plate zinc-plated	
IP rating	IP 42	
Feedback contact	with or without reed switch	
LED indication light	none	
Electrical connection	connecting board	

Order Information

Bar magnet FH300U35 for flush mounting with counter plate	part no. 040283SET
Bar magnet FH300U35K for flush mounting with reed switch and counter plate	part no. 040284SET



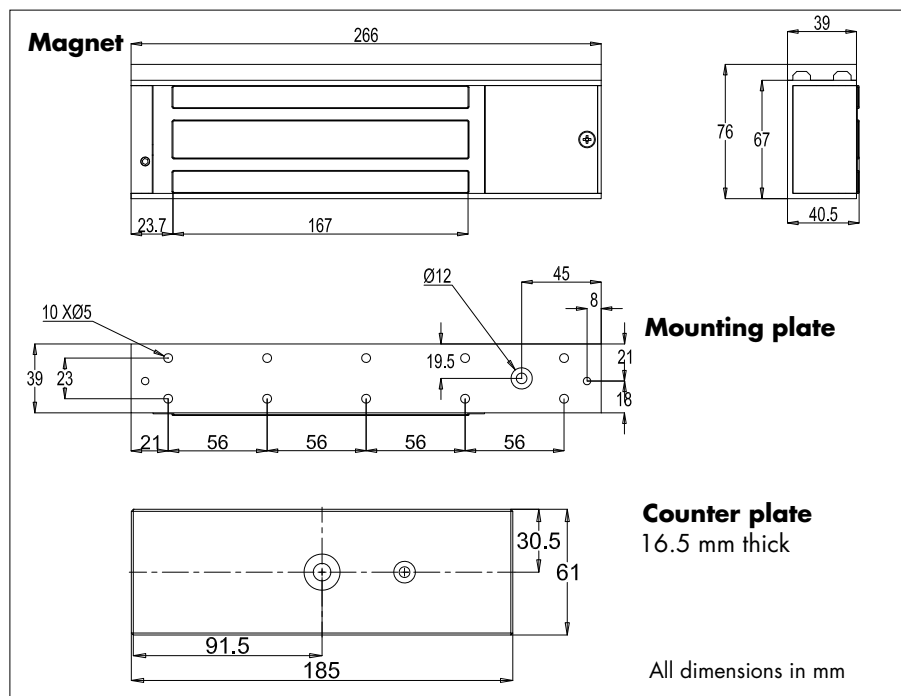
**Bar Magnet FH550
4300 N Holding Force, Surface Mounting**

The bar magnet FH550 is available with and without integrated feedback contact (Hall sensor). The type with Hall sensor is designed for the use in door locking/interlock control systems as it provides the required information on the door (locked, unlocked). It is also available as double magnet for doors with two leaves.

The connecting terminal for the electrical wiring is accessible from the front. The bar magnet can be connected either to 12 or 24 VDC. The required voltage is adjusted on the connecting board with jumpers. Included is a mounting bracket with which the magnet can be fixed to the door frame from below.

Information about mounting accessories you will find on page 08.057.00.

Dimensions FH550

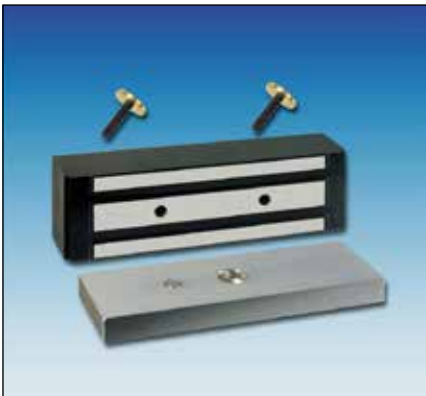


Technical Data

Voltage	12 VDC ±10 %	24 VDC ±10 %
Power consumption	480 mA	240 mA
Holding force	4300 N	
Duty cycle	100 %	
Operating temperature	-10 °C to +55 °C	
Remanence	0 N (due to release pin)	
Finish	magnet zinc-plated / surface casing aluminium	
IP rating	IP 42	
Feedback contact	with and without Hall sensor	
LED indication light	all types with Hall sensor with LED	
Electrical connection	connecting terminals integrated in the magnet	

