

Multifunctional Gate Box MGB

**EUCHNER**

More than safety.

EUCHNER

More than safety.



Headquarters in Leinfelden-Echterdingen



Logistics center in Leinfelden-Echterdingen



Production location in Unterböhringen

Internationally successful – the EUCHNER company

EUCHNER GmbH + Co. KG is a world-leading company in the area of industrial safety technology. EUCHNER has been developing and producing high-quality switching systems for mechanical and systems engineering for more than 70 years.

The medium-sized family-operated company based in Leinfelden, Germany, employs around 900 people around the world.

21 subsidiaries and other sales partners in Germany and abroad work for our international success on the market.

Quality and innovation – the EUCHNER products

A look into the past shows EUCHNER to be a company with a great inventive spirit. We take the technological and ecological challenges of the future as an incentive for extraordinary product developments.

EUCHNER safety switches monitor safety doors on machines and installations, help to minimize dangers and risks and thereby reliably protect people and processes. Today, our products range from electromechanical and electronic components to intelligent integrated safety solutions. Safety for people, machines and products is one of our dominant themes.

We define future safety technology with the highest quality standards and reliable technology. Extraordinary solutions ensure the great satisfaction of our customers. The product ranges are subdivided as follows:

- ▶ Transponder-coded Safety Switches
- ▶ Transponder-coded Safety Switches with guard locking
- ▶ Multifunctional Gate Box MGB
- ▶ Access management systems (Electronic-Key-System EKS)
- ▶ Electromechanical Safety Switches
- ▶ Magnetically coded Safety Switches
- ▶ Enabling Switches
- ▶ Safety Relays
- ▶ Emergency Stop Devices
- ▶ Hand-Held Pendant Stations and Handwheels
- ▶ Safety Switches with AS-Interface
- ▶ Joystick Switches
- ▶ Position Switches



Multifunctional Gate Box MGB

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A handle on the future

The MGB (**Multifunctional Gate Box**) is a unique interlocking or guard locking system for the protection of safety doors on machines and systems.

The MGB offers that little bit more: it is more than a safety switch, more than a bolt, and offers a lot more functionality!

A system that can grow with your needs

Even the basic system comprising handle module and evaluation module (as interlocking module or locking module) includes numerous functions. Whether interlocking, guard locking, escape release or other functions such as pushbuttons for start/stop, emergency stop, etc. – the MGB meets all your requirements for safety engineering applications.

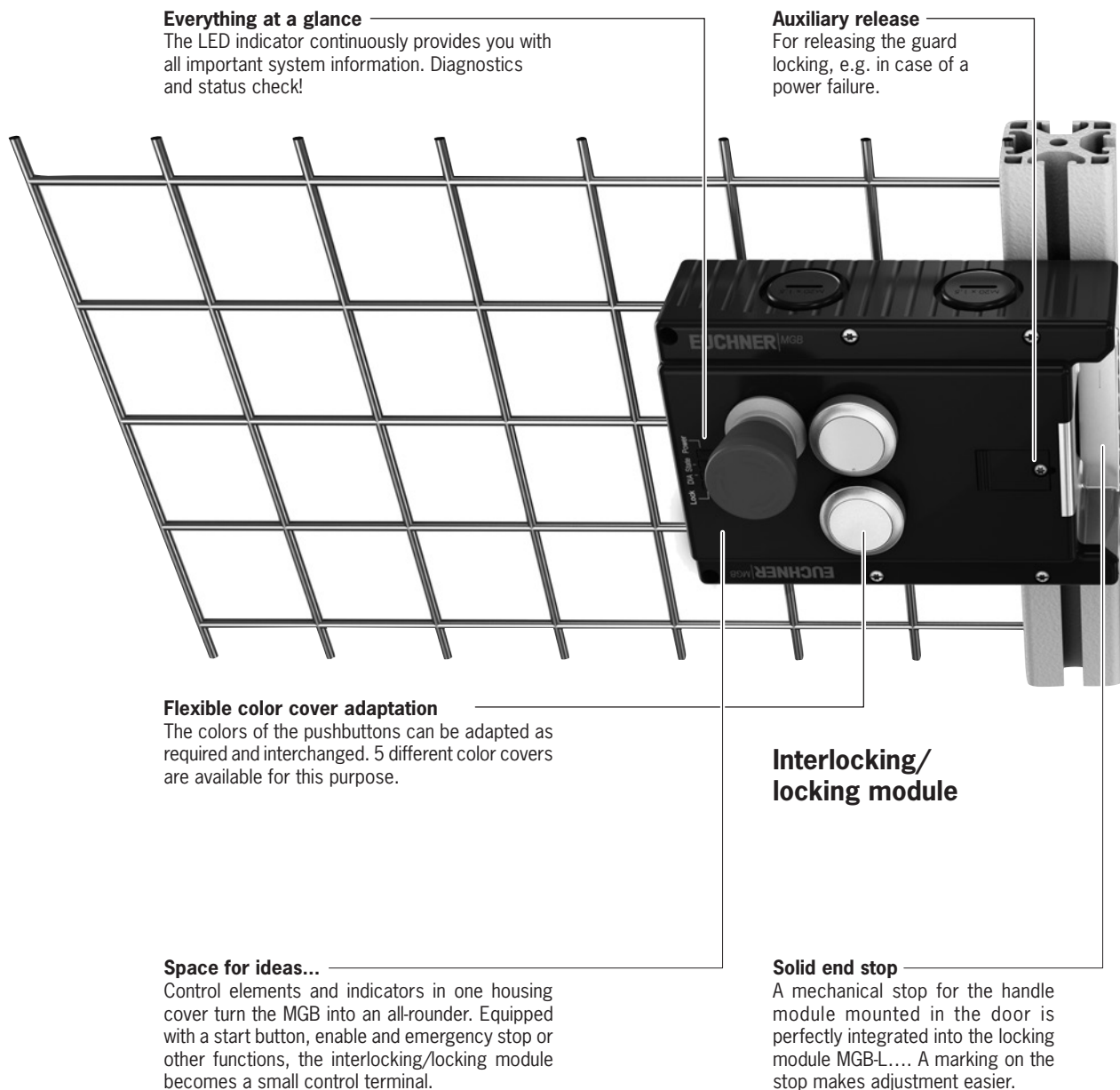
And if your needs grow, the MGB system grows with them. Due to the sophisticated modular design, the evaluation module can quickly become a small control panel.

Or with an additional control module straight away

In the wide variety of different MGBs, you will definitely find the right one for your application. If not, using the control module you can add lamps, pushbuttons or even completely different operating functions. The control module is permanently fastened to the evaluation module using the connection set.

Be certain of compliance with standards

Performance Level e in accordance with EN ISO 13849-1 or SIL3 in accordance with EN 62061 – even with the basic system you meet all these requirements. Also the requirements of EN 14119 for protection against tampering are met automatically, as each evaluation module is permanently assigned to a handle module in the unicode version.



Safety remains the most important goal

Are you locked in inside the danger zone? The optional escape release is intuitive to operate! Whether in the event of a power failure or active guard locking – simply press down the red door handle to leave the danger area quickly.

For protection when working in the danger area, you can block the bolt tongue using up to 3 padlocks in the integrated lockout mechanism. Unintentional activation of the interlocking/guard locking is prevented. Is the lockout mechanism to extend automatically when the door is open? No problem with the right handle module.

Easy to mount and sophisticated design

All MGB modules are optimized for use on fences made of aluminum profiles or steel frames. The MGB is equally suitable for doors hinged on the left or right. Both mounting and changing the actuating direction can be undertaken particularly quickly and easily. Usage on safety doors that are not constructed of profiles, works of course just as well.

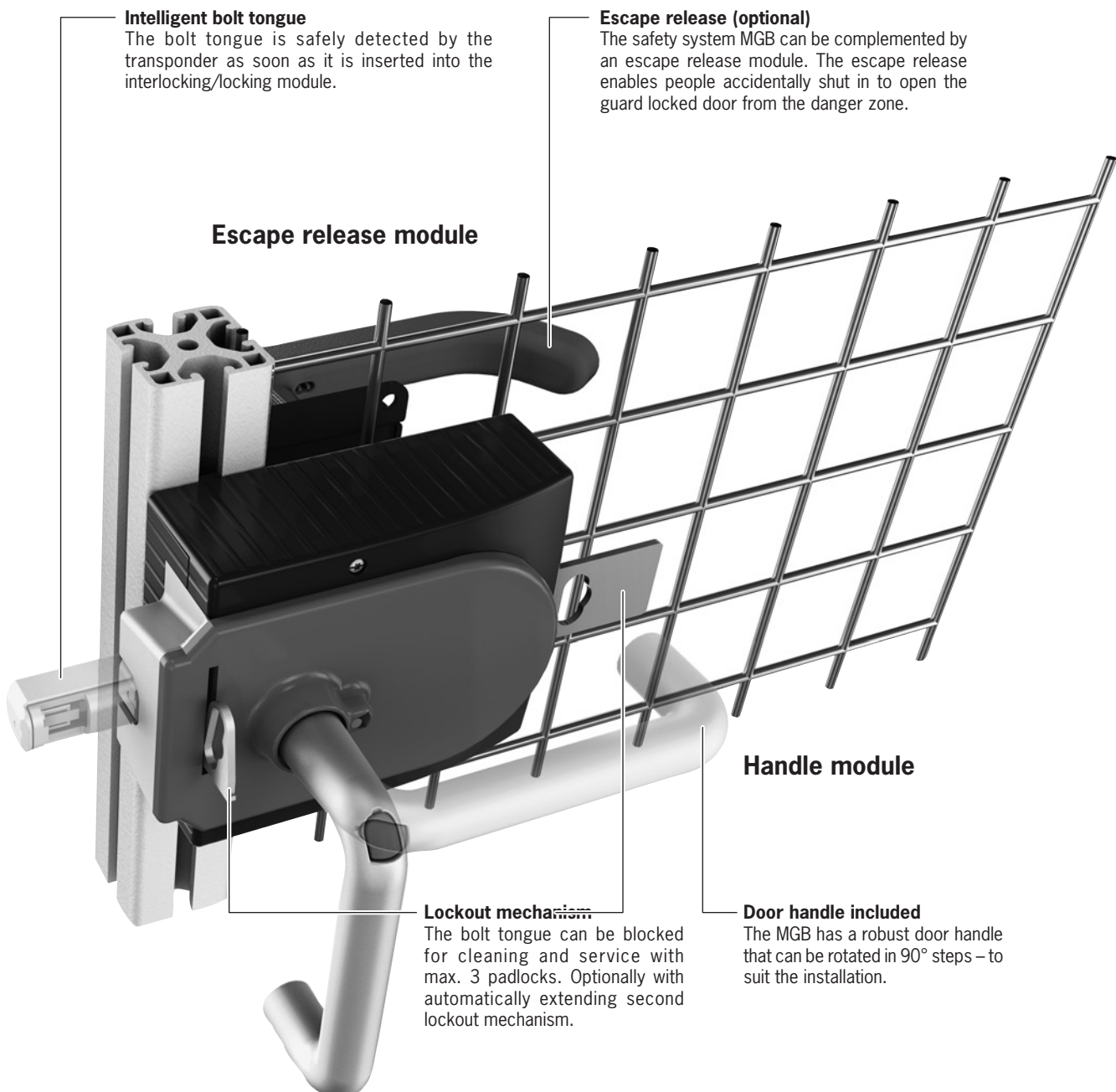
The adjustment of safety doors in fences changes over time. With ± 4 mm tolerance in the x direction as well as ± 5 mm in the z direction, the MGB is right there where the problem starts. Nevertheless, if a safety door should be even more out of adjustment, the large funnel in the evaluation module “catches” the bolt tongue and guides it into the center position.

Bolt tongue, bolt guide and insertion funnel will also withstand occasional slamming of the door. Robust metal parts protect the MGB against this problem as well. To prevent injuries, the bolt tongue remains retracted with the door open. Do you use hinged doors or sliding doors? The MGB is suitable for both. This aspect eases spare parts stockholding.

You always have an overview

Four built-in LEDs continuously provide all the necessary system information: power supply available, door closed, bolt tongue inserted, guard locking activated, diagnostics messages – everything can be seen clearly at a glance. This information is of course also available to the control system.

(Read on the next page what else there is in the MGB!)



Intelligent bolt tongue

The bolt tongue is safely detected by the transponder as soon as it is inserted into the interlocking/locking module.

Escape release (optional)

The safety system MGB can be complemented by an escape release module. The escape release enables people accidentally shut in to open the guard locked door from the danger zone.

Escape release module

Handle module

Lockout mechanism

The bolt tongue can be blocked for cleaning and service with max. 3 padlocks. Optionally with automatically extending second lockout mechanism.

Door handle included

The MGB has a robust door handle that can be rotated in 90° steps – to suit the installation.

Sophisticated accessories

Whether you need mounting plates for easier attachment, pre-assembled cables or a long escape release actuation axis (as the safety door needs to be very thick), you will find all you need in the accessories section.

Economical wiring according to standards

All devices in the family AR can be wired directly in series in a so-called AR series connection without reducing safety or the PL. As a consequence evaluation units are saved. AR devices are also available in the EUCHNER series CES and CET.

The family MGB-AP is particularly suitable for the protection of individual safety doors. If series connection is not necessary, wiring can then be saved. This version has different timing to the AR version.

Seamless integration by means of bus connection

In the PROFINET and EtherNET/IP versions, we now also make the wiring easier for you. You define which element is to be integrated and the related function. The MGB supplies, among other things, the protocol frame with the necessary PROFIsafe input and output bytes or CIP Safety input and output bytes.

Comprehensive diagnostic information in the form of PROFINET and EtherNET/IP messages makes troubleshooting quick and specific. Due to the typical ease with which parameters can be set in PROFINET or EtherNET/IP, even the replacement of the system in case of service is a simple matter and can be performed in a few minutes.

Interlocking or guard locking?**Functions of the versions MGB-LO, MGB-L1 and MGB-L2 compared****Interlocking devices (MGB-LO, without guard locking)**

Together with a handle module, the interlocking module makes it possible to interlock the control of movable guards. The combination also serves as a mechanical door stop at the same time.

The following switch-on condition applies to the safety outputs FO1A and FO1B (see also System status table):

- ▶ Guard closed (but can be opened at any time)
- ▶ Bolt tongue inserted into the interlocking module

The interlocking module detects the position of the guard and the position of the bolt tongue.

The bolt tongue in the handle module is moved into and out of the interlocking module by actuation of the door handle.

Guard locking devices (MGB-L1 and MGB-L2)

Together with a handle module, the locking module makes it possible to lock movable guards. The combination also serves as a mechanical door stop at the same time.

The following switch-on condition applies to the safety outputs FO1A and FO1B (see also System status table):

- ▶ Guard closed
- ▶ Bolt tongue inserted into the locking module
- ▶ Locking arm in locking position (the door cannot be opened)

The locking module detects the position of the guard and the position of the bolt tongue. The position of guard locking is also monitored.

The bolt tongue in the handle module is moved into and out of the locking module by actuation of the door handle.

When the bolt tongue is fully inserted into the locking module, the locking arm locks the bolt tongue in this position. Depending on version, this locking is by spring force or solenoid force.

- ▶ **Version MGB-L1:** The locking arm is held in the locked position by spring force and is unlocked by solenoid force (closed-circuit current principle, mechanically locked).
- ▶ **Version MGB-L2:** The locking arm is held in the locked position by solenoid force and is unlocked by spring force when the solenoid is switched off (open-circuit current principle, electrically locked).

Warning!

The guard can be opened immediately in the event of interruption of the solenoid power supply with the version MGB-L2-...!

This type may be used only in special cases after strict assessment of the accident risk (see EN ISO 14119:2013, section 5.7.1)!

Example: If the risk of accidental locking inside a guard during a power failure is higher than the risk of ineffective guard locking.

Flexible adaptation through configuration

The evaluation module can be configured with the aid of DIP switches. Depending on the setting, the evaluation module behaves like an MGB-AP or MGB-AR device. In addition, guard lock monitoring can be switched on or off, if guard locking is installed.

From V2.2.0, an unlocking monitoring function can be activated that signals whether the auxiliary release or escape release was actuated when guard lock monitoring is active.

Connection to evaluation units or safe control systems

The safety system MGB can be connected to almost any safe evaluation unit or to any safe control system. For this purpose the short circuit monitoring on the control system is disabled – this function is performed by the MGB. Performance Level e is of course retained.

The advantages of the Multifunctional Gate Box MGB

- ▶ Suitable for all profiles (optimized for mounting on profiles)
- ▶ Tolerance ± 4 mm in x direction, ± 5 mm in z direction
- ▶ Locking force 2000 N
- ▶ The MGB withstands forces amounting up to 300 Joule
- ▶ Optional escape release with door handle
- ▶ Optional pushbuttons and indicators can be integrated directly into the housing
- ▶ Stable metal stop prevents damage with bolt tongue extended
- ▶ Marking on the evaluation module as adjustment aid
- ▶ The actuating direction is easy to change without disassembly
- ▶ Hidden mounting holes with slots and metal mounting surfaces
- ▶ Housing material made of high quality, fiber glass reinforced plastic
- ▶ Escape release can also be used on doors with double rebate

These features are available in all devices in the families MGB-AP and MGB-AR

- ▶ Emergency release
- ▶ Connection by cable entry, max. 1.5 mm² or plug connector
- ▶ Plug connector connection, either M23 or M12 12-pin
- ▶ Series connection (only with system family AR, for description see above)
- ▶ Connection of pushbuttons to common power supply DC 24 V
- ▶ Connection of lamps to common ground
- ▶ 1- or 2-channel guard locking control via combination of IMP1, IMP2 and IMM as control inputs of a PLC (only 20 mA)
- ▶ Monitoring outputs
 - ▶ OD = Door closed
 - ▶ OT = Bolt tongue inserted into evaluation module (in case of guard locking devices ready for control of the solenoid)
 - ▶ OL = Guard locking solenoid kept in locked position
 - ▶ OI = Diagnostics, there is a fault

System families at a glance

The tables on this page provide you with a quick overview of the features and strengths of the related product family as well as the possible expansions.

What system families are available?

System family	Symbol	Use
MGB-AP		If series connection is not necessary, the number of terminals required can be reduced using this system family.
MGB-AR		Linking of several guards on one shutdown path. As a consequence, several safety doors can be very simply polled using one evaluation unit or two control system inputs.
MGB-PN		How to utilize the maximum functionality of the MGB in a PROFINET environment. Ease of replacement and flexibility are in the foreground here.
MGB-EI		How to utilize the maximum functionality of the MGB in an EtherNET/IP environment. Ease of replacement and flexibility are in the foreground here.

It is possible to switch between the MGB-AP and MGB-AR families using DIP switches.

System families compared

The tables provide you with a quick overview of the features and strengths of the related product family as well as the possible expansions.

Feature / special aspect	System family			
	MGB-AP	MGB-AR	MGB-PN	MGB-EI
Separate operation	●	○	–	–
Series connection	–	●	–	–
Bus connection	–	–	●	●
Simple diagnostics	○	○	●	●
Little wiring	●	○	●	●

Key:

● Particularly suitable ○ Suitable – Not applicable/not possible

Function / expansion	System family			
	MGB-AP	MGB-AR	MGB-PN	MGB-EI
Evaluation module with additional functions	● Selection from existing versions, customer-specific version possible *	● Selection from existing versions, customer-specific version possible*	● Selection from existing versions, customer-specific version possible*	● Selection from existing versions, customer-specific version possible*
Control module with additional functions	○ Flexible configuration due to kit MGB-C (only devices with cable entry)	○ Flexible configuration due to kit MGB-C (only devices with cable entry)	○ Configuration from factory by EUCHNER	○ Configuration from factory by EUCHNER
Mounting plates	○	○	●	●
Connection for enabling switch	○ Available in some versions	○	○ Available in some versions	○ Available in some versions
Escape release	Already contained in some sets, can be upgraded at any time.			

Key:

● Standard ○ Optional or on request – Not possible

*) Note minimum order quantity of 50 pieces!

Approvals

To demonstrate conformity, the Machinery Directive also includes the possibility of type examination. Although all relevant standards are taken into account during development, we have all our safety switches subjected to additional type examinations by a notified body.