Order Information

Bar magnet FH550 for surface mounting with counter plate	part no. 040277SET
Bar magnet FH550K with Hall sensor, LED, counter plate	part no. 040285SET
Double magnet FH550-2 with counter plate	part no. 040278SET
Double magnet FH550-2K Hall sensor, LED, counter plate	part no. 040279SET



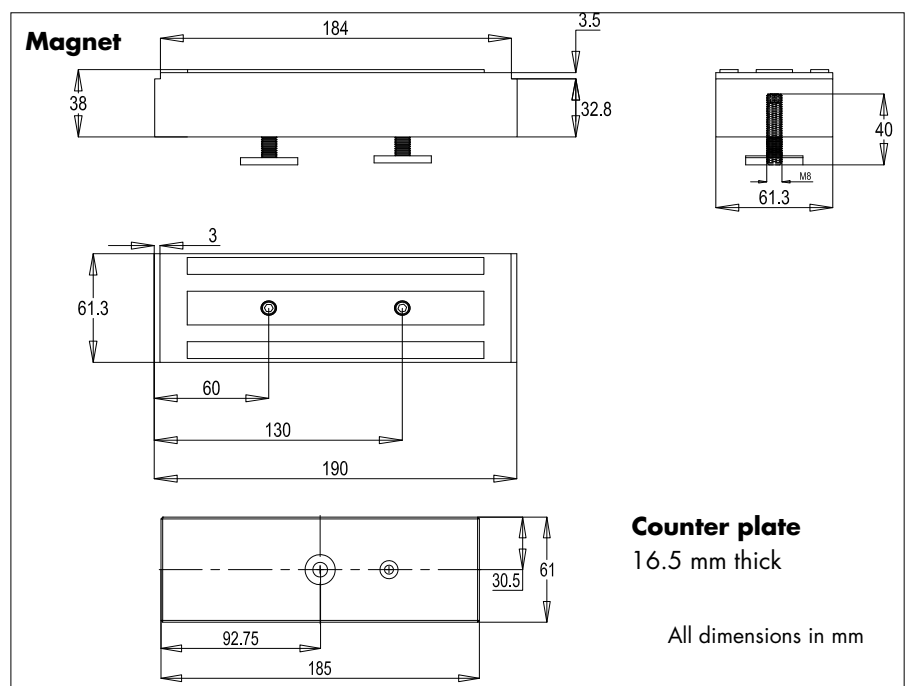
Bar Magnet FH550U 3600 N Holding Force, Flush Mounting

The bar magnet FH550U is available with and without integrated feedback contact. The type with reed switch is designed for the use in door locking/interlock control systems as it provides the required information on the door (locked, unlocked).

The bar magnet can be connected either to 12 or 24 VDC. The required voltage is adjusted on the connecting board with jumpers.

The F550U is being fixed from behind using two attachment screws.

Dimensions FH550U

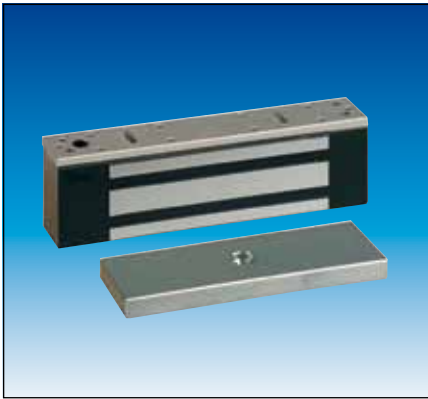


Technical Data

Voltage	12 VDC ±10 %	24 VDC ±10 %
Power consumption	480 mA	240 mA
Holding force	3600 N	
Duty cycle	100 %	
Operating temperature	-10 °C to +55 °C	
Remanence	0 N (due to release pin)	
Finish	zinc-plated	
IP rating	IP 42	
Feedback contact	with or without reed switch	
LED indication light	none	
Electrical connection	connecting board	

Order Information

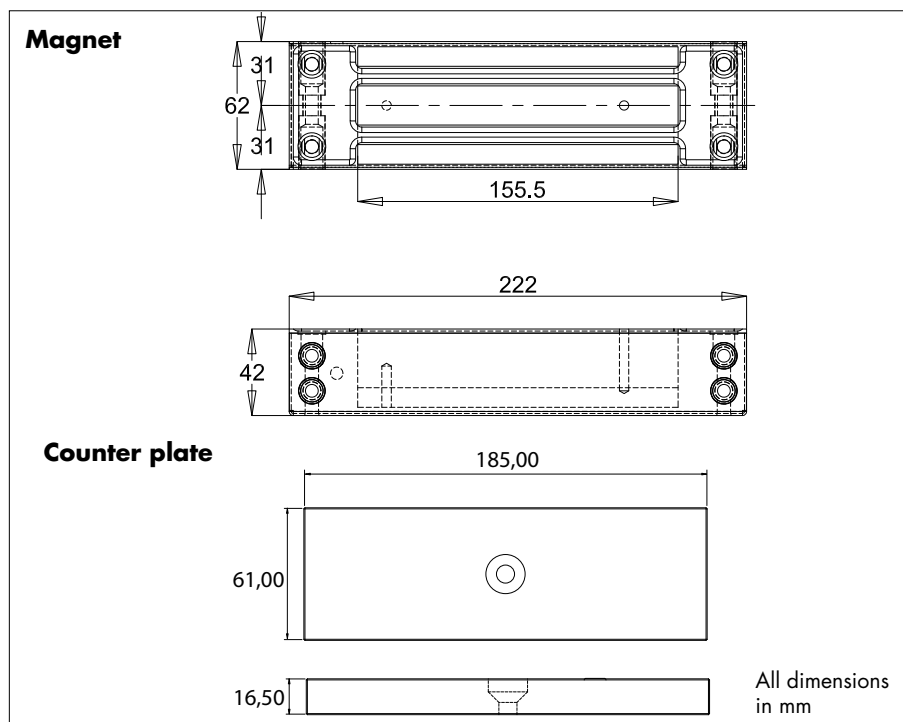
Bar magnet FH550U for flush mounting with counter plate	part no. 040678SET
Bar magnet FH550UK for flush mounting with reed switch and counter plate	part no. 040679SET



Bar Magnet FH750I
4600 N Holding Force, IP 67, Surface Mounting

The FH750I bar magnet with protection IP 67 is especially designed for the use in exterior installations or humid surroundings. The casing is made of stainless steel and is waterproof. The FH750I is always furnished with a feedback contact (reed switch). It can be connected either to 12 or 24 VDC. The adjustment of the required voltage is done by a different connection of the leads of the connection cable. It can be installed on the frame both from the front and from below. Information about mounting accessories you will find on page 08.057.00.

Dimensions FH750I

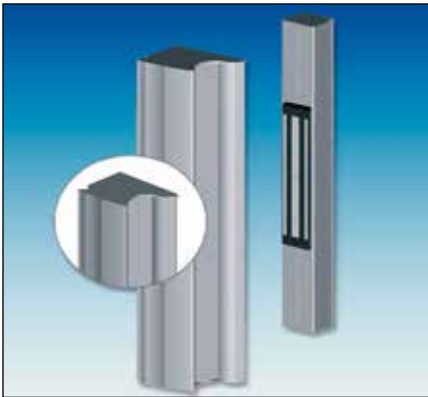


Technical Data

Voltage	12 VDC ± 10 %	24 VDC ± 10 %
Power consumption	500 mA	250 mA
Holding force	4600 N	
Duty cycle	100 %	
Operating temperature	-10 °C to +55 °C	
Remanence	0 N (due to release pin)	
Finish	stainless steel	
IP rating	IP 67	
Feedback contact	with reed switch	
Electrical connection	approx. 1 m connecting cable	
Cable entry	at the top	

Order Information

Bar magnet FH750I	part no. 040680SET
with counter plate, 2 mounting brackets for top + front mounting, connecting cable	