Many of the devices listed in this catalog have been tested by the German Social Accident Insurance Association (DGUV), formerly the employers' liability insurance association (BG), and are given in the lists from the DGUV. With the aid of the approval symbols listed below you can quickly see which approvals are available for the related devices:



Devices with this symbol are type examined by the German Social Accident Insurance Association (DGUV) – formerly the employers' liability insurance association (BG)



All MGB devices comply with the stipulations of Underwriter Laboratories (UL) and carry the symbol

Explanation of symbols

System families



System family MGB-AP for separate operation



System family MGB-AR for separate operation or series connection with other AR devices



System family MGB-PN for operation in PROFINET environment



System family MGB-EI for operation in EtherNET/IP environment

Safety category/guard locking



Suitable up to category 4 or Performance Level e in accordance with EN ISO 13849-1



Guard locking for protection of personnel



Guard locking for process protection

Controls and indicators



Emergency stop according to ISO 13850



Illuminated emergency stop



Emergency stop with monitoring contact



Machine stop (black-silver)



Machine stop (black-silver) with monitoring contact



Illuminated pushbuttons



Pushbutton not illuminated



LED



Selector switch form V



Selector switch form V illuminated



Key-operated selector switch form V



Key-operated selector switch form L



Pushbutton labeling "Unlocked"



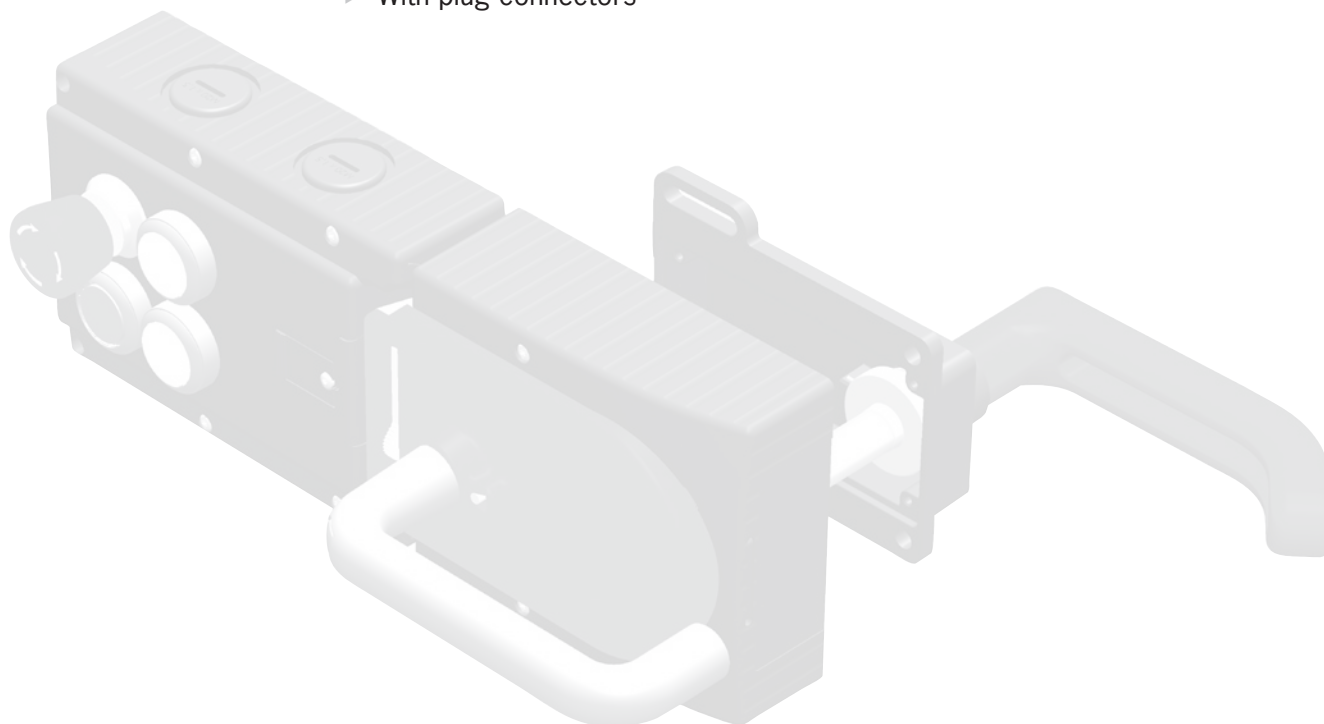
Pushbutton labeling "Locked"



Other possible button labels

Complete sets system families MGB-AP/MGB-AR

- ▶ Interlocking or guard locking with handle module
- ▶ With escape release
- ▶ With pushbuttons and emergency stop
- ▶ With plug connectors



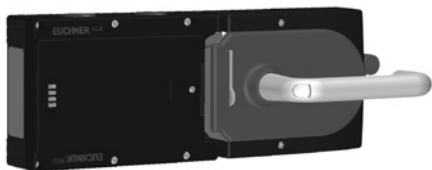
MGB-AP

MGB-AR

Interlocking sets MGB-L0-... (without guard locking)	8 - 13
without controls and indicators	8
with 2 controls and indicators	10
with 3 controls and indicators	12
Locking sets MGB-L1-... (guard locking by spring force)	14 - 34
without controls and indicators	14
with 1 control and indicator	16
with 2 controls and indicators	18
with 3 controls and indicators	24
with 4 controls and indicators	32
Locking sets MGB-L2-... (guard locking by solenoid force)	36 - 47
without controls and indicators	36
with 2 controls and indicators	38
with 3 controls and indicators	42
with 4 controls and indicators	46
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Interlocking sets MGB-LO-... without controls or indicators

Cat.
4
PLe

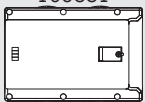
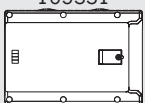
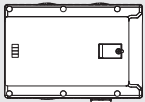
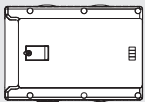


Further information

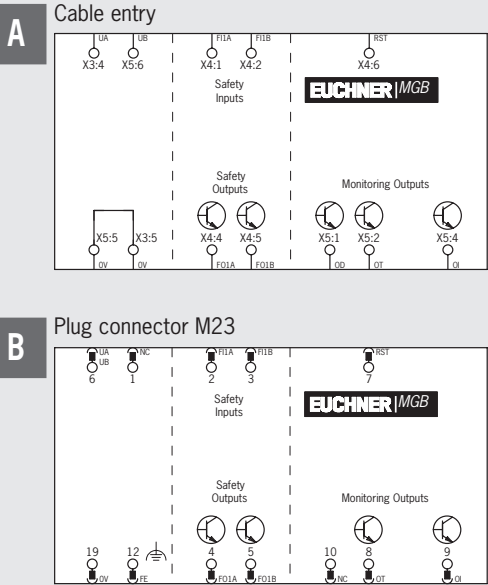
- ▶ Dimension drawings see p. 49
- ▶ Technical data see p. 48
- ▶ Accessories and spare parts see p. 59
- ▶ www.euchner.com

- ▶ Can be connected in series with other AR devices (e.g. CES-AR, CET-AR and CTP-AR)
- ▶ With cable entry

Ordering table

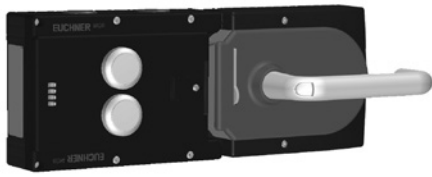
Modules in the set									Ordering data, set
Interlocking module						Handle module Order no. separate module	Escape release Order no. separate module	Door hinge (factory setting)	Order no./item
Version/configuration scheme Order no. separate module	S1 H1	S2 H2	S3 H3	S4 H4	Wiring diagram				
 105331					A	100464	—	right	105778 MGB-LOH-AR-R-105778
 105331	—	—	—	—			100465		105780 MGB-LOHE-ARR-105780
 111937					B	111157		right	111938 MGB-LOHE-ARA-R-111938
 111941	—	—	—	—		111158	100465	left	111942 MGB-LOHE-ARA-L-111942

Block diagram



Interlocking sets MGB-LO-... with 2 controls or indicators

Cat.
4
PLe



Details

Lens set

The color of the pushbuttons can be selected using the lens set 120344 included.

Adhesive labels

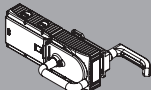
Devices with adhesive labels have pre-formed recesses. The adhesive labels enclosed (standard size 12.5 x 27 mm) can be affixed in these recesses.

Further information

- Dimension drawings see p. 49
- Technical data see p. 48
- Accessories and spare parts see p. 59
- www.euchner.com

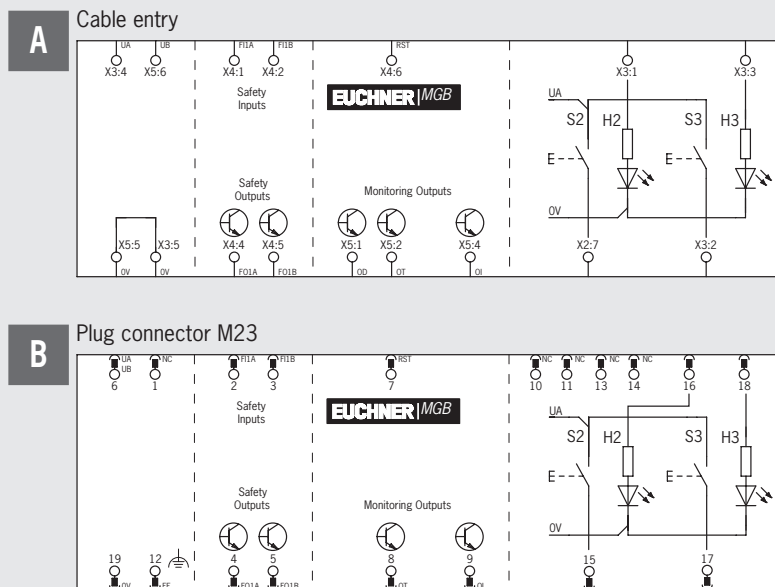
- Can be connected in series with other AR devices (e.g. CES-AR, CET-AR and CTP-AR)
- With cable entry
- Integrated controls and indicators

Ordering table for complete sets

Modules in the set										Ordering data, set
 Interlocking module						 Handle module Order no. separate module	 Escape release Order no. separate module	Door hinge (factory setting)	 Order no./item	
Version/configuration scheme	S1	S2	S3	S4	Wiring diagram					
Order no. separate module	H1	H2	H3	H4						

* The color can be selected using the lens set included.

Block diagram and wiring diagram for controls and indicators

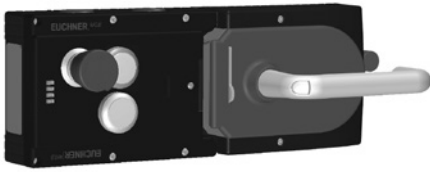


MGB-AP

MGB-AR

Interlocking sets MGB-LO-... with 3 controls or indicators

Cat.
4
PLe



Details

Emergency stop with monitoring contact

Additional normally open contact in the emergency stop, e.g. as monitoring contact for the control system.

Lens set

The color of the pushbuttons can be selected using the lens set 120344 included.

Adhesive labels

Devices with adhesive labels have pre-formed recesses. The adhesive labels enclosed (standard size 12.5 x 27 mm) can be affixed in these recesses.

Further information

- ▶ Dimension drawings see p. 49
- ▶ Technical data see p. 48
- ▶ Accessories and spare parts see p. 59
- ▶ www.euchner.com

- ▶ Can be connected in series with other AR devices (e.g. CES-AR, CET-AR and CTP-AR)
- ▶ With cable entry or plug connector
- ▶ Integrated controls and indicators

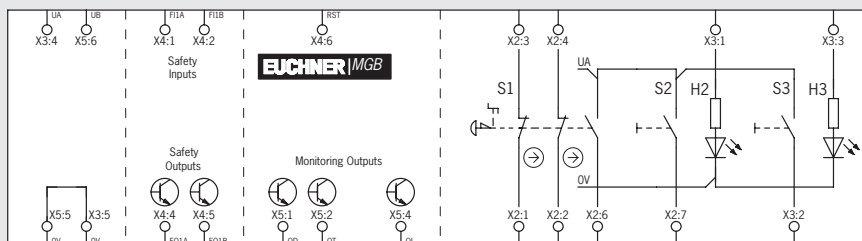
Ordering table

Modules in the set									Ordering data, set
Interlocking module						Handle module Order no. separate module	Escape release Order no. separate module	Door hinge (factory setting)	Order no./item
Version/configuration scheme Order no. separate module	S1 H1	S2 H2	S3 H3	S4 H4	Wiring diagram				
121232 							100465		121233 MGB-LOHE-ARA-R-121233
121253 incl. adhesive labels				–	A	100464		right	121254 MGB-LOH-ARA-R-121254
121259 incl. adhesive labels						106619	–	left	121260 MGB-LOH-ARA-L-121260
116300 incl. adhesive labels				–	B	111157		right	110691 MGB-LOHE-ARA-R-110691
116302 incl. adhesive labels		ye	wh			111158	100465	left	110692 MGB-LOHE-ARA-L-110692

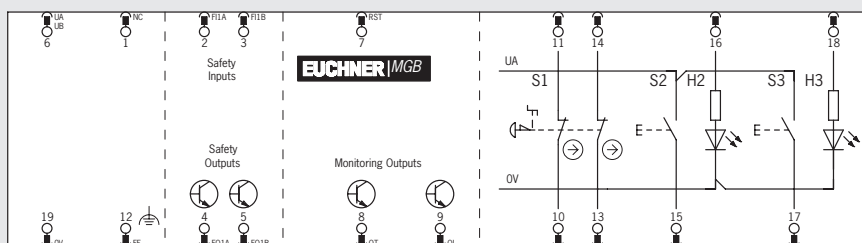
* The color can be selected using the lens set included.

Block diagram and wiring diagrams for controls and indicators

A Cable entry



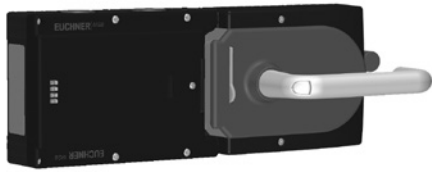
B Plug connector M23



**Locking sets MGB-L1-... (guard locking by spring force)
without control or indicator**



Cat.
4
PLe

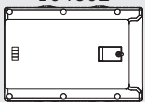
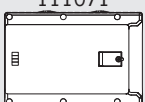
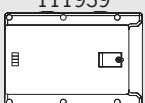
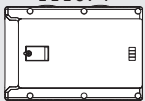


Further information

- ▶ Dimension drawings see p. 49
- ▶ Technical data see p. 48
- ▶ Accessories and spare parts see p. 59
- ▶ www.euchner.com

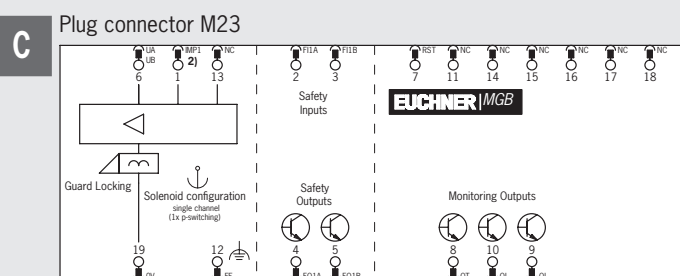
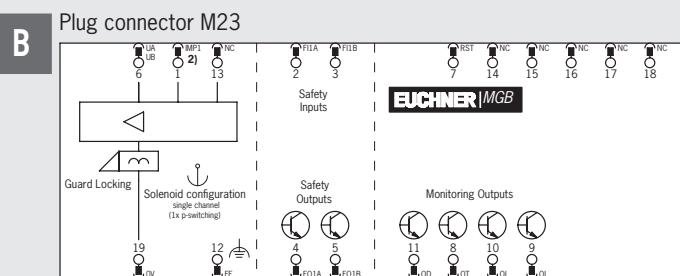
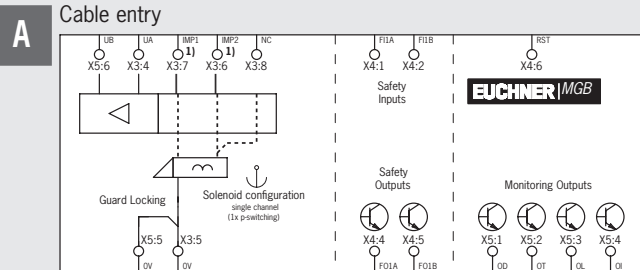
- ▶ Can be connected in series with other AR devices (e.g. CES-AR, CET-AR and CTP-AR)
- ▶ With cable entry or plug connector

Ordering table

Modules in the set										Ordering data, set
Locking module						Handle module Order no. separate module	Escape release Order no. separate module	Door hinge (factory setting)	Order no./item	
Version/configuration scheme Order no. separate module	S1 H1	S2 H2	S3 H3	S4 H4	Wiring diagram					
		-	-	-	A	100464	100465	right	105784 MGB-L1HE-ARR-105784	
							-		105782 MGB-L1H-ARR-105782	
		-	-	-	B	100464	-	right	111070 MGB-L1H-ARR-111070	
						106619	-		111073 MGB-L1H-ARAL-111073	
		-	-	-	C	111157	-	right	111940 MGB-L1HE-ARR-111940	
						111158	100465		111944 MGB-L1HE-ARAL-111944	
		-	-	-				left		



Block diagram



- 1) In the delivery state, IMP1 and IMP2 are bridged with a jumper. For 2-channel control of the solenoid, the jumper must be removed.
2) In the delivery state, IMP1 and IMP2 are bridged with a jumper. 2-channel control of the solenoid is not intended for this device.

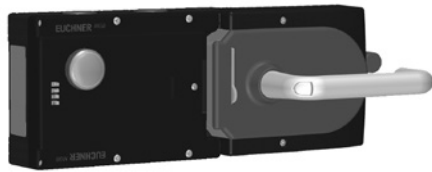
Locking sets MGB-L1-... (guard locking by spring force) with one control or indicator



Cat.
4
PLe



UL
LISTED



Details

Lens set

The color of the pushbuttons can be selected using the lens set 120344 included.

Further information

- ▶ Dimension drawings see p. 49
- ▶ Technical data see p. 48
- ▶ Accessories and spare parts see p. 59
- ▶ www.euchner.com

- ▶ Can be connected in series with other AR devices (e.g. CES-AR, CET-AR and CTP-AR)
- ▶ With cable entry or plug connector
- ▶ Integrated control and indicator

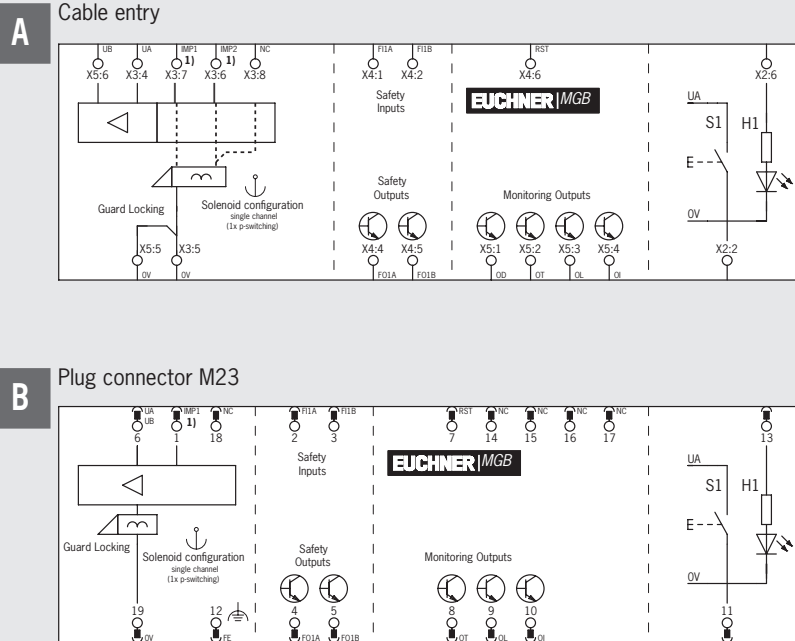
Ordering table

Modules in the set									Ordering data, set
Locking module						Handle module Order no. separate module	Escape release Order no. separate module	Door hinge (factory setting)	Order no./item
Version/configuration scheme Order no. separate module	S1 H1	S2 H2	S3 H3	S4 H4	Wiring diagram				
120990 					A				120991 MGB-L1HE-ARA-R-120991
121034 		—	—	—		100464	100465	right	121035 MGB-L1HE-ARA-R-121035
121039 					B	106619		left	121040 MGB-L1HE-ARA-L-121040

* The color can be selected using the lens set included.



Block diagram and wiring diagrams for control and indicator



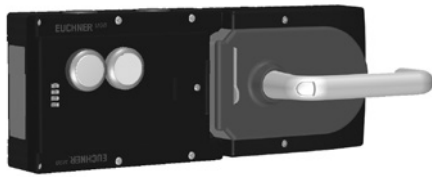
- 1) In the delivery state, IMP1 and IMP2 are bridged with a jumper. For 2-channel control of the solenoid, the jumper must be removed.
- 2) In the delivery state, IMP1 and IMP2 are bridged with a jumper. 2-channel control of the solenoid is not intended for this device.

Locking sets MGB-L1-... (guard locking by spring force) with 2 controls or indicators



Cat.
4

PLe



- ▶ Can be connected in series with other AR devices (e.g. CES-AR, CET-AR and CTP-AR)
- ▶ With cable entry or plug connector
- ▶ Integrated controls and indicators

Details

Emergency stop with monitoring contact

Additional normally open contact in the emergency stop, e.g. as monitoring contact for the control system.

Key-operated rotary switch

- ▶ **Form L**, 90° angle of rotation with 2 positions. The key latches in both positions and can be removed in both positions. Devices with key-operated rotary switch form L have degree of protection IP54.
- ▶ **Form V**, 40° angle of rotation with 2 positions. The key latches in position 0 and can be removed in position 0.

Lens set

The color of the pushbuttons can be selected using the lens set 120344 included.

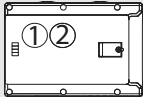
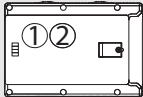
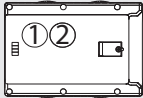
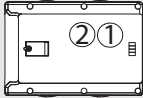
Adhesive labels

Devices with adhesive labels have pre-formed recesses. The adhesive labels enclosed (standard size 12.5 x 27 mm) can be affixed in these recesses.

Further information

- ▶ Dimension drawings see p. 49
- ▶ Technical data see p. 48
- ▶ Accessories and spare parts see p. 59
- ▶ www.euchner.com

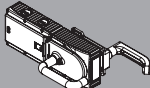
Ordering table

Modules in the set										Ordering data, set
Locking module						Handle module Order no. separate module	Escape release Order no. separate module	Door hinge (factory setting)	Order no./item	
Version/configuration scheme Order no. separate module	S1 H1	S2 H2	S3 H3	S4 H4	Wiring diagram					
	121130 		 *)	—	—	A	100464	100465	right	121131 MGB-L1HE-ARA-R-121131
	121050 	 *)	 *)	—	—	B	100464	—	right	121051 MGB-L1H-ARA-R-121051
							100465	121052 MGB-L1HE-ARA-R-121052		
	119806  IP54	 wh	 Form V 40°	—	—	C	114655	100465	right	119807 MGB-L1HE-ARA-R-119807
119808  IP54					114656	left	119809 MGB-L1HE-ARA-L-119809			

* The color can be selected using the lens set included.

(Continued on next page)

Ordering table (continued)

Modules in the set										Ordering data, set				
 Locking module						 Handle module Order no. separate module	 Escape release Order no. separate module	Door hinge (factory setting)	 Order no./item					
Version/configuration scheme	S1	S2	S3	S4	Wiring									
Order no. separate module	H1	H2	H3	H4	diagram									
 AR	-	 *)	 *)	-	 D	100464	-	right	121061 MGB-L1H-ARA-R-121061					
										121062 MGB-L1HE-ARA-R-121062				
										121087 MGB-L1HE-ARA-R-121087 (with lens set 120378)				
										121170 MGB-L1H-ARA-R-121170				

* The color can be selected using the lens set included.

(Continued on next page)

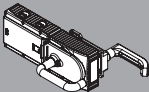
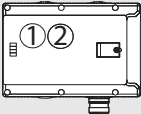
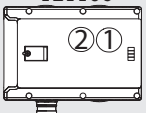
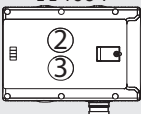
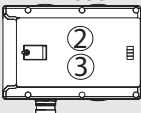
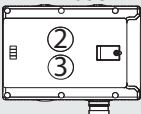
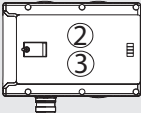
Locking sets MGB-L1-... (guard locking by spring force) with 2 controls or indicators



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PLe



Ordering table (continued)

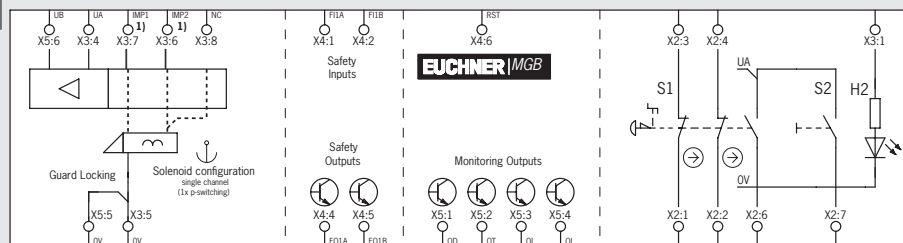
Modules in the set										Ordering data, set
 Locking module						 Handle module Order no. separate module	 Escape release Order no. separate module	Door hinge (factory setting)	 Order no./item	
Version/configuration scheme Order no. separate module	S1 H1	S2 H2	S3 H3	S4 H4	Wiring diagram					
 121104 incl. adhesive labels	 *)	 *)	—	—	E	100464	—	right	121105 MGB-L1H-ARA-R-121105	
 121106 incl. adhesive labels						106619		left	121107 MGB-L1H-ARA-L-121107	
 114054 incl. adhesive labels		 ye	—	—	F	111157	100465	right	114056 MGB-L1HE-ARA-R-114056	
 114055 incl. adhesive labels						111158		left	114057 MGB-L1HE-ARA-L-114057	
 111653 incl. adhesive labels	—	 ye	 wh	—	G	100464	—	right	111655 MGB-L1H-ARA-R-111655	
 111654 incl. adhesive labels						106619		left	111656 MGB-L1H-ARA-L-111656	

* The color can be selected using the lens set included.

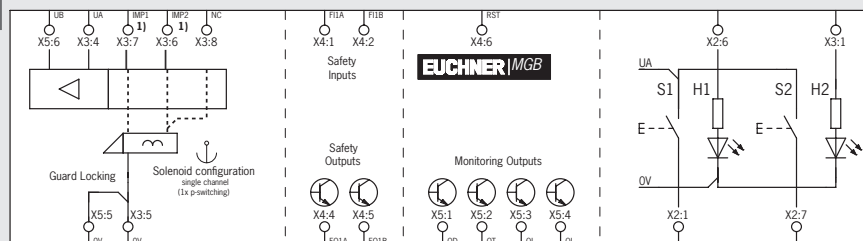


Block diagram and wiring diagrams for controls and indicators

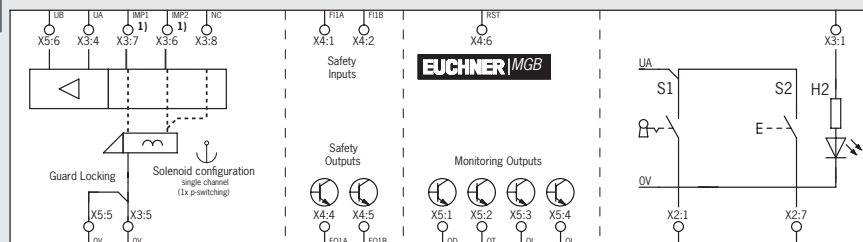
A Cable entry



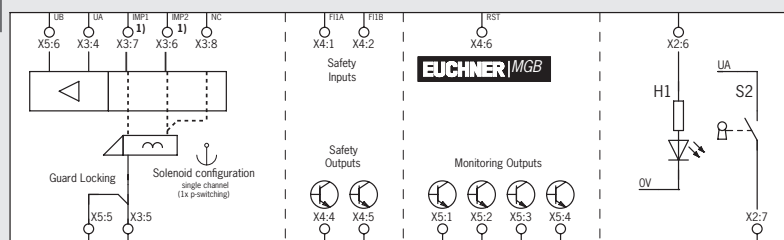
B Cable entry



C Cable entry



D Cable entry



1) In the delivery state, IMP1 and IMP2 are bridged with a jumper. For 2-channel control of the solenoid, the jumper must be removed.

MGB-AP

MGB-AR

Locking sets MGB-L1-... (guard locking by spring force) with 2 controls or indicators



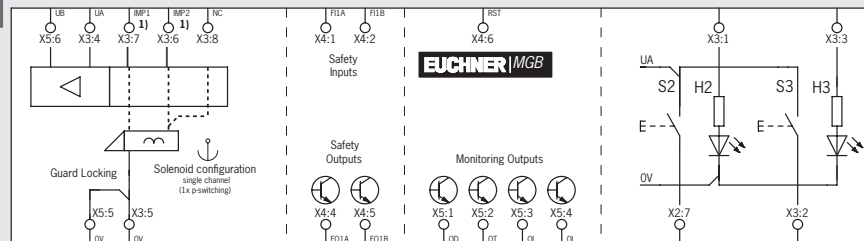
Cat.
4
PLe



Block diagram and wiring diagrams for controls and indicators

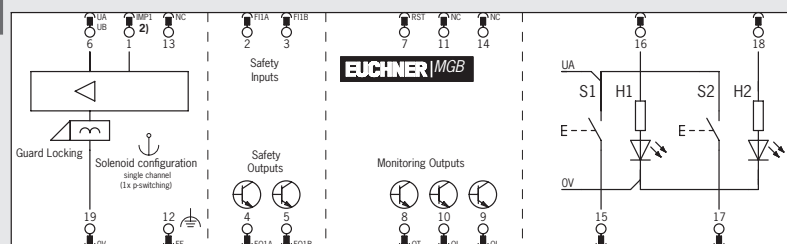
E

Cable entry



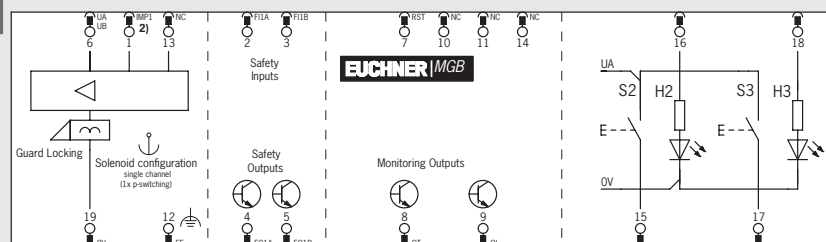
F

Plug connector M23



G

Plug connector M23



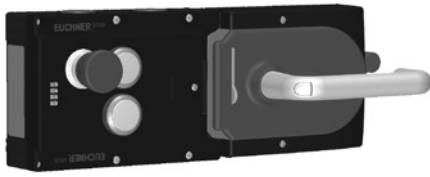
- 1) In the delivery state, IMP1 and IMP2 are bridged with a jumper. For 2-channel control of the solenoid, the jumper must be removed.
- 2) In the delivery state, IMP1 and IMP2 are bridged with a jumper. 2-channel control of the solenoid is not intended for this device.



MGB-AP

MGB-AR

Locking sets MGB-L1-... (guard locking by spring force) with 3 controls or indicators



- ▶ Can be connected in series with other AR devices (e.g. CES-AR, CET-AR and CTP-AR)
- ▶ With cable entry or plug connector
- ▶ Integrated controls and indicators

Details

Release monitoring activated

When release monitoring is active, the system enters into a latching fault when the escape release or auxiliary release is actuated.

Emergency stop with monitoring contact

Additional normally open contact in the emergency stop, e.g. as monitoring contact for the control system.

Illuminated emergency stop

Emergency stop with illumination that can be controlled as required.

Connection for enabling switch

The devices have an M12 plug connector for the direct connection of an enabling switch (e.g. ZSA, order no. 110560).

Lens set

The color of the pushbuttons can be selected using the lens set 120344 included.

Adhesive labels

Devices with adhesive labels have pre-formed recesses. The adhesive labels enclosed (standard size 12.5 x 27 mm) can be affixed in these recesses.

Selector switch

Selector switch with 2 positions (form V, 90°). The switch latches in both positions.

Machine stop

Version as emergency stop but in gray/yellow, e.g. as machine stop.

Important: Do not use as emergency stop.

Further information

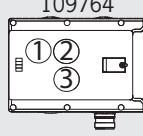
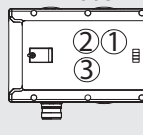
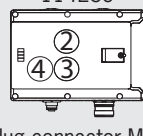
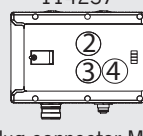
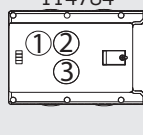
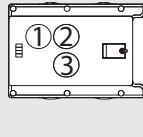
- ▶ Dimension drawings see p. 49
- ▶ Technical data see p. 48
- ▶ Accessories and spare parts see p. 59
- ▶ www.euchner.com

Ordering table

Modules in the set									Ordering data, set
Locking module						Handle module Order no. separate module	Escape release Order no. separate module	Door hinge (factory setting)	Order no./item
Version/configuration scheme Order no. separate module	S1 H1	S2 H2	S3 H3	S4 H4	Wiring diagram				
115224 				-	A	100464	-	right	115178 MGB-L1H-APAR-115178
115225 		wh	wh			106619		left	115179 MGB-L1H-APAL-115179
110585 	-				B	100464	-	right	110587 MGB-L1H-APAR-110587
110586 		wh	ye			106619		left	110588 MGB-L1H-APAL-110588
Plug connector M12 for enabling switch, incl. adhesive labels									
Plug connector M12 for enabling switch, incl. adhesive labels									

(Continued on next page)

Ordering table (continued)

Modules in the set										Ordering data, set
Locking module						Handle module Order no. separate module	Escape release Order no. separate module	Door hinge (factory setting)	Order no./item	
Version/configuration scheme Order no. separate module	S1 H1	S2 H2	S3 H3	S4 H4	Wiring diagram					
	 109764		 wh	 wh	-	 C	111157	-	right	109772 MGB-L1H-APA-R-109772
	 117068						111158		left	117069 MGB-L1H-APA-L-117069
	 114235 Plug connector M12 for enabling switch	-	 wh	 ye	 bu	 D	111157	-	right	114236 MGB-L1H-APA-R-114236
	 114237 Plug connector M12 for enabling switch						111158		left	114238 MGB-L1H-APA-L-114238
	 114784		 wh	 wh	-	 E	100464	-	right	114785 MGB-L1H-ARA-R-114785
	 110219		 ye	 wh	-	 E	100464	-	right	105783 MGB-L1H-AR-R-105783
								100465		110220 MGB-L1HE-AR-R-110220

* The color can be selected using the lens set included.

(Continued on next page)

Locking sets MGB-L1-... (guard locking by spring force) with 3 controls or indicators



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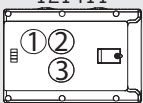
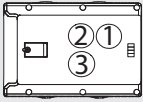
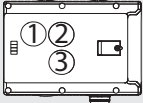
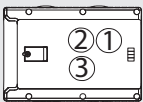
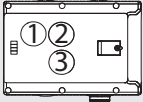
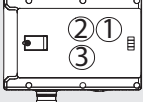
Ordering table (continued)

Modules in the set										Ordering data, set
Locking module						Handle module Order no. separate module	Escape release Order no. separate module	Door hinge (factory setting)	Order no./item	
Version/configuration scheme Order no. separate module	S1 H1	S2 H2	S3 H3	S4 H4	Wiring diagram					
 121255 incl. adhesive labels						100464		right	121256 MGB-L1H-ARA-R-121256	
 121261 incl. adhesive labels		 *)	 *)	—	E	106619	—	left	121262 MGB-L1H-ARA-L-121262	
		 *)	 *)	—	E	100464		right	121235 MGB-L1H-ARA-R-121235	
						106619	—	left	121242 MGB-L1H-ARA-L-121242	
						100464		right	121236 MGB-L1HE-ARA-R-121236	
						106619	100465	left	121243 MGB-L1HE-ARA-L-121243	
 109314		 wh	 Form V 90°	—	F	100464	100465	right	109313 MGB-L1HE-AR-R-109313	

* The color can be selected using the lens set included.

(Continued on next page)

Ordering table (continued)

Modules in the set										Ordering data, set
Locking module						Handle module Order no. separate module	Escape release Order no. separate module	Door hinge (factory setting)	Order no./item	
Version/configuration scheme Order no. separate module	S1 H1	S2 H2	S3 H3	S4 H4	Wiring diagram					
 121411 incl. adhesive labels						100464		right	121412 MGB-L1HARA-R-121412	
 121413 incl. adhesive labels		 *)	 *)	—		106619	—	left	121414 MGB-L1HARA-L-121414	
 117310 incl. adhesive labels						111157		right	117314 MGB-L1HARA-R-117314	
 117312 incl. adhesive labels		 ye	 wh	—		111158	—	left	117316 MGB-L1HARA-L-117316	
 121215 incl. adhesive labels						100464		right	121216 MGB-L1HE-ARA-R-121216	
 121217 incl. adhesive labels		 *)	 *)	—		106619	100465	left	121218 MGB-L1HE-ARA-L-121218	

* The color can be selected using the lens set included.

(Continued on next page)

Locking sets MGB-L1-... (guard locking by spring force) with 3 controls or indicators



Cat.
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PLe

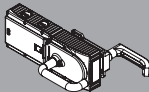
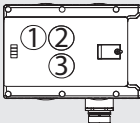
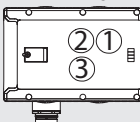


Ordering table (continued)

Modules in the set									Ordering data, set
Locking module						Handle module Order no. separate module	Escape release Order no. separate module	Door hinge (factory setting)	Order no./item
Version/configuration scheme Order no. separate module	S1 H1	S2 H2	S3 H3	S4 H4	Wiring diagram				
 110792 incl. adhesive labels						100464		right	110613 MGB-L1H-ARAR-110613
 110793 incl. adhesive labels						106619	—	left	110614 MGB-L1H-ARAL-110614
 116301 Release monitoring activated, incl. adhesive labels		 ye	 wh	—	H	111157	100465	right	110689 MGB-L1HE-ARAR-110689
 116303 Release monitoring activated, incl. adhesive labels						111158		left	110690 MGB-L1HE-ARAL-110690
 111101 incl. adhesive labels		 wh	 wh		H	111739		right	111020 MGB-L1H-ARAR-111020
 111103 incl. adhesive labels	—	 wh	 wh			111741	—	left	111022 MGB-L1H-ARAL-111022

(Continued on next page)

Ordering table (continued)

Modules in the set										Ordering data, set
 Locking module						 Handle module Order no. separate module	 Escape release Order no. separate module	Door hinge (factory setting)	 Order no./item	
Version/configuration scheme Order no. separate module	S1 H1	S2 H2	S3 H3	S4 H4	Wiring diagram					
	 121208 incl. adhesive labels		 *)	 *)			100464	right	121209 MGB-L1HARA-R-121209	
	 121210 incl. adhesive labels						106619	left	121211 MGB-L1HARA-L-121211	

* The color can be selected using the lens set included.

Locking sets MGB-L1-... (guard locking by spring force) with 3 controls or indicators

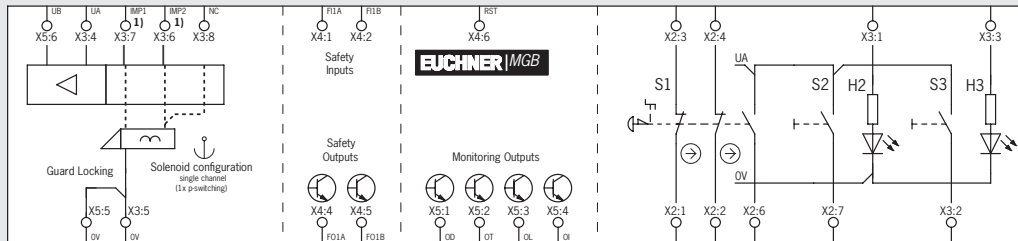


Cat.
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PLe

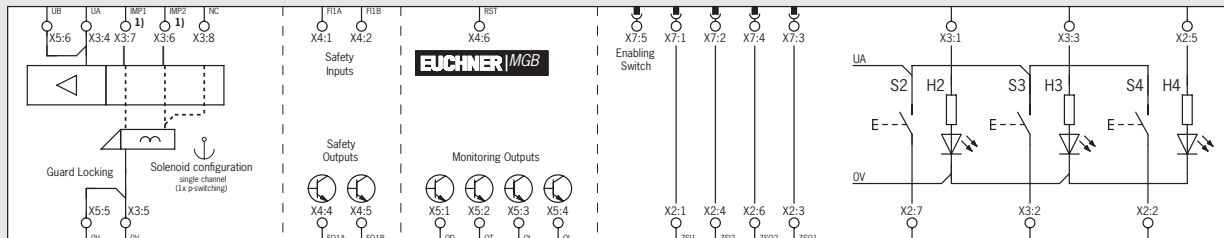


Block diagram and wiring diagram for controls and indicators

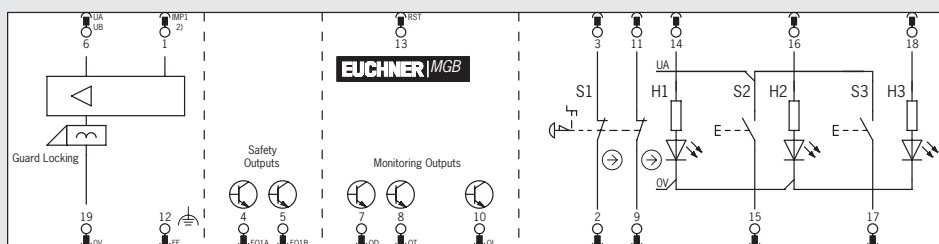
A Cable entry



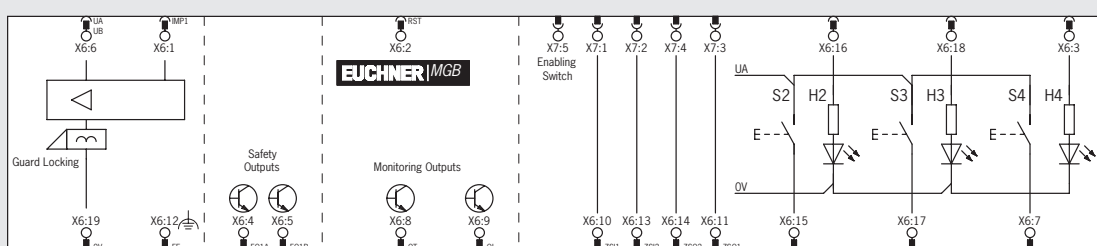
B Cable entry



C Plug connector M23



D Plug connector M23

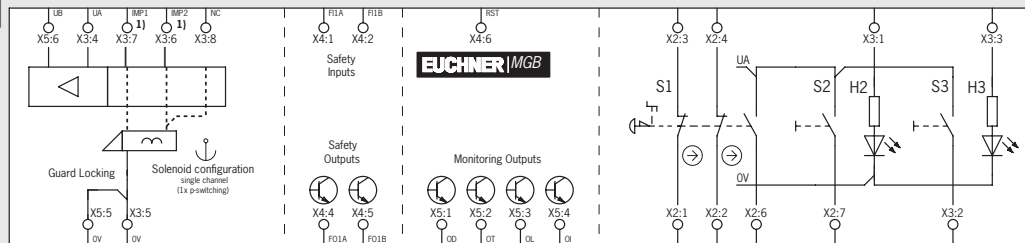


- 1) In the delivery state, IMP1 and IMP2 are bridged with a jumper. For 2-channel control of the solenoid, the jumper must be removed.
- 2) In the delivery state, IMP1 and IMP2 are bridged with a jumper. 2-channel control of the solenoid is not intended for this device.