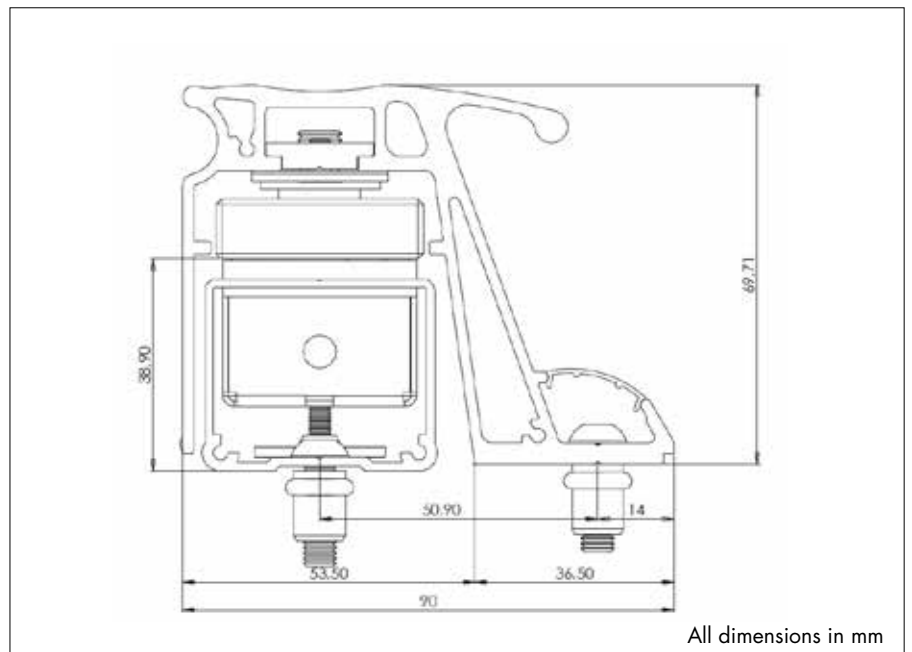


Bar Magnet Device FH300AS400/FH300AS600 2000/4000 N, for Mounting as Door Handle

The bar magnet FH300U35 for flush mounting (see page 08.051.00) is also available integrated in a two-parts aluminium profile ready for mounting. The magnet itself is completely pre-assembled in the profile to be fixed to the door frame. The adjustable counter plate is integrated in the second profile. This profile serves as door handle and is fixed to the door. The installation is simple and doesn't require much time. No screws are visible. On demand, especially for the installation in cleanrooms, we also supply lacquered aluminium profiles.

By default these profiles are available in the following lengths: 400 mm (1 magnet/counter plate integrated), 600 mm (2 magnets/counter plates integrated) and 2200 mm (2 magnets/counter plates).

Dimensions Bar Magnet Device FH300AS



Components

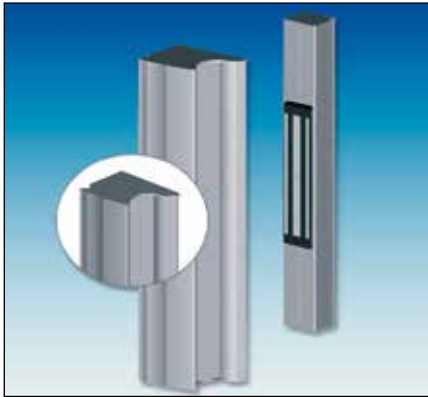
Aluminium profile with 1 or 2 integrated bar magnets FH300U35

Aluminium profile with handle with 1 or 2 integrated counter plates for FH300U35

Fixing screws

Technical Data

Voltage	12 VDC ± 10 %	24 VDC ± 10 %
Power consumption FH300AS400	480 mA	240 mA
FH300AS600/2200	960 mA	480 mA
Holding force FH300AS400	2000 N	
Holding force FH300AS600/2200	4000 N	
Duty cycle	100 %	
Operating temperature	-10 °C to +55 °C	
Remanence	0 N (due to release pin)	
Finish	magnet stainless steel (V2a), counter plate zinc-plated	
IP rating	IP 42	
Feedback contact	with reed switch	
LED indication light	none	
Electrical connection	connecting board, jumper for choosing 12/24 VDC	
Finishing of aluminium profile	satined	