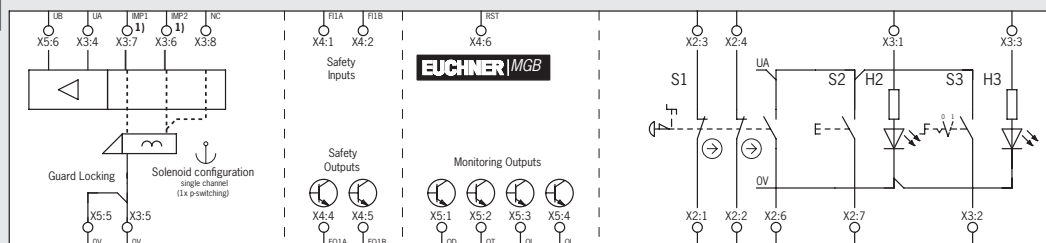
(Continued on next page)

Block diagram and wiring diagrams for controls and indicators (continued)

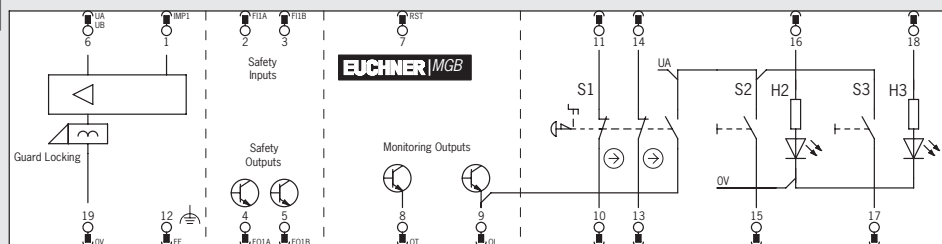
E Cable entry



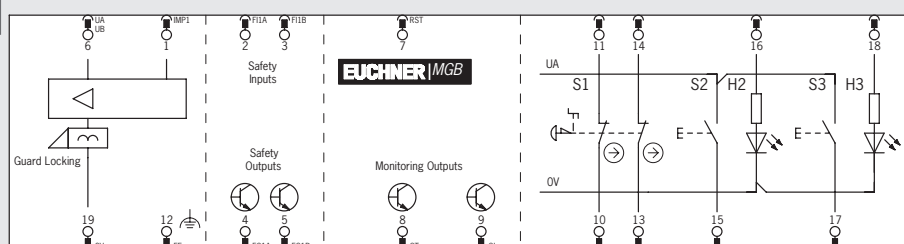
F Cable entry



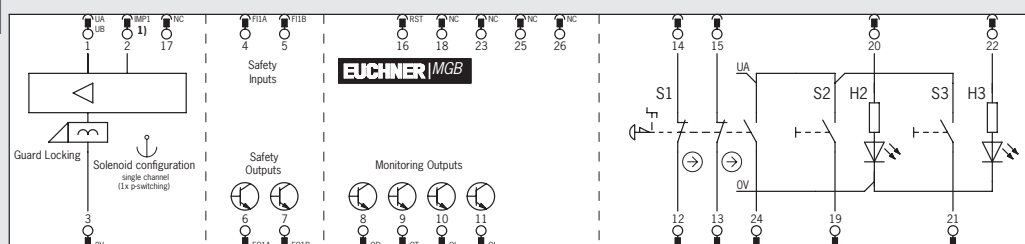
G Plug connector M23



H Plug connector M23



I Plug connector RC26

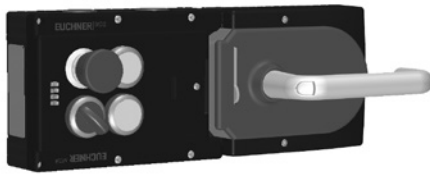


1) In the delivery state, IMP1 and IMP2 are bridged with a jumper. For 2-channel control of the solenoid, the jumper must be removed.
2) In the delivery state, IMP1 and IMP2 are bridged with a jumper. 2-channel control of the solenoid is not intended for this device.

Locking sets MGB-L1-... (guard locking by spring force) with 4 controls or indicators



Cat.
4
PLe



Details

Release monitoring activated

When release monitoring is active, the system enters into a latching fault when the escape release or auxiliary release is actuated.

Emergency stop with monitoring contact

Additional normally open contact in the emergency stop, e.g. as monitoring contact for the control system.

Lens set

The color of the pushbuttons can be selected using the lens set 120344 included.

Selector switch, illuminated

Selector switch with 2 positions (form V, 90°). The switch latches in both positions.

Further information

- ▶ Dimension drawings see p. 49
- ▶ Technical data see p. 48
- ▶ Accessories and spare parts see p. 59
- ▶ www.euchner.com

- ▶ Can be connected in series with other AR devices (e.g. CES-AR, CET-AR and CTP-AR)
- ▶ With cable entry or plug connector
- ▶ Integrated controls and indicators

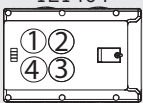
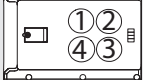
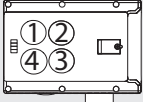
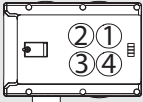
Ordering table

Modules in the set									Ordering data, set
Locking module						Handle module Order no. separate module	Escape release Order no. separate module	Door hinge (factory setting)	Order no./item
Version/configuration scheme Order no. separate module	S1 H1	S2 H2	S3 H3	S4 H4	Wiring diagram				
121812 Release monitoring activated, incl. adhesive labels						111838		right	121813 MGB-L1HE-APA-R-121813 (Modules pre-assembled on mounting plates)
121814 Release monitoring activated, incl. adhesive labels	STOP	wh	rd	gn	A		106051	left	
117228 Release monitoring activated, incl. adhesive labels	STOP	gn	wh	bu	B	100464		right	117229 MGB-L1H-ARA-R-117229
117230 Release monitoring activated, incl. adhesive labels	STOP	gn	wh	bu	B	106619		left	117231 MGB-L1H-ARA-L-117231

* The color can be selected using the lens set included.

(Continued on next page)

Ordering table (continued)

Modules in the set										Ordering data, set
Locking module						Handle module Order no. separate module	Escape release Order no. separate module	Door hinge (factory setting)	Order no./item	
Version/configuration scheme Order no. separate module	S1 H1	S2 H2	S3 H3	S4 H4	Wiring diagram					
 121404		 *)	 *)	 Form V 90°	 C	100464	-	right	121405 MGB-L1H-ARA-R-121405	
 121406						106619		left	121407 MGB-L1H-ARA-L-121407	
 119923		 gn	 wh	 bu	 D	100464	-	right	119924 MGB-L1H-ARA-R-119924	
 119925						106619		left	119926 MGB-L1H-ARA-L-119926	

* The color can be selected using the lens set included.

Locking sets MGB-L1-... (guard locking by spring force) with 4 controls or indicators

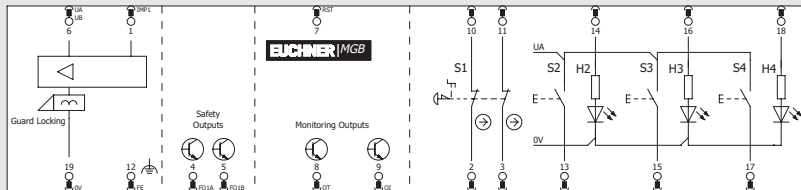


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PLe

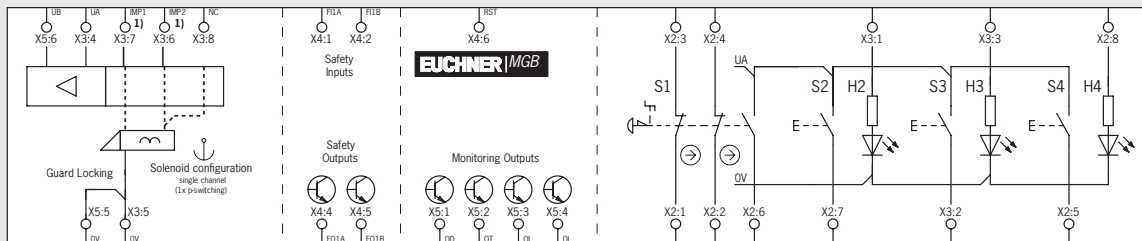


Block diagram and wiring diagrams for controls and indicators

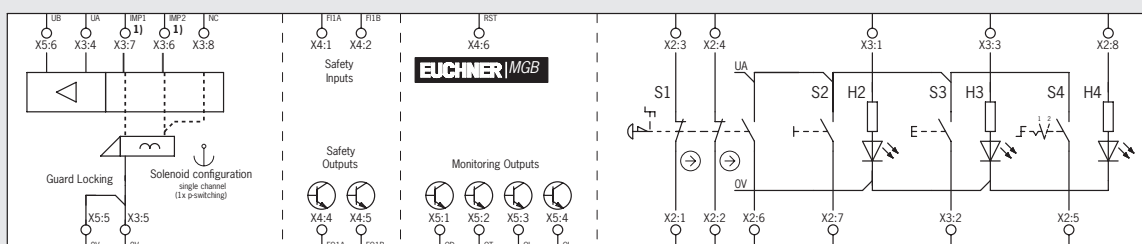
A Plug connector M23



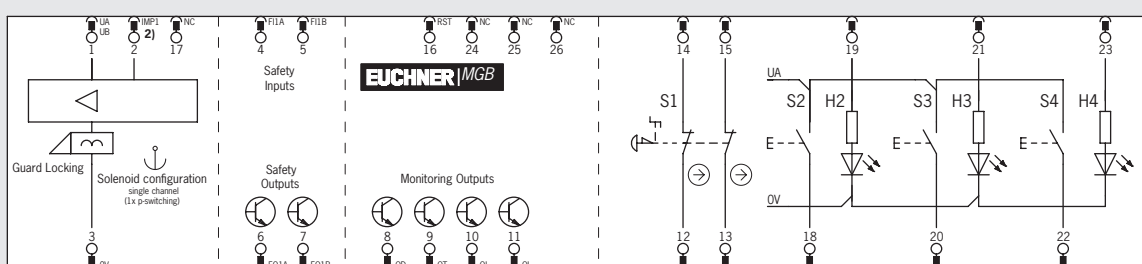
B Cable entry



C Cable entry



D Plug connector RC26



- 1) In the delivery state, IMP1 and IMP2 are bridged with a jumper. For 2-channel control of the solenoid, the jumper must be removed.
- 2) In the delivery state, IMP1 and IMP2 are bridged with a jumper. 2-channel control of the solenoid is not intended for this device.



MGB-AP

MGB-AR

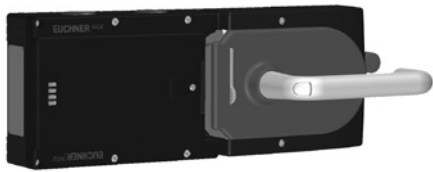
**Locking sets MGB-L2-... (guard locking by solenoid force)
without control or indicator**



Cat.
4
PLe



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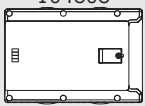
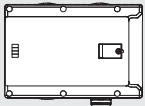
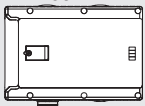


Further information

- ▶ Dimension drawings see p. 49
- ▶ Technical data see p. 48
- ▶ Accessories and spare parts see p. 59
- ▶ www.euchner.com

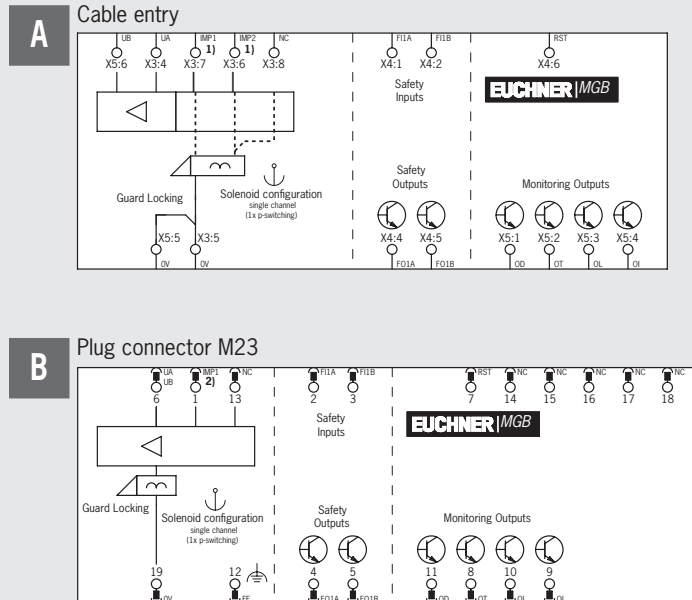
- ▶ Can be connected in series with other AR devices (e.g. CES-AR, CET-AR and CTP-AR)
- ▶ With cable entry or plug connector

Ordering table

Modules in the set									Ordering data, set
Locking module						Handle module Order no. separate module	Escape release Order no. separate module	Door hinge (factory setting)	Order no./item
Version/configuration scheme Order no. separate module	S1 H1	S2 H2	S3 H3	S4 H4	Wiring diagram				
		-	-	-	A		100465		105788 MGB-L2HE-ARR-105788
						100464		right	105786 MGB-L2H-ARR-105786
					B		-		109780 MGB-L2H-ARR-109780
						106619		left	109781 MGB-L2H-AR-L-109781

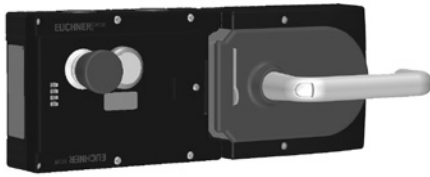


Block diagram



- 1) In the delivery state, IMP1 and IMP2 are bridged with a jumper. For 2-channel control of the solenoid, the jumper must be removed.
- 2) In the delivery state, IMP1 and IMP2 are bridged with a jumper. 2-channel control of the solenoid is not intended for this device.

Locking sets MGB-L2-... (guard locking by solenoid force) with 2 controls or indicators



- ▶ Can be connected in series with other AR devices (e.g. CES-AR, CET-AR and CTP-AR)
- ▶ With cable entry or plug connector
- ▶ Integrated controls and indicators

Details

Guard lock monitoring switched off

As the default setting on delivery, guard lock monitoring is switched off via the internal DIP switches with these evaluation modules. Consequently, the guard locking is suitable only for process protection. Safety outputs FO1A and FO1B do not depend on the state of guard locking.



Notice: Devices affected are marked with this symbol.

Emergency stop with monitoring contact

Additional normally open contact in the emergency stop, e.g. as monitoring contact for the control system.

Lens set

The color of the pushbuttons can be selected using the lens set 120344 included.

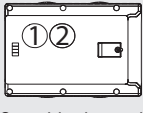
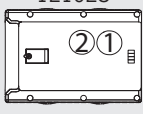
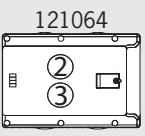
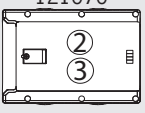
Adhesive labels

Devices with adhesive labels have pre-formed recesses. The adhesive labels enclosed (standard size 12.5 x 27 mm) can be affixed in these recesses.

Further information

- ▶ Dimension drawings see p. 49
- ▶ Technical data see p. 48
- ▶ Accessories and spare parts see p. 59
- ▶ www.euchner.com

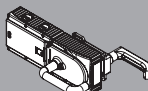
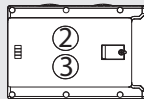
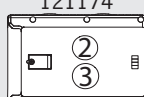
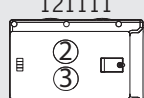
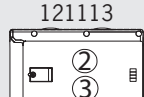
Ordering table

Modules in the set									Ordering data, set
Locking module						Handle module Order no. separate module	Escape release Order no. separate module	Door hinge (factory setting)	Order no./item
Version/configuration scheme Order no. separate module	S1 H1	S2 H2	S3 H3	S4 H4	Wiring diagram				
 121024  Guard lock monitoring switched off, incl. adhesive label						100464		right	121025 MGB-L2H-ARA-R-121025
 121028  Guard lock monitoring switched off, incl. adhesive label		 *)	—	—	A	106619	—	left	121029 MGB-L2H-ARA-L-121029
 121064 						100464	—	right	121065 MGB-L2H-ARA-R-121065
		 *)	 *)	—	B		100465		121066 MGB-L2HE-ARA-R-121066
121070 	—	 *)	 *)			106619	—	left	121071 MGB-L2H-ARA-L-121071
							100465		121072 MGB-L2HE-ARA-L-121072

* The color can be selected using the lens set included.

(Continued on next page)

Ordering table (continued)

Modules in the set									Ordering data, set
 Locking module						 Handle module Order no. separate module	 Escape release Order no. separate module	 Door hinge (factory setting)	 Order no./item
Version/configuration scheme Order no. separate module	S1 H1	S2 H2	S3 H3	S4 H4	Wiring diagram				
 121172 incl. adhesive labels	-	 *)	 *)	-	B	100464	-	right	121173 MGB-L2H-ARA-R-121173
 121174 incl. adhesive labels						106619		left	121175 MGB-L2H-ARA-L-121175
 121111 incl. adhesive labels					C	100464		right	121112 MGB-L2H-ARA-R-121112
 121113 incl. adhesive labels						106619		left	121114 MGB-L2H-ARA-L-121114

* The color can be selected using the lens set included.

MGB-AP

MGB-AR

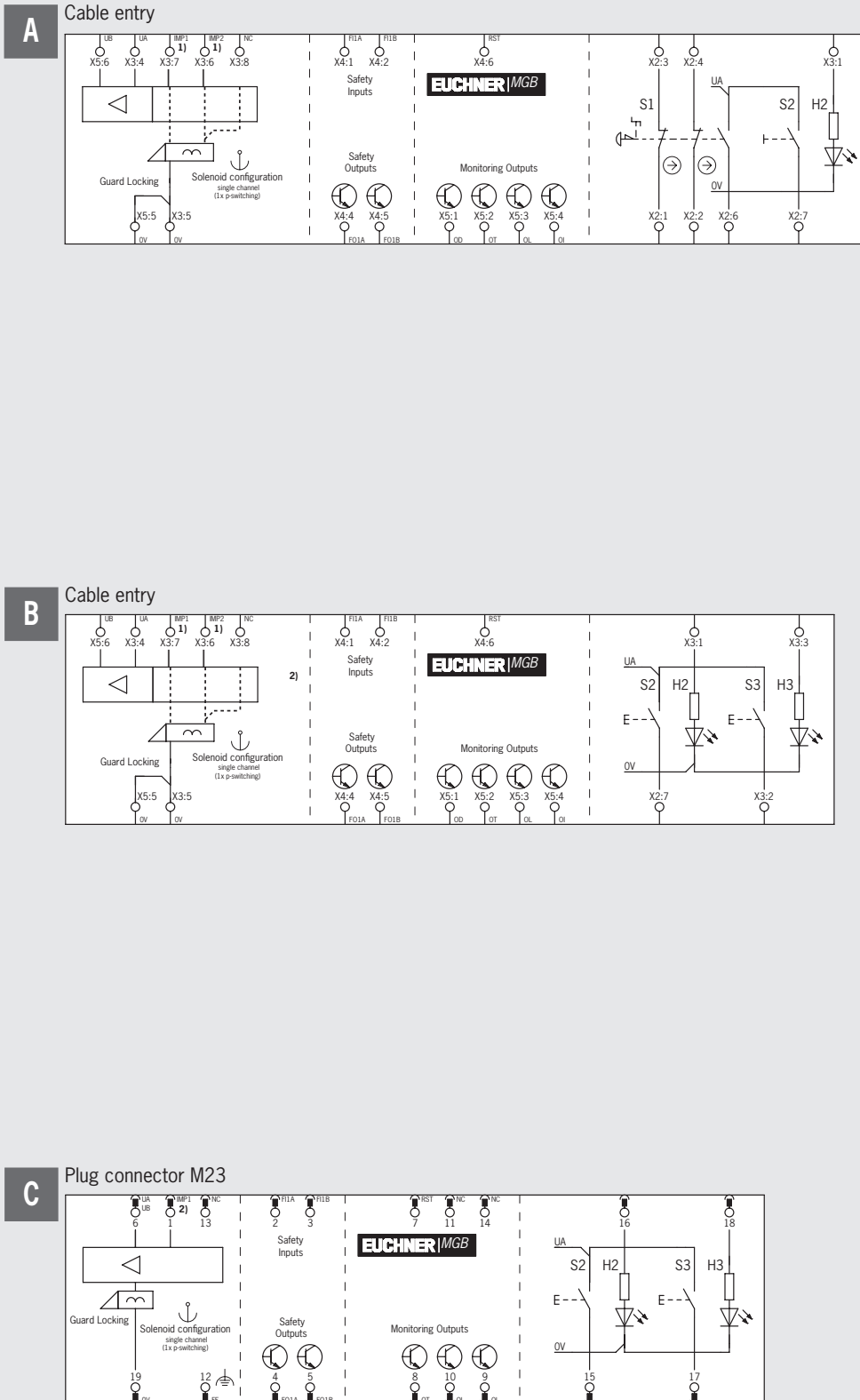
Locking sets MGB-L2-... (guard locking by solenoid force) with 2 controls or indicators



Cat.
4
PLe



Block diagram and wiring diagrams for controls and indicators

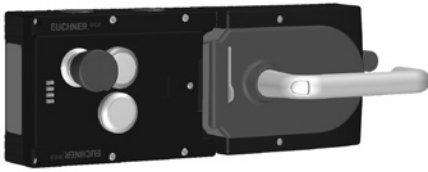


- 1) In the delivery state, IMP1 and IMP2 are bridged with a jumper. For 2-channel control of the solenoid, the jumper must be removed.
2) In the delivery state, IMP1 and IMP2 are bridged with a jumper. 2-channel control of the solenoid is not intended for this device.

Locking sets MGB-L2-... (guard locking by solenoid force) with 3 controls or indicators



Cat.
4
PLe



- ▶ Can be connected in series with other AR devices (e.g. CES-AR, CET-AR and CTP-AR)
- ▶ With cable entry or plug connector
- ▶ Integrated controls and indicators

Details

Emergency stop with monitoring contact

Additional normally open contact in the emergency stop, e.g. as monitoring contact for the control system.

Connection for enabling switch

The devices have an M12 plug connector for the direct connection of an enabling switch (e.g. ZSA, order no. 110560).

Lens set

The color of the pushbuttons can be selected using the lens set 120344 included.

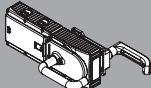
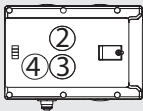
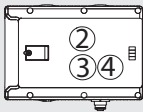
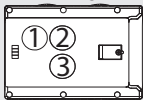
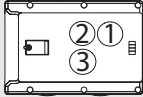
Adhesive labels

Devices with adhesive labels have pre-formed recesses. The adhesive labels enclosed (standard size 12.5 x 27 mm) can be affixed in these recesses.

Further information

- ▶ Dimension drawings see p. 49
- ▶ Technical data see p. 48
- ▶ Accessories and spare parts see p. 59
- ▶ www.euchner.com

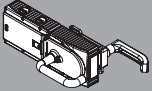
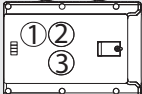
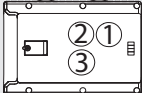
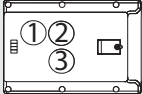
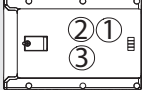
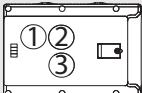
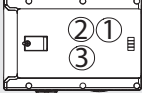
Ordering table

Modules in the set									Ordering data, set	
 Locking module							 Handle module Order no. separate module	 Escape release Order no. separate module	Door hinge (factory setting)	 Order no./item
Version/configuration scheme	S1 H1	S2 H2	S3 H3	S4 H4	Wiring diagram					
 AP	110544  Plug connector M12 for enabling switch, incl. adhesive labels	-	 wh	 ye	 bu	A	100464	-	right	110548 MGB-L2H-APA-R-110548
	110545  Plug connector M12 for enabling switch, incl. adhesive labels						106619		left	110549 MGB-L2H-APA-L-110549
 AR	121237 	 STOP	 *)	 *)	-	B	100464	-	right	121238 MGB-L2H-ARA-R-121238
	121244 						100465			121239 MGB-L2HE-ARA-R-121239
								106619	-	left
								100465		

* The color can be selected using the lens set included.

(Continued on next page)

Ordering table (continued)

Modules in the set									Ordering data, set
 Locking module						 Handle module Order no. separate module	 Escape release Order no. separate module	Door hinge (factory setting)	 Order no./item
Version/configuration scheme Order no. separate module	S1 H1	S2 H2	S3 H3	S4 H4	Wiring diagram				
 121257 incl. adhesive labels		 *)	 *)	-	 B	100464	-	right	121258 MGB-L2H-ARA-R-121258
 121263 incl. adhesive labels						106619		left	121264 MGB-L2H-ARA-L-121264
 110708 incl. adhesive labels		 ye	 wh	-	 C	100464	-	right	110615 MGB-L2H-ARA-R-110615
 110709 incl. adhesive labels						106619		left	110616 MGB-L2H-ARA-L-110616
 121190 incl. adhesive labels		 *)	 *)	-	 D	100464	100465	right	121191 MGB-L2HE-ARA-R-121191
 121194 incl. adhesive labels						106619		left	121195 MGB-L2HE-ARA-L-121195

MGB-AP

MGB-AR

* The color can be selected using the lens set included.

Locking sets MGB-L2-... (guard locking by solenoid force) with 3 controls or indicators



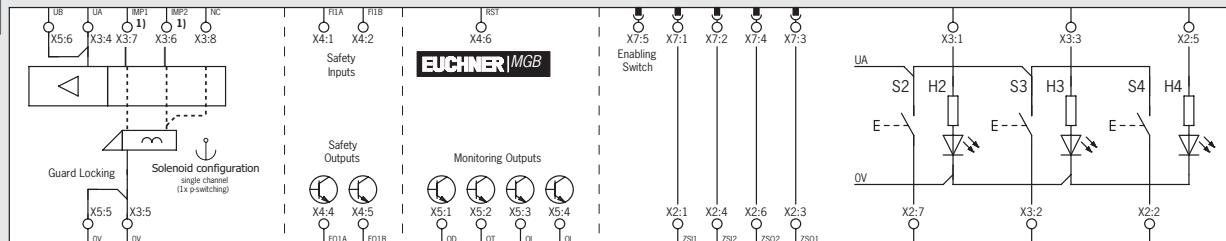
Cat.
4
PLe



Block diagram and wiring diagrams for controls and indicators

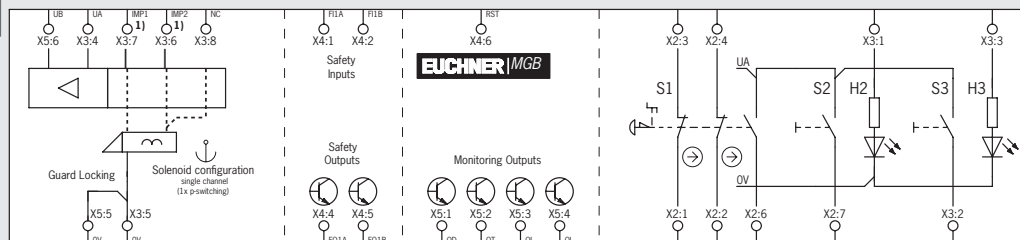
A

Cable entry



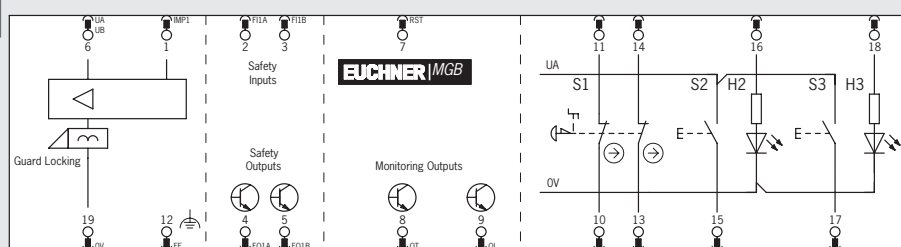
B

Cable entry



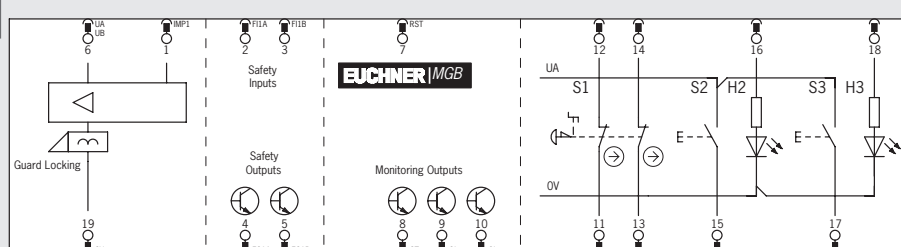
C

Plug connector M23



D

Plug connector M23

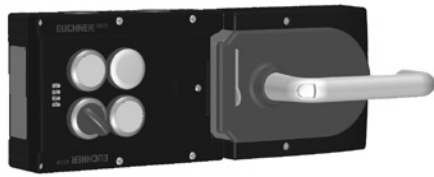


1) In the delivery state, IMP1 and IMP2 are bridged with a jumper. For 2-channel control of the solenoid, the jumper must be removed.

Locking sets MGB-L2-... (guard locking by solenoid force) with 4 controls or indicators



Cat.
4
PLe



Details

Lens set

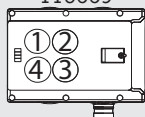
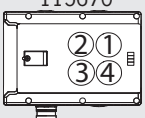
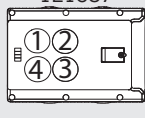
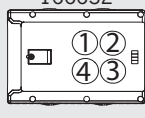
The color of the pushbuttons can be selected using the lens set 120344 included.

Further information

- ▶ Dimension drawings see p. 49
- ▶ Technical data see p. 48
- ▶ Accessories and spare parts see p. 59
- ▶ www.euchner.com

- ▶ Can be connected in series with other AR devices (e.g. CES-AR, CET-AR and CTP-AR)
- ▶ With cable entry or plug connector
- ▶ Integrated controls and indicators

Ordering table

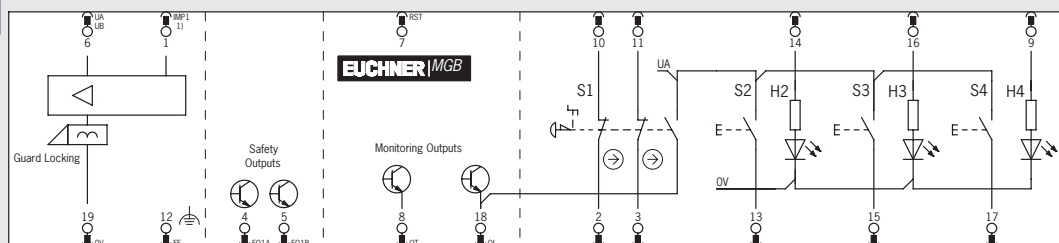
Modules in the set										Ordering data, set
Locking module						Handle module Order no. separate module	Escape release Order no. separate module	Door hinge (factory setting)	Order no./item	
Version/configuration scheme Order no. separate module		S1 H1	S2 H2	S3 H3	S4 H4	Wiring diagram				
	115669 						100464	-	right	115673 MGB-L2H-APA-R-115673
	115670 		gn	wh	wh		106619		left	115674 MGB-L2H-APA-L-115674
	121387 						111157	-	right	121388 MGB-L2H-ARA-R-121388
	166632 		*)	*)	*)		111158		left	166634 MGB-L2H-ARA-L-166634

* The color can be selected using the lens set included.

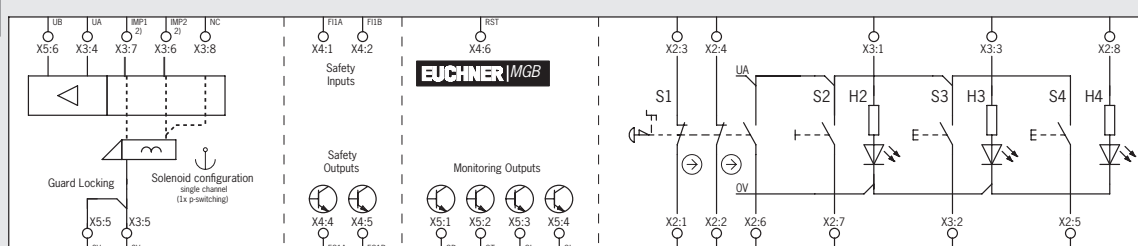


Block diagram and wiring diagrams for controls and indicators

A Plug connector M23



B Cable entry



- 1) In the delivery state, IMP1 and IMP2 are bridged with a jumper. 2-channel control of the solenoid is not intended for this device.
- 2) In the delivery state, IMP1 and IMP2 are bridged with a jumper. For 2-channel control of the solenoid, the jumper must be removed.

Technical data

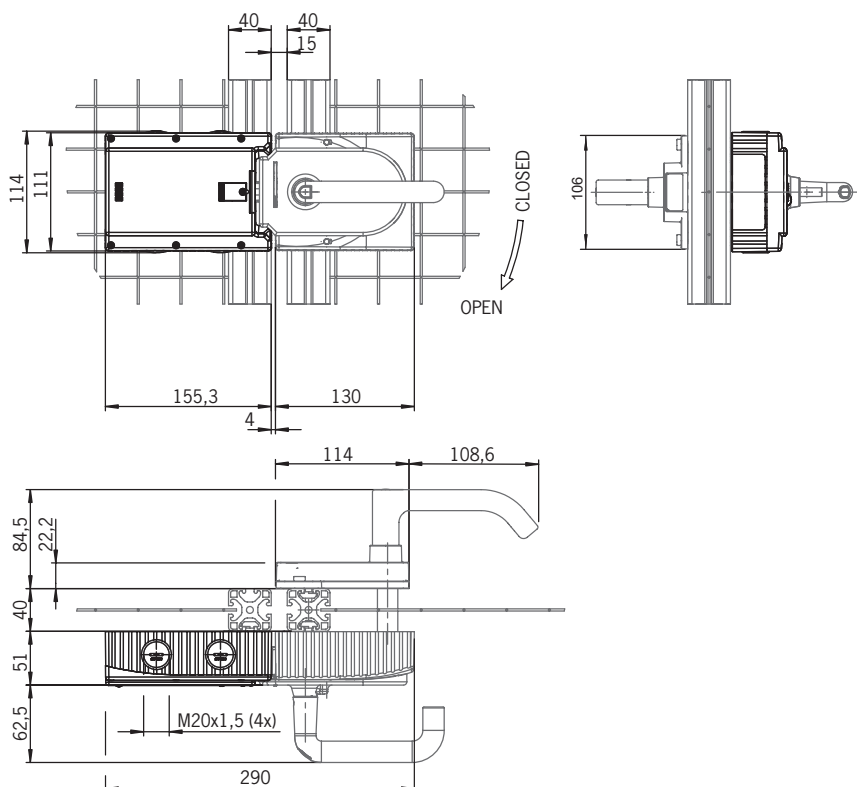
Parameter	Value	Unit
Housing material	Fiber glass reinforced plastic die-cast zinc, nickel plated Stainless steel	
Dimensions	See dimension drawing	
Ambient temperature at $U_B = DC\ 24\ V$	-20 ... +55	°C
Degree of protection		
Cover not populated/populated with pushbuttons/ indicators	IP65 IP54	
Cover populated with key-operated switch		
Safety class	III	
Degree of contamination	3	
Installation position	Any	
Locking force F_{zh} acc. to GS-ET-19	2000	N
Connection	4 cable entries M20x1.5 or plug connector	
Conductor cross-section (rigid/flexible)	0.13 ... 1.5 (AWG 24 ... AWG 16)	
- With ferrule according to DIN 46 228/1	0.25 ... 1.5	mm ²
- With ferrule with collar according to DIN 46228/1	0.25 ... 0.75	
Operating voltage U_B (reverse polarity protected, regulated, residual ripple < 5%)	24 +10%/-15% (PELV)	V DC
Auxiliary voltage U_A (reverse polarity protected, regulated, residual ripple < 5%)	24 +10%/-15% (PELV)	V DC
Current consumption I_{UB} (no load on any outputs)	80	mA
Current consumption I_{UA} - With energized guard locking solenoid and unloaded outputs OI, OL, OT and OD - Pushbutton S (unloaded, per LED)	375 5	mA
External fuse	See operating instructions	
Safety outputs F01A/F01B	Semiconductor outputs, p-switching, short circuit-proof	
Test pulses	AR < 1,000 / AP < 300	µs
Test pulse interval	Min. 100	ms
Output voltage $U_{F01A}/U_{F01B}^{1)}$		
HIGH U_{F01A}/U_{F01B}	$U_B - 2V ... U_B$	V DC
LOW U_{F01A}/U_{F01B}	0 ... 1	
Switching current per safety output	1 ... 200	mA
Utilization category acc. to EN IEC 60947-5-2	DC-13 24 V 200 mA Caution: outputs must be protected with a free-wheeling diode in case of inductive loads.	
Monitoring outputs - Output voltage $^{1)}$ - Max. load	p-switching, short circuit-proof $U_A - 2V ... U_A$ Max. 50	mA
Rated insulation voltage U_i	30	V
Rated impulse withstand voltage U_{imp}	1.5	kV
Resilience to vibration	Acc. to EN IEC 60947-5-3	
Switching frequency	0.25	Hz
EMC protection requirements	Acc. to EN IEC 60947-5-3	
Reliability values acc. to EN ISO 13849-1	Guard lock monitoring	Control of guard locking
Category	4	4
Performance Level	PL e	PL e
PFH_D	$3.7 \times 10^{-9}/h^{2)}$	$2.8 \times 10^{-9}/h^{2)}$
Mission time	20	20
Mechanical life	1×10^6	
- In case of use as door stop, and 1 Joule impact energy	0.1×10^6	
B_{10D} (emergency stop)	0.065×10^6	
Emergency stop		
Operating voltage	5 ... 24	V
Operating current	1 ... 100	mA
Breaking capacity, max.	250	mW
Power supply LED	24	V DC
Controls and indicators		
Operating voltage	UA	V
Operating current	1 ... 10	mA
Breaking capacity, max.	250	mW
Power supply LED	24	V DC

1) Values at a switching current of 50 mA without taking into account the cable lengths.

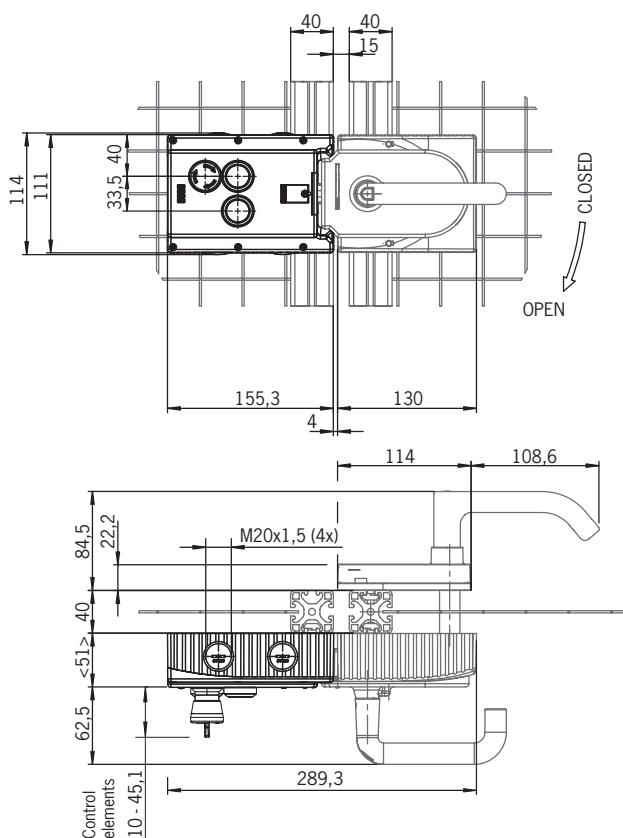
2) Applying the limit value from EN ISO 13849-1:2008, section 4.5.2 ($MTTF_g = \max. 100\ years$), the employers' liability insurance association certifies a PFH_g of max. 2.47×10^{-8} .