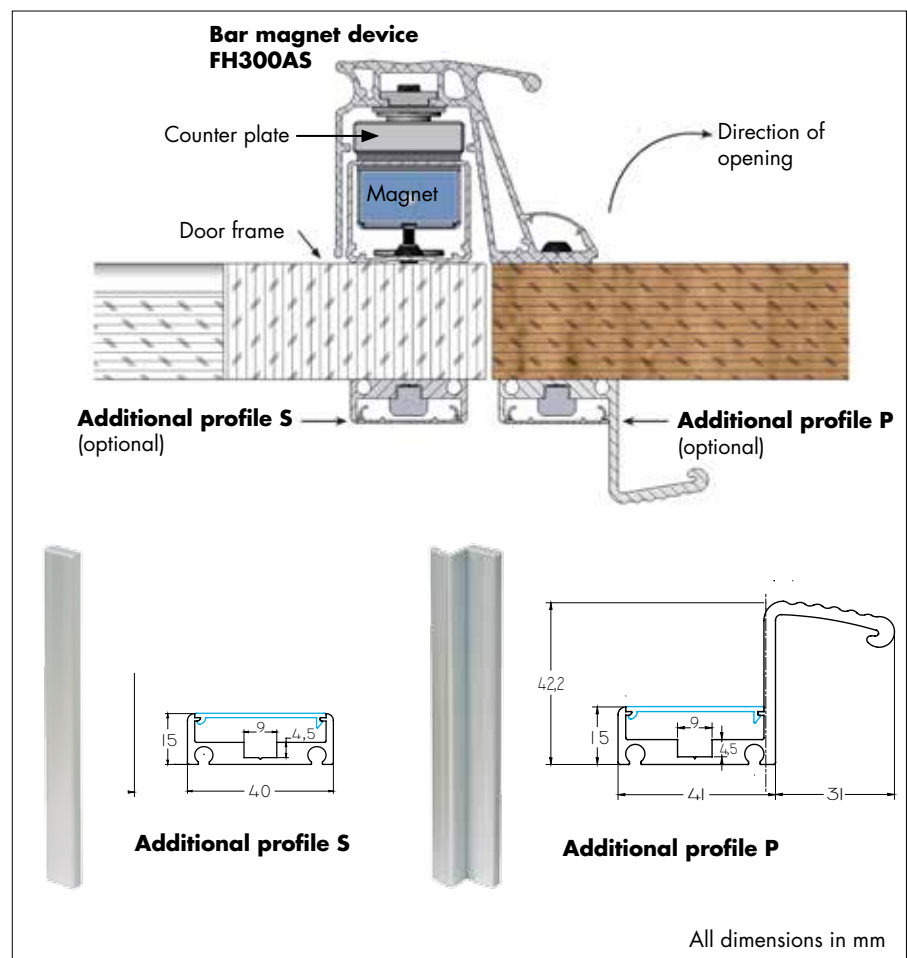
**Bar Magnet Device FH300AS400/FH300AS600
2000/4000 N, as Door Handle, cont.**

To complete the bar magnet device FH300AS on the opposite side of the door we offer the additional profiles P and S. They are particularly used when the aluminium profile AS with the integrated counter plate is to be fixed to the door with through bolts. There are available two types of this additional profile:

- Type S: it is merely a counter plate and serves as cover profile.
- Type P: this profile serves as counter plate and as door handle.

These profiles are available in 400 mm, 600 mm and 2500 mm length. They have a satin finishing, but on demand, especially for the installation in clean rooms, we also supply lacquered aluminium profiles.