Dimension drawings

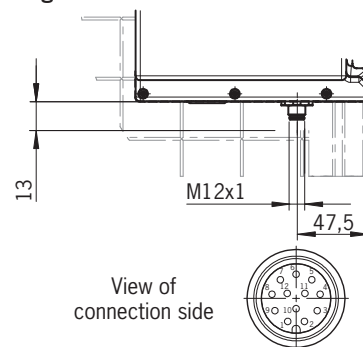
► MGB-... without additional controls and indicators



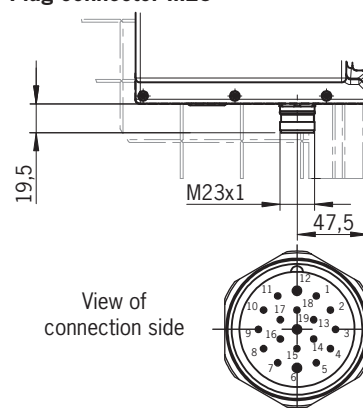
► MGB-... with additional controls and indicators



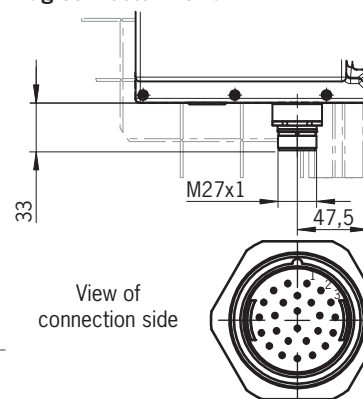
► Plug connector M12



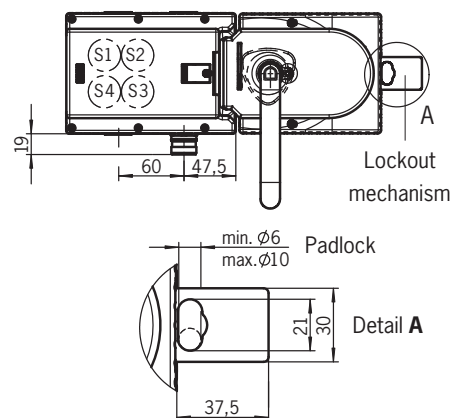
► Plug connector M23



► Plug connector RC26



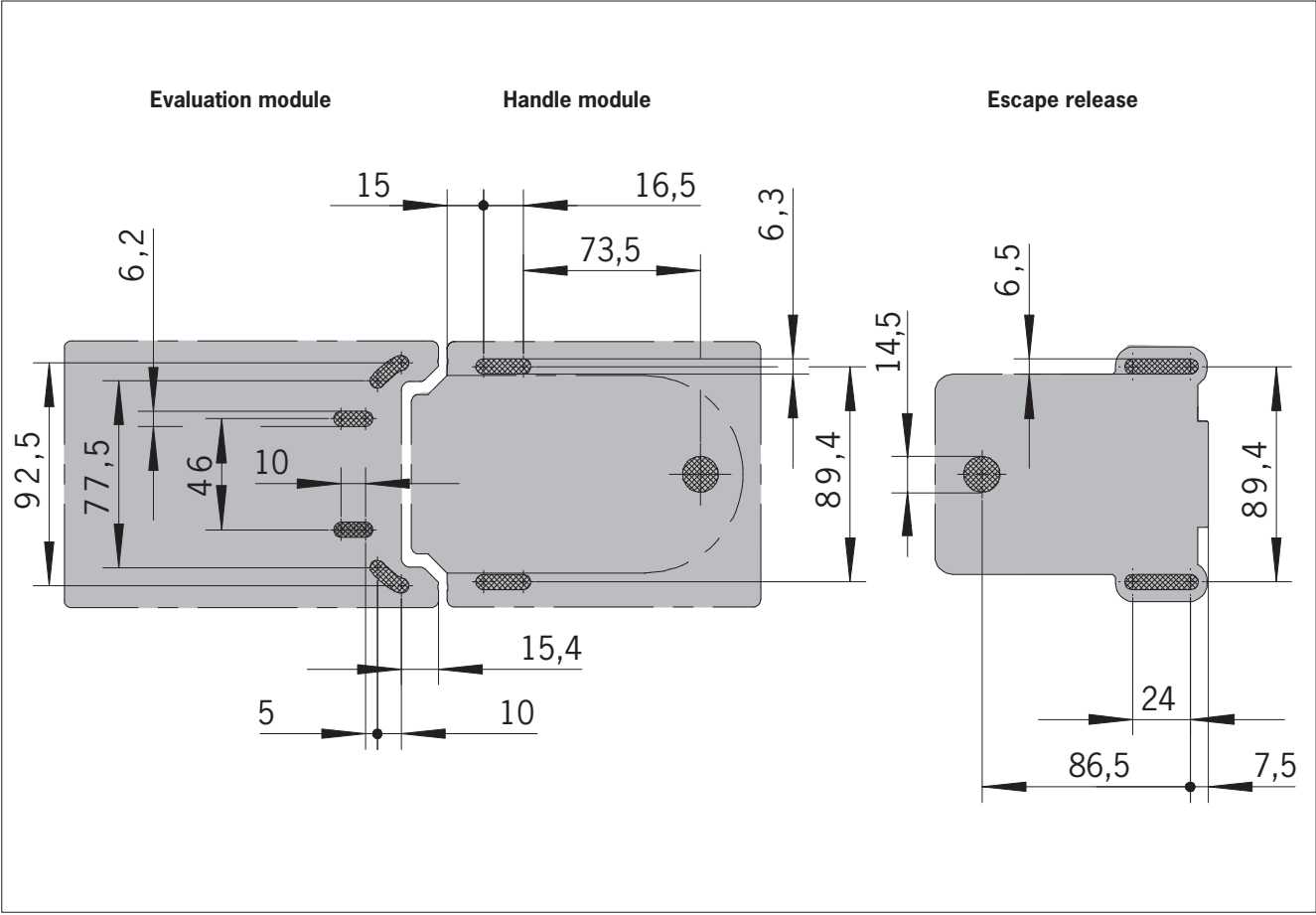
► Dimensions with plug connector M23 and automatically extending lockout mechanism (optional)



MGB-AP

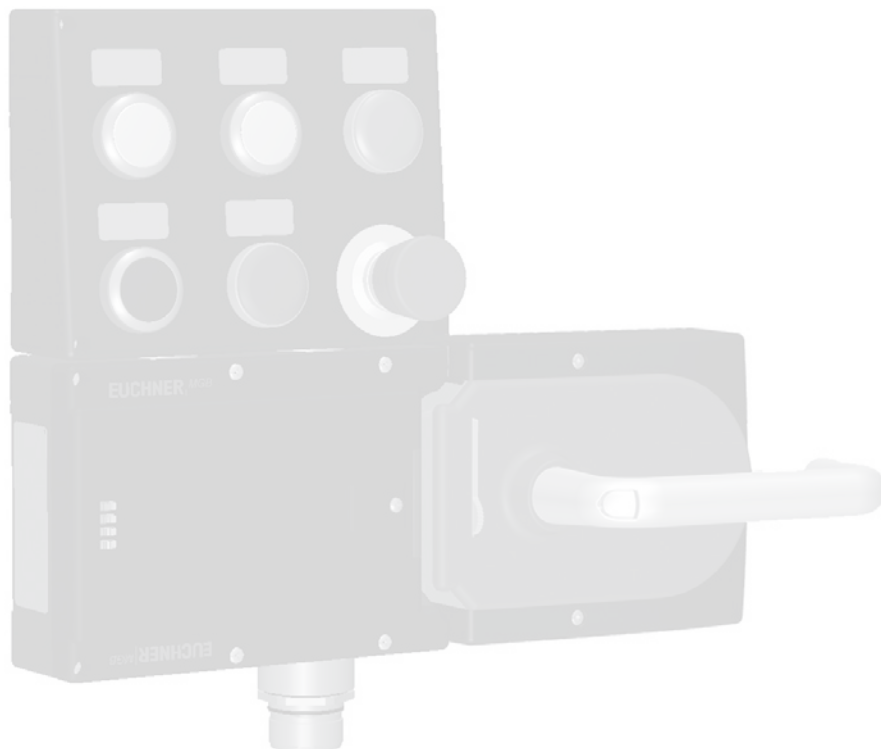
MGB-AR

Drilling pattern



Complete sets system family MGB-AR with control module MGB-C

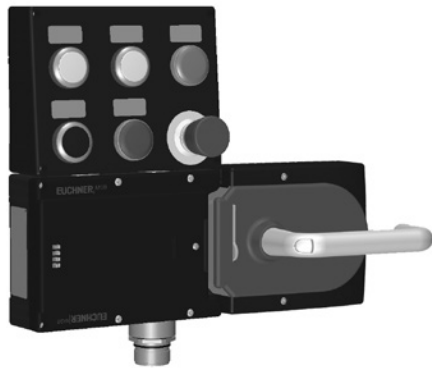
- ▶ Interlocking or guard locking with handle module
- ▶ With pushbuttons and emergency stop
- ▶ With plug connectors



MGB-AR

Locking sets MGB-L1C-AR... (guard locking by spring force)	52
with 6 controls and indicators	52
Locking sets MGB-L2C-AR... (guard locking by solenoid force)	54
with 6 controls and indicators	54
Technical data	56
Dimension drawings	57

Locking sets MGB-L1C-AR... (guard locking by spring force) with 6 controls or indicators



Details

Adhesive labels

Devices with adhesive labels have pre-formed recesses. The adhesive labels enclosed (standard size 12.5 x 27 mm) can be affixed in these recesses.

Emergency stop with monitoring contact

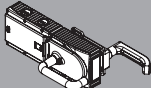
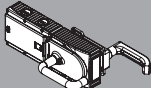
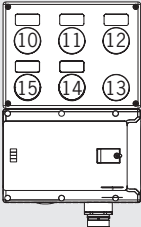
Additional normally open contact in the emergency stop, e.g. as monitoring contact for the control system.

Further information

- Dimension drawings see p. 57
- Technical data see p. 56
- Accessories and spare parts see p. 59
- www.euchner.com

- With control module MGB-C
- Can be connected in series with other AR devices (e.g. CES-AR, CET-AR and CTP-AR)
- With plug connector

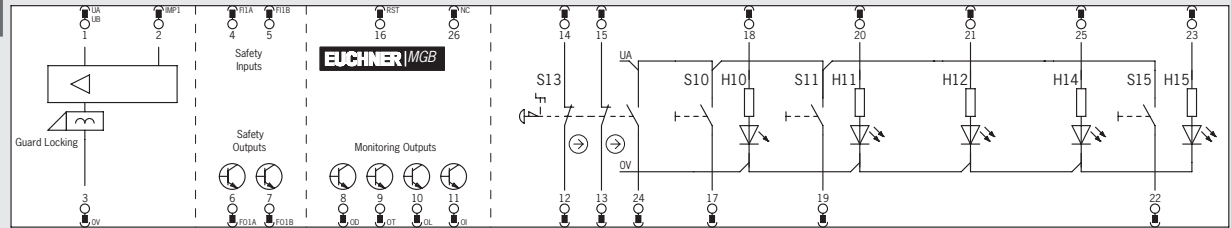
Ordering table

Modules in the set											Ordering data, set
Locking module with control module								 Handle module Order no. separate module	 Escape release Order no. separate module	 Door hinge (factory setting)	 Order no./item
Version/configuration scheme Order no. separate module	S10 H10	S11 H11	S12 H12	S13 H13	S14 H14	S15 H15	Wiring diagram				
 109798 incl. adhesive labels								111157		right	109806 MGB-L1HC-ARA-R-109806
 109799 incl. adhesive labels							A	111158	-	left	109807 MGB-L1HC-ARA-L-109807

Block diagram

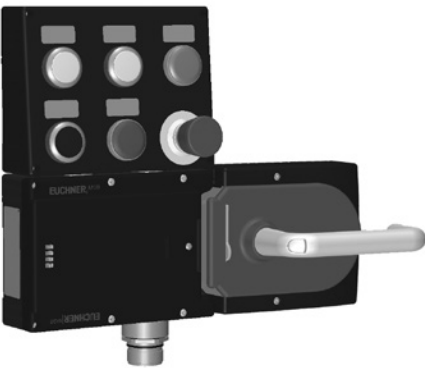
A

Plug connector RC26



MGB-AR

Locking sets MGB-L2C-AR... (guard locking by solenoid force) with 6 controls or indicators



Details

Adhesive labels

Devices with adhesive labels have pre-formed recesses. The adhesive labels enclosed (standard size 12.5 x 27 mm) can be affixed in these recesses.

Emergency stop with monitoring contact

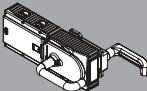
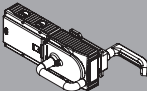
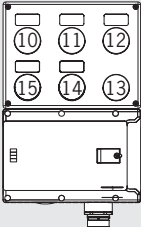
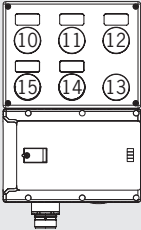
Additional normally open contact in the emergency stop, e.g. as monitoring contact for the control system.

Further information

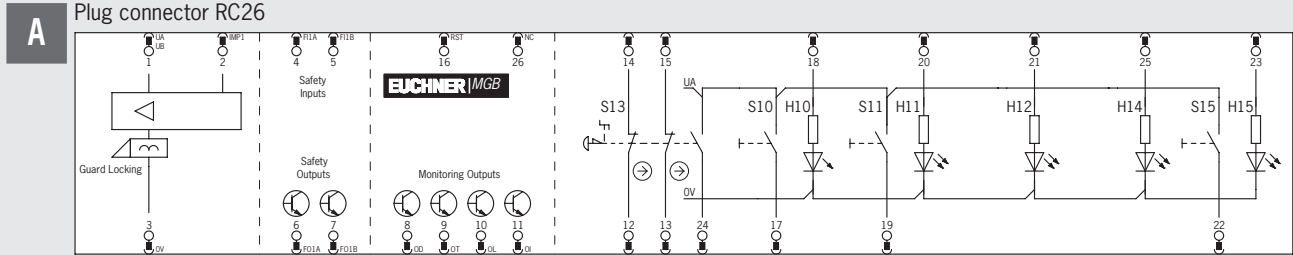
- Dimension drawings see p. 57
- Technical data see p. 56
- Accessories and spare parts see p. 59
- www.euchner.com

- With control module MGB-C
- Can be connected in series with other AR devices (e.g. CES-AR, CET-AR and CTP-AR)
- With plug connector

Ordering table

Modules in the set											Ordering data, set
Locking module with control module								 Handle module Order no. separate module	 Escape release Order no. separate module	 Door hinge (factory setting)	 Order no./item
Version/configuration scheme Order no. separate module	S10 H10	S11 H11	S12 H12	S13 H13	S14 H14	S15 H15	Wiring diagram				
 incl. adhesive labels								111157		right	112531 MGB-L2HC-ARA-R-112531
 incl. adhesive labels	 wh	 wh	 gn	 STOP	 rd	 bu	 A	111158	-	left	112532 MGB-L2HC-ARA-L-112532

Block diagram



Technical data

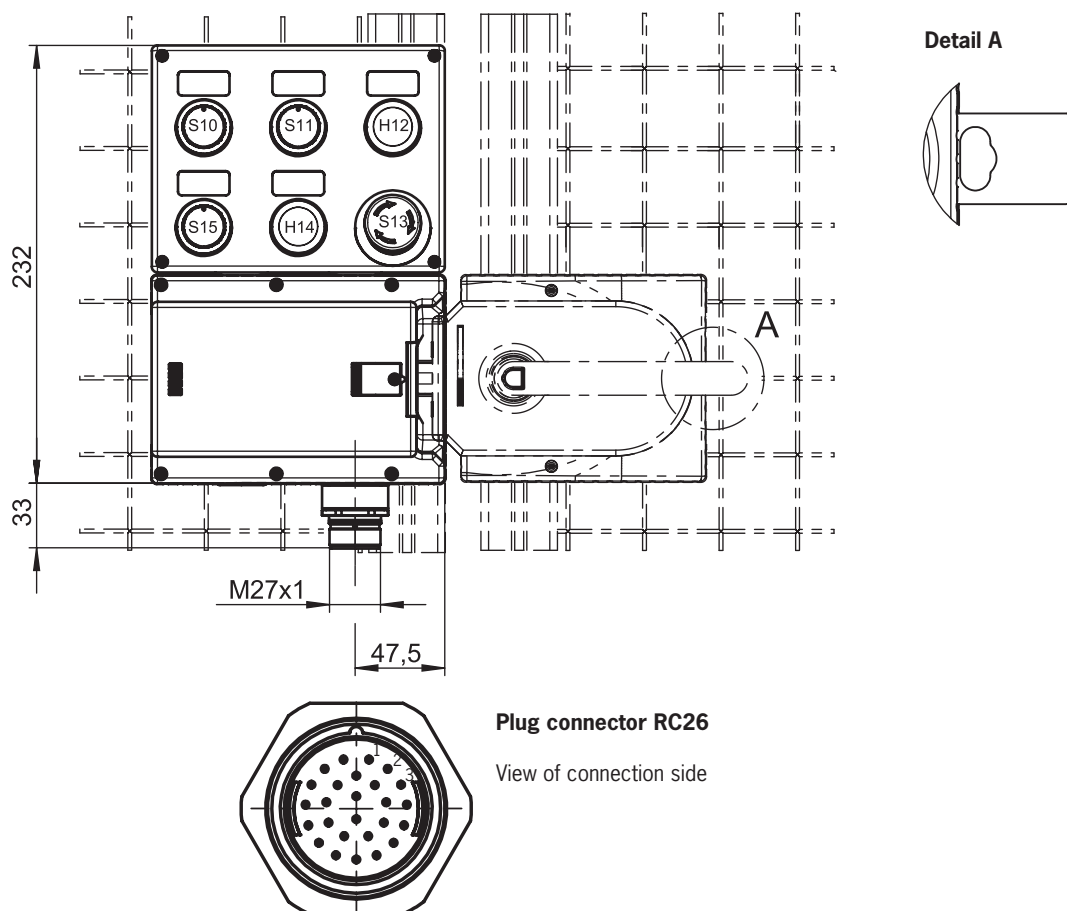
Parameter	Value	Unit
Housing material	Fiber glass reinforced plastic die-cast zinc, nickel plated Stainless steel	
Dimensions	See dimension drawing	
Ambient temperature at $U_B = DC\ 24\ V$	-20 ... +55	°C
Degree of protection		
Cover not populated/populated with pushbuttons/ indicators	IP65 IP54	
Cover populated with key-operated switch		
Safety class	III	
Degree of contamination	3	
Installation position	Any	
Locking force F_{zh} acc. to GS-ET-19	2000	N
Connection	4 cable entries M20x1.5 or plug connector	
Conductor cross-section (rigid/flexible)	0.13 ... 1.5 (AWG 24 ... AWG 16)	
- With ferrule according to DIN 46 228/1	0.25 ... 1.5	mm ²
- With ferrule with collar according to DIN 46228/1	0.25 ... 0.75	
Operating voltage U_B (reverse polarity protected, regulated, residual ripple < 5%)	24 +10%/-15% (PELV)	V DC
Auxiliary voltage U_A (reverse polarity protected, regulated, residual ripple < 5%)	24 +10%/-15% (PELV)	V DC
Current consumption I_{UB} (no load on any outputs)	80	mA
Current consumption I_{UA} - With energized guard locking solenoid and unloaded outputs OI, OL, OT and OD - Pushbutton S (unloaded, per LED)	375 5	mA
External fuse	See operating instructions	
Safety outputs F01A/F01B	Semiconductor outputs, p-switching, short circuit-proof	
Test pulses	AR < 1,000 / AP < 300	µs
Test pulse interval	Min. 100	ms
Output voltage $U_{F01A}/U_{F01B}^{1)}$		
HIGH U_{F01A}/U_{F01B}	$U_B - 2V \dots U_B$	V DC
LOW U_{F01A}/U_{F01B}	0 ... 1	
Switching current per safety output	1 ... 200	mA
Utilization category acc. to EN IEC 60947-5-2	DC-13 24 V 200 mA Caution: outputs must be protected with a free-wheeling diode in case of inductive loads.	
Monitoring outputs - Output voltage ¹⁾ - Max. load	p-switching, short circuit-proof $U_A - 2V \dots U_A$ Max. 50	mA
Rated insulation voltage U_i	30	V
Rated impulse withstand voltage U_{imp}	1.5	kV
Resilience to vibration	Acc. to EN IEC 60947-5-3	
Switching frequency	0.25	Hz
EMC protection requirements	Acc. to EN IEC 60947-5-3	
Reliability values acc. to EN ISO 13849-1	Guard lock monitoring	Control of guard locking
Category	4	4
Performance Level	PL e	PL e
PFH_D	$3.7 \times 10^{-9}/h^{2)}$	$2.8 \times 10^{-9}/h^{2)}$
Mission time	20	20
Mechanical life	1×10^6	
- In case of use as door stop, and 1 Joule impact energy	0.1×10^6	
B_{10D} (emergency stop)	0.065×10^6	
Emergency stop		
Operating voltage	5 ... 24	V
Operating current	1 ... 100	mA
Breaking capacity, max.	250	mW
Power supply LED	24	V DC
Controls and indicators		
Operating voltage	UA	V
Operating current	1 ... 10	mA
Breaking capacity, max.	250	mW
Power supply LED	24	V DC

1) Values at a switching current of 50 mA without taking into account the cable lengths.