**Dimensions
Aluminium Profile for
Opposite Side of Door**



Order Information

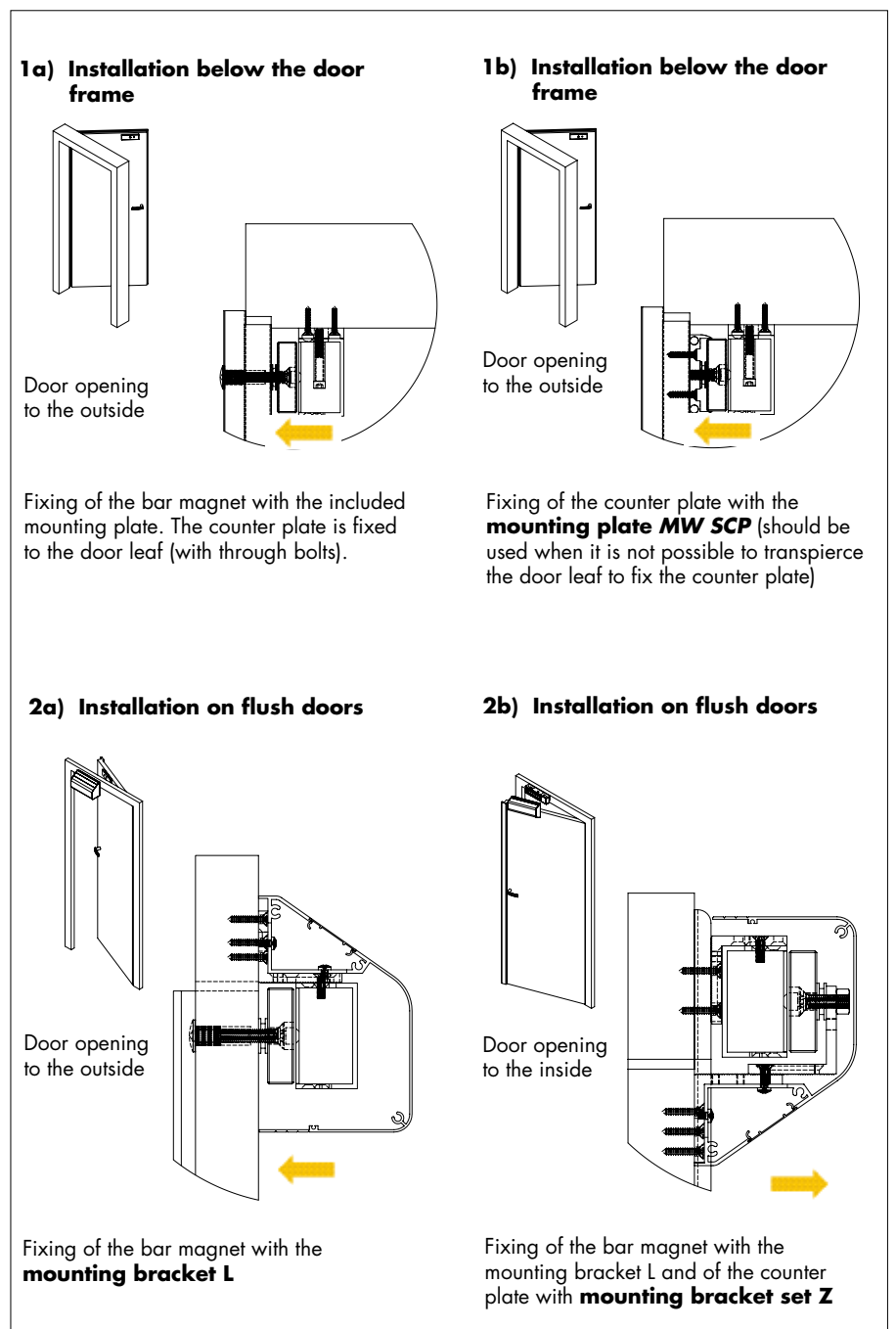
Bar magnet device FH300AS400	part no. 041720
Bar magnet device FH300AS600	part no. 041710
Bar magnet device FH300AS2200	part no. 041700
Additional profile S400	part no. 041724
Additional profile S600	part no. 041714
Additional profile S2500	part no. 041704
Additional profile P400	part no. 041722
Additional profile P600	part no. 041712
Additional profile P2500	part no. 041702

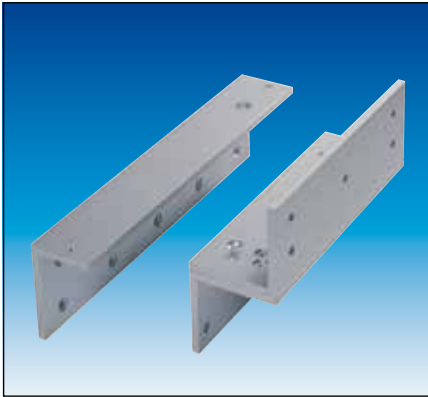


Accessories - Mounting Brackets for Surface Mounting

For the installation of the bar magnets we supply different mounting brackets. If any and which type of mounting bracket is needed, depends on the kind of door and where the bar magnet shall be placed.