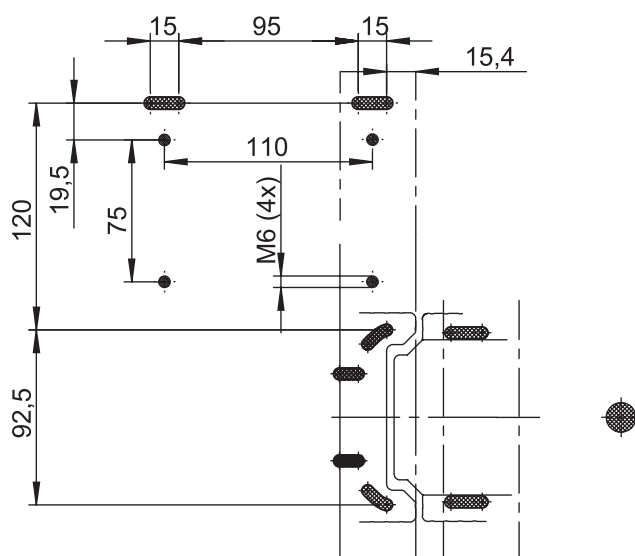
2) Applying the limit value from EN ISO 13849-1:2008, section 4.5.2 ($MTTF_d = \max. 100$ years), the employers' liability insurance association certifies a PFH_d of max. 2.47×10^{-8} .

Dimension drawings

► MGB-L.HC-AR

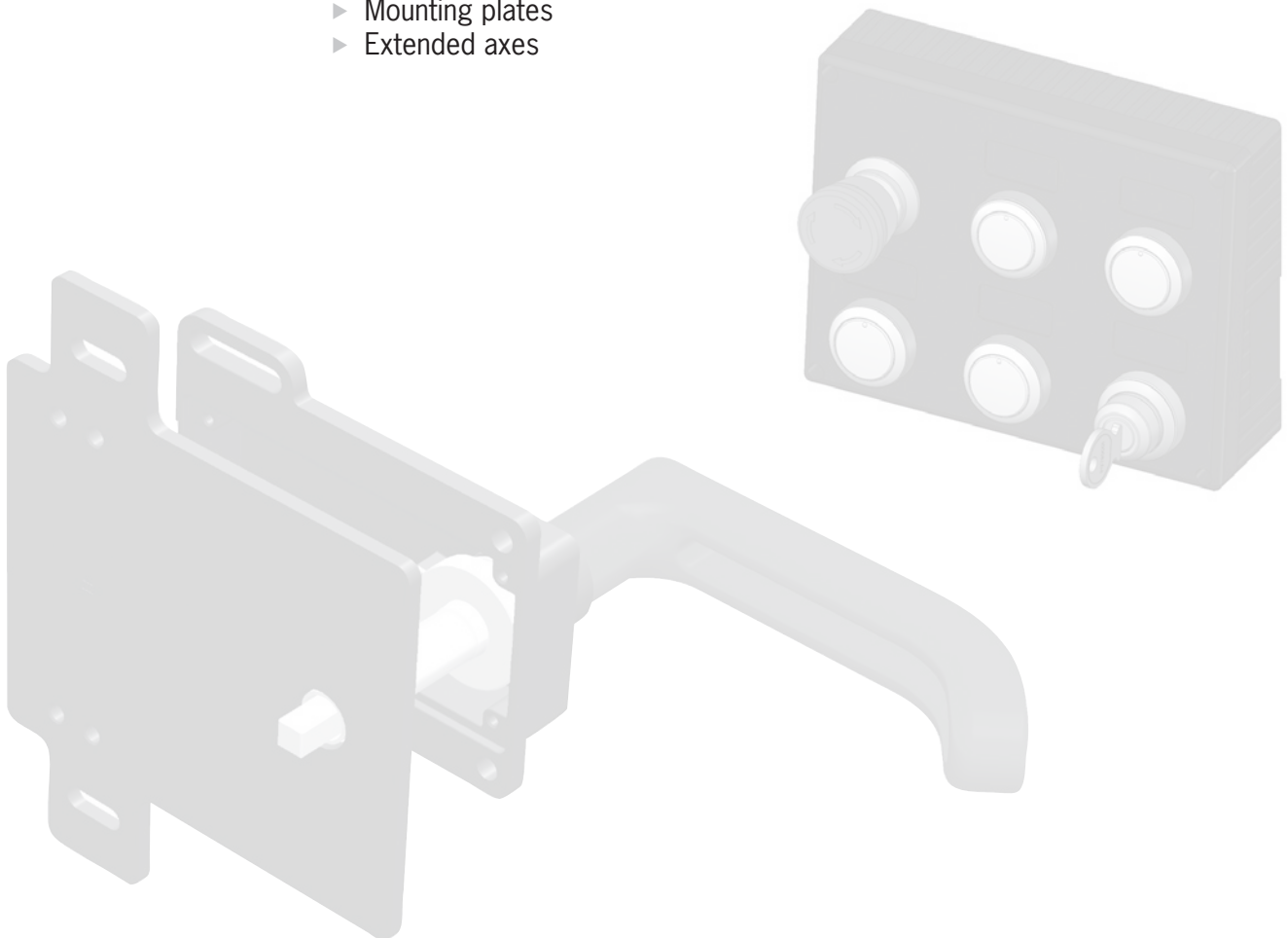


Drilling pattern



Accessories and spare parts for all MGB families

- ▶ Plug connectors and cables
- ▶ Emergency release for auxiliary release
- ▶ Adhesive labels
- ▶ Mounting plates
- ▶ Extended axes



Handle module MGB-H...	60 - 62
Escape release MGB-E...	64
Emergency release for auxiliary release / adhesive labels	66
Lens sets	67
Mounting plates for modules MGB-...-AR and MGB-...-AP	68 - 69
Plug connectors/ connecting cables	70 - 73
Control modules MGB-C	74 - 80
Dimension drawing and configuration example	76
Overview, controls and indicators	77
Combination options	78
Spare parts and accessories	79
Technical data	80

Handle module MGB-H-... (from V3.0.0)



- ▶ Intelligent bolt tongue with transponder
- ▶ Fold-out lockout mechanism
- ▶ Door handle



Bolt tongue

The bolt tongue is safely detected by a transponder as soon as it is inserted into the evaluation module.

Lockout mechanism (fold-out)

For cleaning and service on the machine, the bolt tongue can be locked with max. 3 padlocks. The lockout mechanism is simply folded out and prevents the operation of the handle.

Door handle

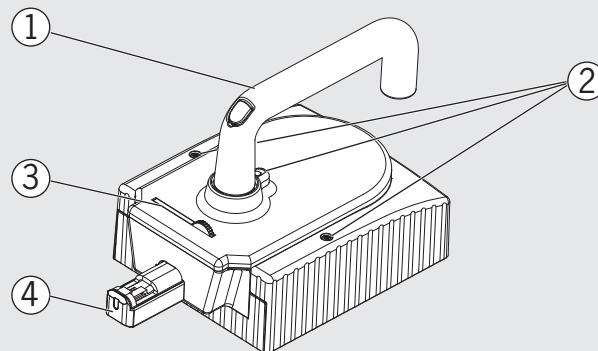
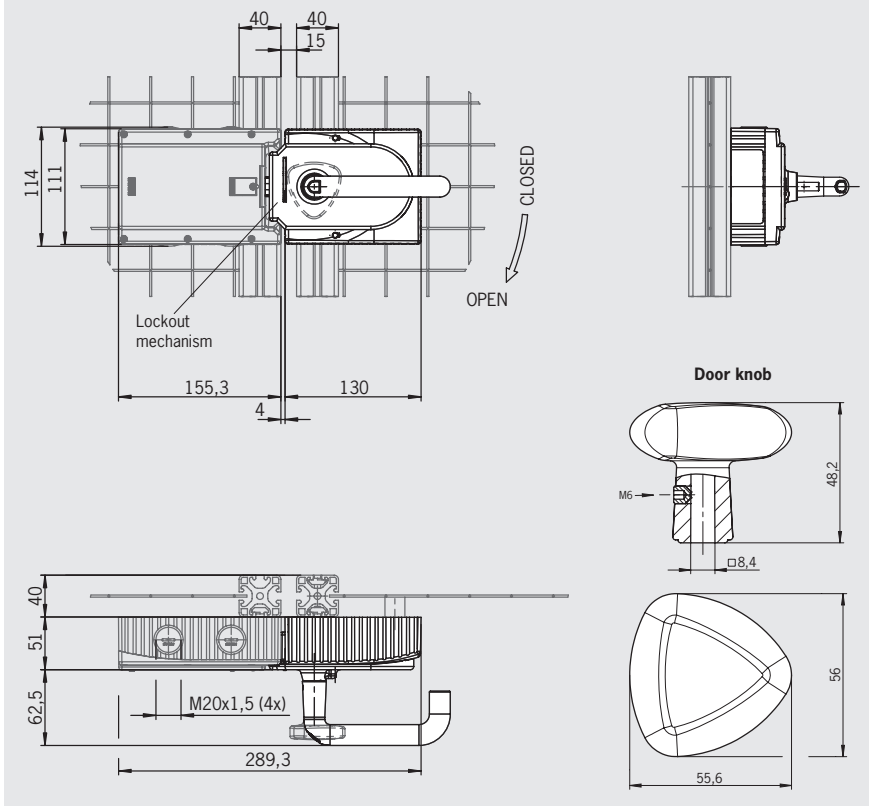
The MGB has a robust door handle that can be rotated in 90° steps to suit all installations. The actuating direction can be changed very easily for doors hinged on the left or right.

Door knob

As an alternative to the door handle, the handle module can also be equipped with a door knob.

Handle module MGB-H-... (from V3.0.0) with fold-out lockout mechanism

Dimension drawing (diagram shows door hinged on the right)



Scope of delivery:

- ① Door handle
- ② Locking pins for housing cover and handle adjustment
- ③ Lockout mechanism
- ④ Bolt tongue

Ordering table handle module from V3.0.0

Series	Version	Order no./item
MGB-H... Handle module right	With door handle and fold-out lockout mechanism, black housing with red cover	100464 MGB-HAA1A1-R-100464
	With door handle and fold-out lockout mechanism, can be locked using escape release , black housing with red cover	114655 MGB-HAA1B1-R-114655
	With door knob and fold-out lockout mechanism, black housing with red cover	113201 MGB-HAA1A7-R-113201
MGB-H... Handle module left	With door handle and fold-out lockout mechanism, black housing with red cover	106619 MGB-HAA1A1-L-106619
	With door handle and fold-out lockout mechanism, can be locked using escape release , black housing with red cover	114656 MGB-HAA1B1-L-114656
	With door knob and fold-out lockout mechanism, black housing with red cover	121478 MGB-HAA1A7-L-121478
Door handle Aluminum, silver anodized	From MGB-H V3.0.0	123926 MGB-A-DOORHANDLE-S2-123926
Door knob Aluminum, silver anodized	From MGB-H V3.0.0	124030 MGB-A-DOORKNOB-S2-124030

Handle module MGB-H... with automatically extending lockout mechanism (from V3.0.0)



- ▶ Intelligent bolt tongue with transponder
- ▶ Fold-out lockout mechanism (as on standard version)
- ▶ Second automatically extending lockout mechanism
- ▶ Door handle

**Bolt tongue**

The bolt tongue is safely detected by a transponder as soon as it is inserted into the evaluation module.

Lockout mechanism (automatically extending and fold-out)

For cleaning and service on the machine, the bolt tongue can be locked with max. 3 padlocks. The lockout mechanism extends automatically on the actuation of the handle and prevents the operation of the handle in the safe state. In addition, the fold-out lockout mechanism can be used.

Door handle

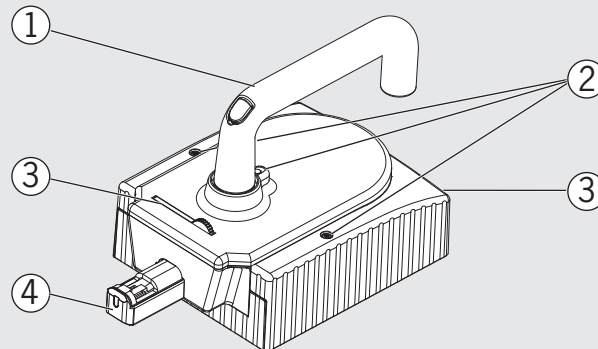
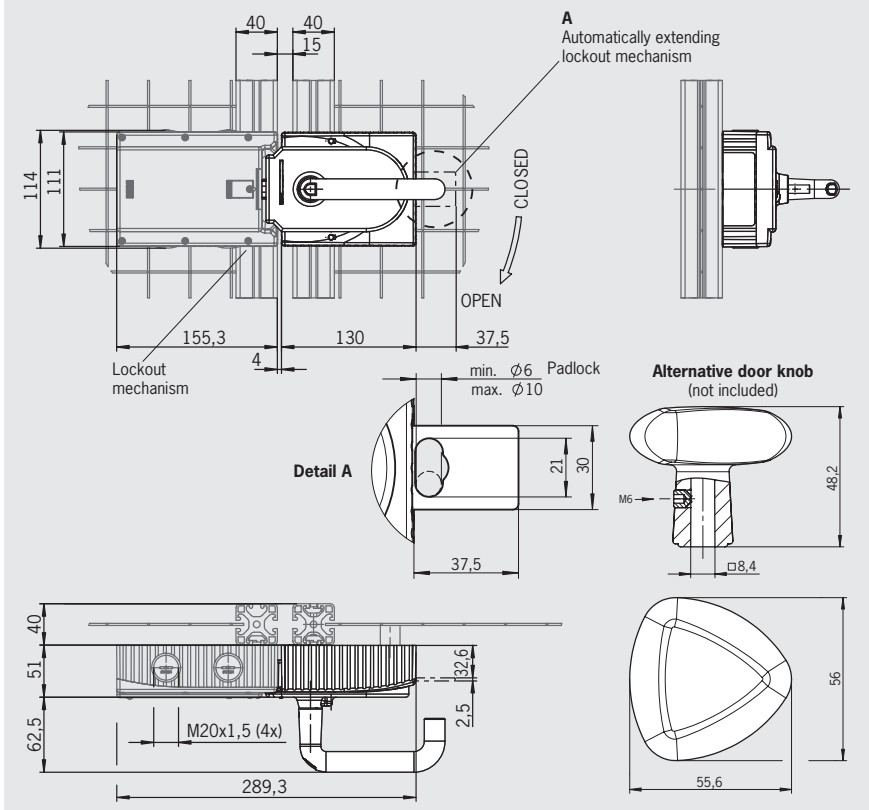
The MGB has a robust door handle that can be rotated in 90° steps to suit all installations. The actuating direction can be changed very easily for doors hinged on the left or right.

Door knob

As an alternative to the door handle, the handle module can also be equipped with a door knob.

Handle module MGB-H... (from V3.0.0)
with automatically extending lockout mechanism

Dimension drawing (diagram shows door hinged on the right)



Scope of delivery:

- ① Door handle
- ② Locking pins for housing cover and handle adjustment
- ③ Lockout mechanism
- ④ Bolt tongue

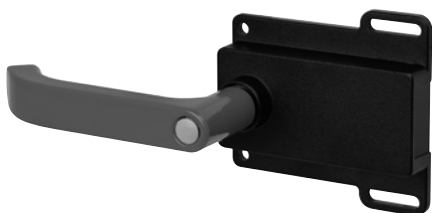
Ordering table

Series	Version	Order no./item
MGB-H... Handle module right	With fold-out and also second automatically extending lockout mechanism, black housing with red cover	111157 MGB-H-AA1A3-R-111157
	With door handle and fold-out lockout mechanism, can be locked using escape release , black housing with red cover	116813 MGB-H-AA1B2-R-116813
MGB-H... Handle module left	With fold-out and also second automatically extending lockout mechanism, black housing with red cover	111158 MGB-H-AA1A3-L-111158
	With door handle and fold-out lockout mechanism, can be locked using escape release , black housing with red cover	116814 MGB-H-AA1B2-L-116814
Door handle Aluminum, silver anodized	From MGB-H V3.0.0	123926 MGB-A-DOORHANDLE-S2-123926
Door knob Aluminum, silver anodized	From MGB-H V3.0.0	124030 MGB-A-DOORKNOB-S2-124030

Escape release module MGB-E... (from V2.0.0)



► Door handle red



Escape release

The safety system MGB can be equipped with an escape release module. The escape release enables people shut in to open the guard locked door from the danger area. It is only necessary to actuate the door handle.

The actuating direction automatically adapts to the actuating direction of the handle module and does not need to be changed.

The actuation axis supplied is suitable for profiles up to 40 mm.

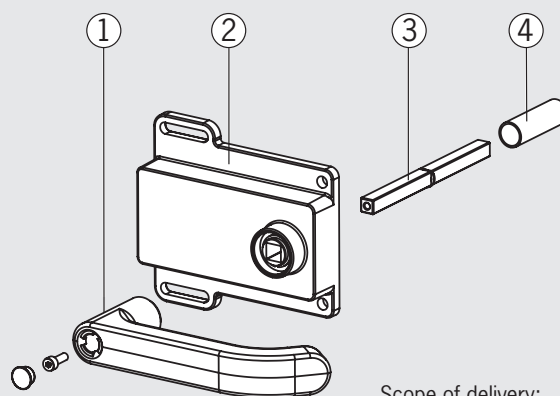
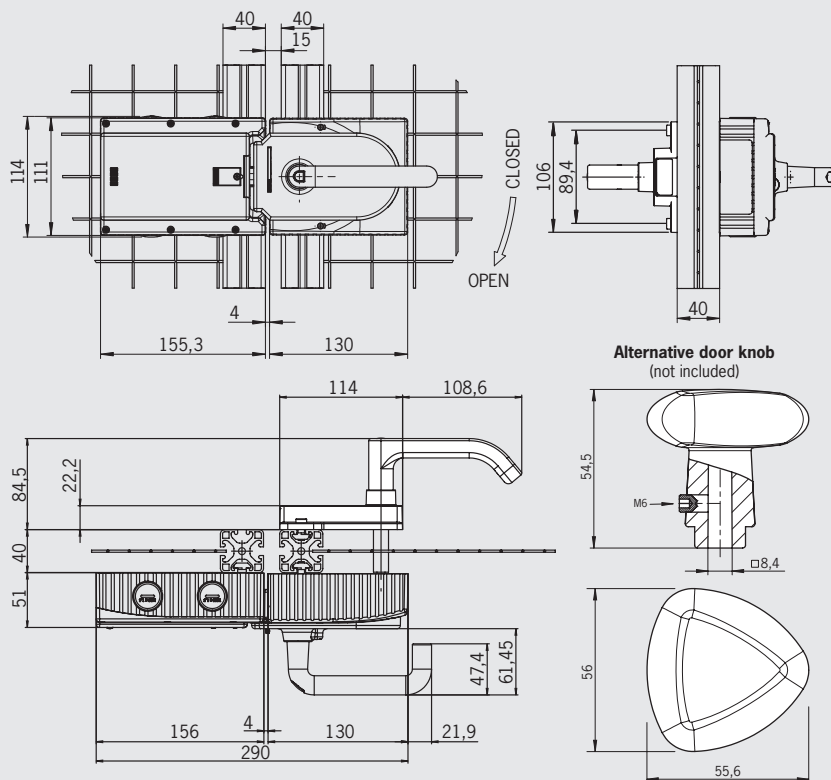
Extended actuation axis

Optionally, a 250 mm (instead of 107 mm) long actuation axis 106761 can be ordered for thicker doors or profiles > 40 mm.

The axis can be shortened to the required dimension.

Escape release module MGB-E...