Below you will find illustrations of the most frequent ways of installation.





Accessories - Mounting Brackets for Surface Mounting

Below you will find the mounting brackets for the different installation possibilities shown on the previous page. The number in the name indicates for which type of surface bar magnet the mounting bracket is intended, e.g. mounting set MW 550/750SCP: for surface mounting bar magnets FH550 and FH750.

Some of the brackets are suitable for the FH300 as well as for the FH550 (e.g. mounting bracket set MW300/550Z).

Dimensions

Mounting bracket L
Dimensions MW300L
part no. 040674

Dimensions MW550L
part no. 040286

Mounting bracket MW200L, 750L and those for double magnets on demand

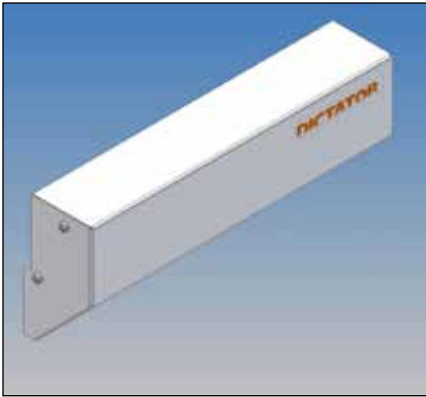
Mounting bracket set Z
Dimensions MW300/550Z
part no. 040675

Mounting set MW SCP for the counter plate
Dimensions MW300SCP
part no. 040677

Dimensions MW550/750SCP
part no. 040289

Order Information

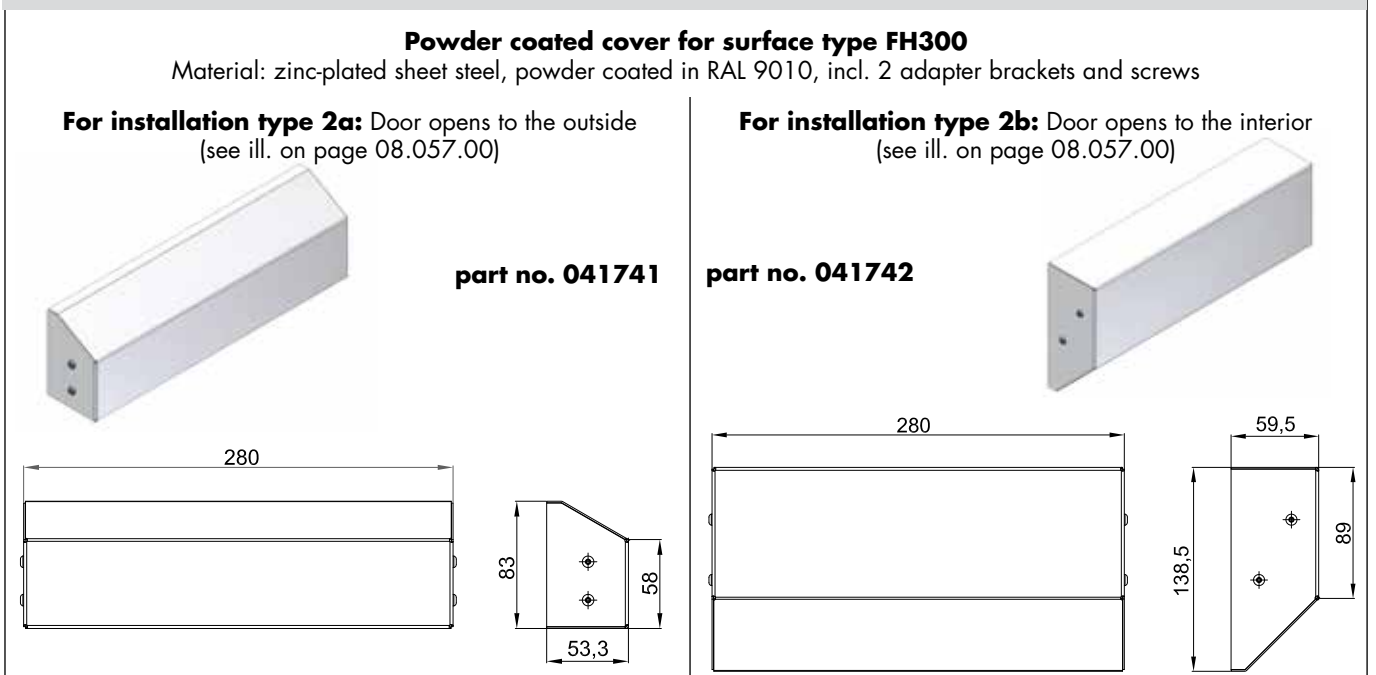
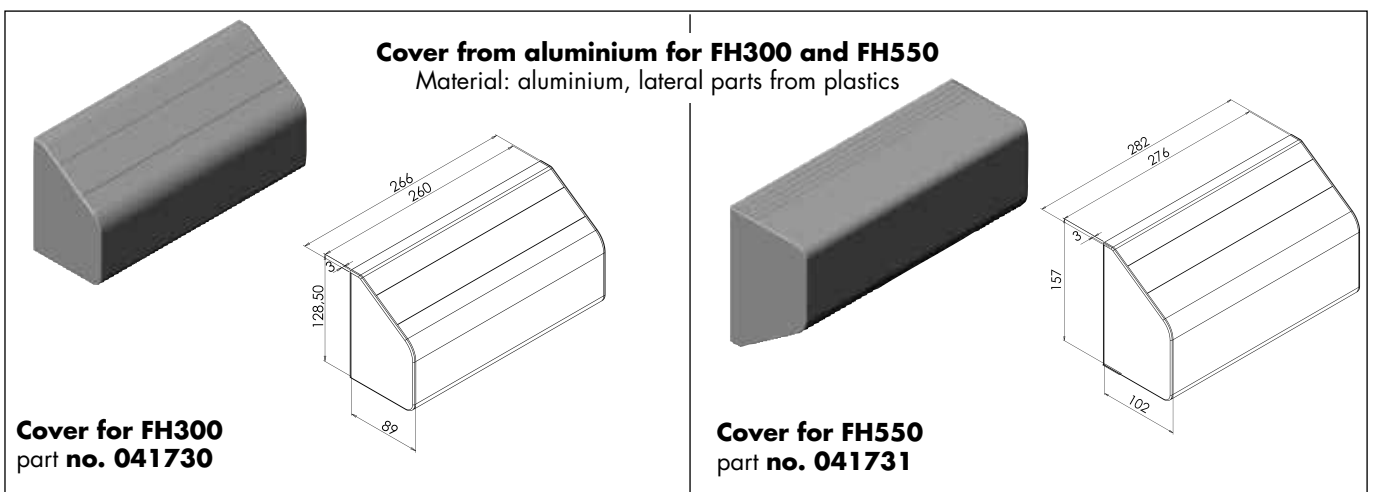
Mounting bracket MW200L	part no. 040667
Mounting bracket MW300L	part no. 040674
Mounting bracket MW550L	part no. 040286
Mounting bracket MW750L	part no. 040682
Mounting bracket set MW200Z	part no. 040668
Mounting bracket set MW300/550Z	part no. 040675
Mounting bracket MW750Z	part no. 040683
Mounting set MW300SCP for counter plate	part no. 040677
Mounting set MW550/750SCP for counter plate	part no. 040289



Accessories - Covers

For the surface bar magnets FH300 and FH550 covers are available. They completely cover the bar magnet and the counter plate when the door is closed. For the bar magnets FH550 they can be provided only in aluminium, for the FH300 in aluminium with lateral plastic caps or in powder coated, zinc-plated sheet steel.

Covers can only be used on flush doors with the corresponding mounting brackets (see page 08.057.00, installation on flush doors, 2a and 2b). With the covers from sheet steel 041741/041742 it is absolutely necessary to choose the ones conform to the installation. The covers from aluminium can be used for both installation types.



Order Information

Aluminium cover for surface type FH300	part no. 041730
Aluminium cover for surface type FH550	part no. 041731
Powder coated cover for surface FH300 (installation type 2a)	part no. 041741
Powder coated cover for surface FH300 (installation type 2b)	part no. 041742