Dimension drawing (diagram shows door hinged on the right)



Scope of delivery:

- ① Door handle or door knob
- ② Cover
- ③ Actuation axis, square 8x8 mm
- ④ Protective sleeve, 52 mm long

Ordering table

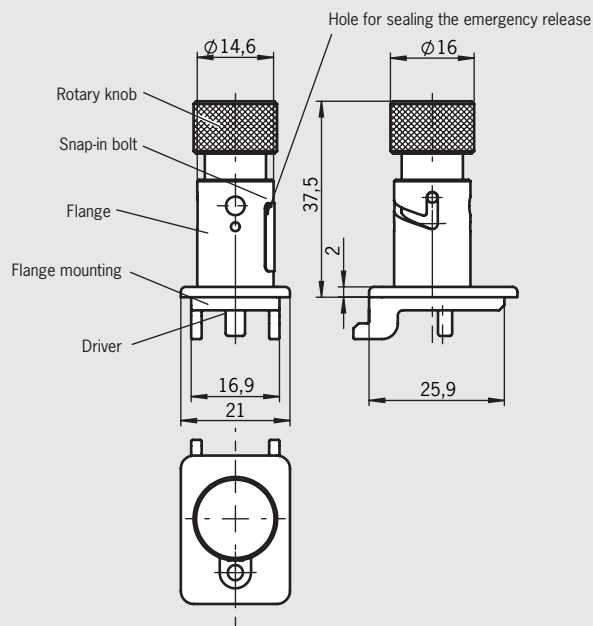
Series / designation	Version	Order no./item
MGB-E... escape release	With red handle, actuation axis 107 mm long, for doors or profiles up to 40 mm thick	100465 MGB-E-A-100465
	With red handle, actuation axis 112 mm long, for doors or profiles up to 45 mm thick	163885 MGB-E-A4-163885
	With red handle, actuation axis 115 mm long, mount- ing plate pre-assembled, for doors or profiles up to 40 mm thick	106051 MGB-E-A2-106051
	With red knob, actuation axis 107 mm long, for doors or profiles up to 40 mm thick	117126 MGB-E-A7-117126
	With red knob, actuation axis 115 mm long, mounting plate pre-assembled, for doors or profiles up to 40 mm thick	126320 MGB-E-A8-126320
Extended actuation axis	250 mm long, square 8 x 8 mm (with protective sleeve 182 mm long), for doors or profiles up to 185.5 mm thick	106761 AY-ERS-250-106761
Door handle	Aluminum, red anodized	156945 AY-DHL-R1-156945
Door knob	Aluminum, red anodized	157018 AY-DKB-R1-157018
Mounting plate	Suitable for all MGB escape releases	109492 MGB-A-MOUNTINGPLATE-E-109492

Emergency release for auxiliary release / adhesive labels

► Emergency release

Function

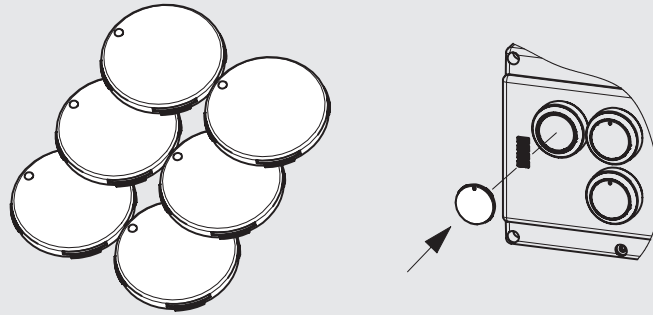
The MGB can be unlocked manually using the emergency release. The rotary knob is pushed and then turned by 90° to unlock. The snap-in bolt engages in the hole on the flange. To release the emergency release, push the snap-in bolt inward and simultaneously turn the rotary knob back to its initial position. The emergency release can be sealed in the free position.

Emergency release MGB-A...**Dimension drawing****Ordering table**

Series / designation	Usage/color	Order no./item
Emergency release sealable	For auxiliary release evaluation modules MGB	112989 MGB-A-EMERGENCYRELEASE-112989
Lead seal kit	For emergency release	087256 Lead seal kit C1937
Adhesive labels silver, blank (packaging unit 10 pcs.)	For evaluation modules MGB	114529 MGB-A-PLATESET-NN01-114529
Screw set (packaging unit 5 pcs.)	For MGB cover	156331 MGB-A-SCREW-156331/V5

Lens sets

Lens set



Ordering table

Series / designation	Usage/color		Order no./item
Lens set 2 pcs.	1 x WH	1 x YE	160049 AY-SET-LNS-SY05-160049
	1 x YE	1 x BU	163933 AY-SET-LNS-SY06-163933
Lens set 3 pcs.	1 x GN	1 x YE	126158 AY-SET-LNS-SY03-126158
	1 x WH		
	1 x WH	1 x YE	158307 AY-SET-LNS-SY04-158307
	1 x BU		
Lens sets 6 pcs.	2 x WH/1 x BU/1 x YE/1 x GN/1 x RD		120344 AY-SET-LNS-0001-120344
	1 x WH/1 x BU/1 x YE/1 x GN/1 x RD/1 x BK		120378 AY-SET-LNS-0002-120378
	1 x WH	1 x WH	120377 AY-SET-LNS-SY01-120377
	1 x GN	1 x WH	
	1 x WH	1 x WH	
Lens set 15 pcs.	1 x WH	4 x BK	125359 AY-SET-LNS-SY02-125359
	1 x WH	1 x WH	
	2 x WH	2 x WH	
	1 x WH OK	1 x WH	
	1 x WH	1 x WH	

Mounting plates for modules MGB-...-AR... and MGB-...-AP...

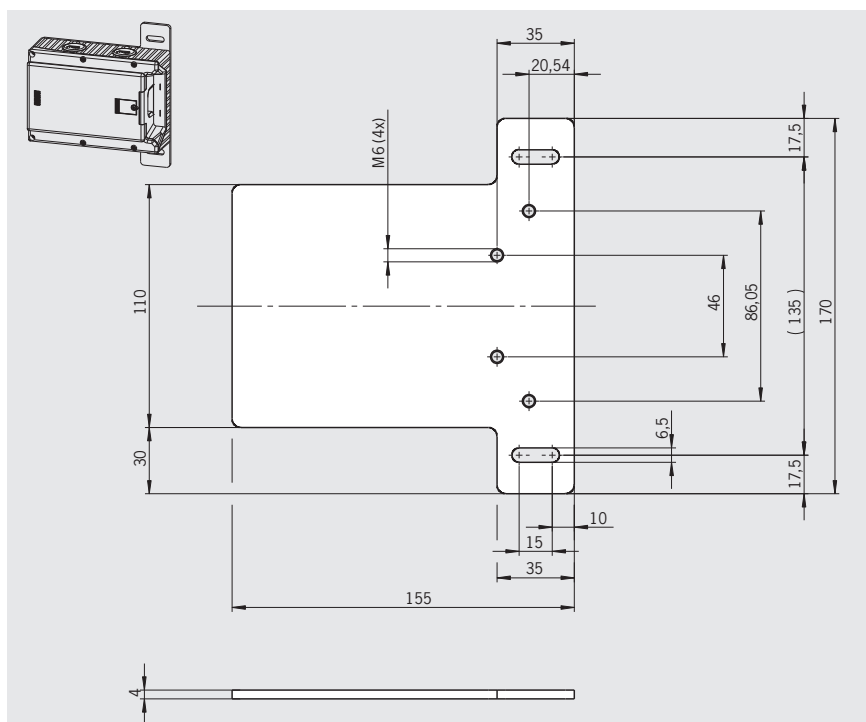
- ▶ Easy and quick mounting (only two screws required)
- ▶ Quick module replacement
- ▶ Robust stainless steel plate
- ▶ Suitable for doors hinged on the right and left

Mounting plate for evaluation module

Suitable for all interlocking or locking modules in the system families AR and AP. Two screws are sufficient for fastening the mounting plates.
Important: Use only if the handle module is also fastened to a mounting plate.



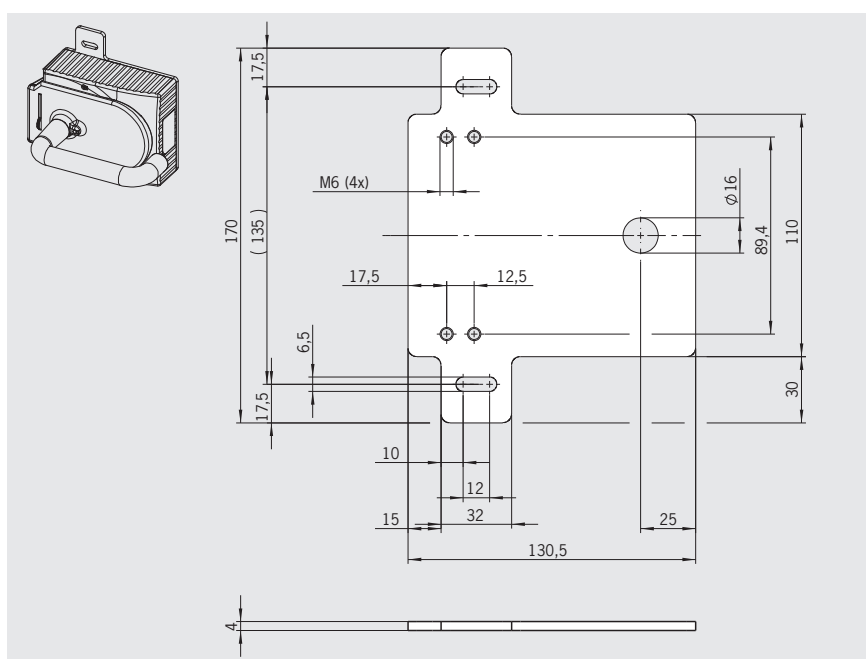
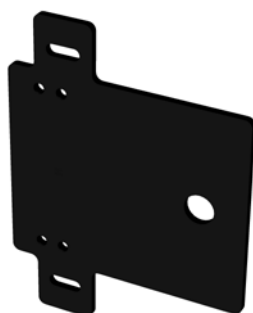
Mounting plate for evaluation module



Mounting plate for handle modules

Mounting plate for handle module

Suitable for all MGB handle modules. Two screws are sufficient for fastening the mounting plates.
Important: Use only if the evaluation module is also fastened to a mounting plate.



Ordering table

Series / designation	Version	Order no./item
Mounting plate for evaluation module	Suitable for all MGB-L-AR-... and MGB-L-AP-...	109490 MGB-A-MOUNTINGPLATE-L-109490
Mounting plate for handle module	Suitable for all MGB handle modules	109491 MGB-A-MOUNTINGPLATE-H-109491
Mounting plate for escape release	Suitable for all MGB escape releases	109492 MGB-A-MOUNTINGPLATE-E-109492
Mounting plate for evaluation module-control module combination	Suitable for all MGB-L-AR-... and MGB-L-AP-... in combination with a control module MGB-C-...	110072 MGB-A-MOUNTINGPLATE-LC-110072

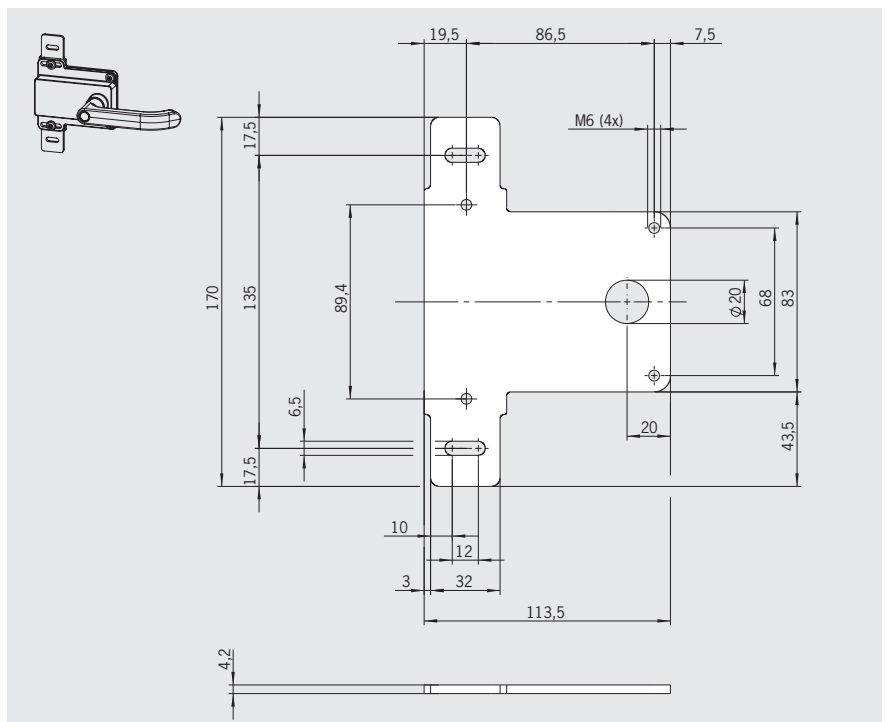
Mounting plate for escape release

Mounting plate for escape release

Suitable for all MGB escape releases. Two screws are sufficient for fastening the mounting plates.

Important: Pay attention to length of the escape release axis. You may need the longer axis (order no. 106761, see p. 65).

Mounting plate for evaluation module-con-

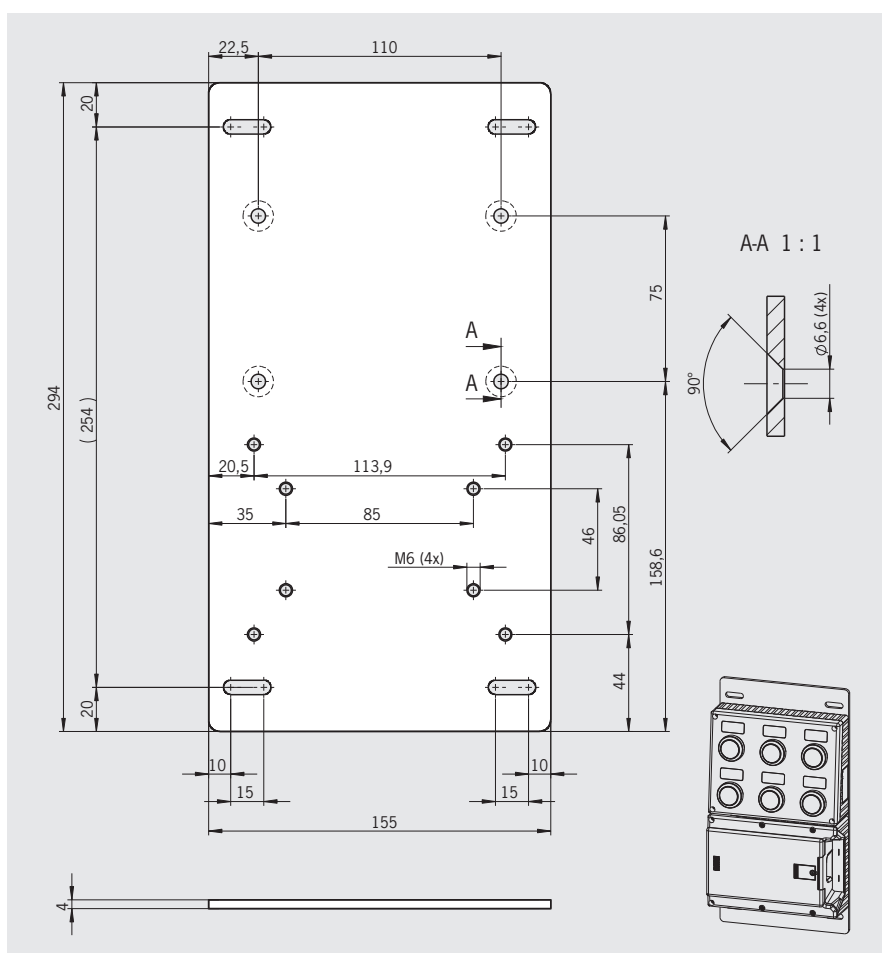
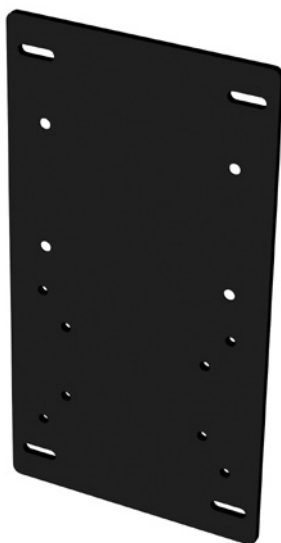


Mounting plate for evaluation module-control module combination

trol module combination

Suitable for all MGB combinations, comprising an evaluation module and a control module.

Important: Use only if the handle module is also fastened to a mounting plate.



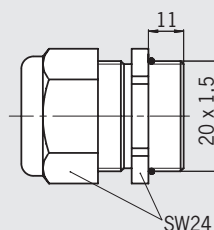
Cable gland

- ▶ M20 x 1.5
- ▶ Material plastic
- ▶ Cable diameter 6 - 12 mm

Cable gland EKPM20/06

Plastic

Dimension drawing



Plug connector RC18

- ▶ Cable optional
- ▶ Halogen-free cable optional

Crimp contacts

With 16 crimp pins for conductor cross-section 0.38 - 0.5 mm² and 3 pins for conductor cross-section 0.75 - 1.0 mm² for control of the guard locking solenoid.

PUR cable (optional)

Cable sleeve PUR, color black, conductor cross-section 0.5 mm² or 1.0 mm² (suitable for drag chain).

Depending on the cable version, either color-coded or with separately numbered, black cores.

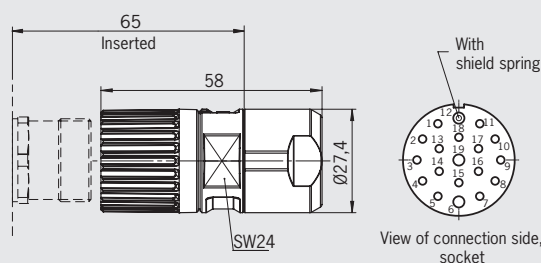
PUR cable, halogen-free (optional)

Cable sleeve PUR, color black, halogen-free, silicone-free. Reduction of toxic gases and smoke in case of fire (suitable for drag chain). Conductor cross-section 0.5 mm² or 1.0 mm². Cores color-coded.

Plug connector RC18 (M23)

19-pin

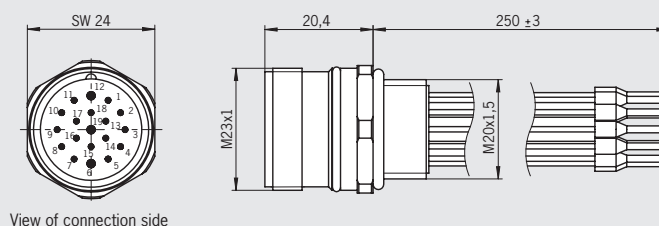
Dimension drawing



Built-in connector RC18 (M23)

19-pin

Dimension drawing

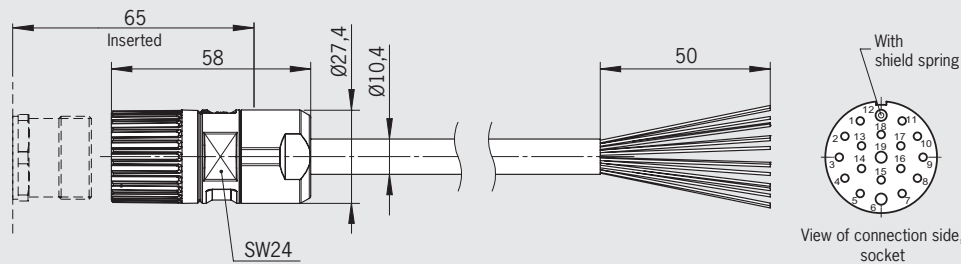


Ordering table

Designation	Version	Order no./item
Cable gland M20 x 1.5	Material plastic Cable diameter 6 - 12 mm	086233 EKPM20/06
Plug connector RC18 (M23) 19-pin	Female plug (Crimp contacts included)	167838 AC-PC-M23F19G-C1825-167838
	Replacement pin crimp contacts Conductor cross-section 16 x 0.38 - 0.5 mm ² 3 x 0.75 - 1 mm ²	167669 AY-SET-CF-C1825-167669
Built-in connector RC18 (M23) 19-pin		120403 MGB-A-PLUGCONNECTOR-RC18-120403

Connecting cable PUR with plug connector M23
18-core + PE, color-coded

Dimension drawing



Assignment of connecting cable with plug connector M23

Pin	Conductor coloring	Conductor cross-section [mm²]	Pin	Conductor coloring	Conductor cross-section [mm²]
1	VT	0.5	11	BK	0.5
2	RD	0.5	12	GN/YE	1.0
3	GY	0.5	13	PK	0.5
4	RD/BU	0.5	14	BN/GY	0.5
5	GN	0.5	15	BN/YE	0.5
6	BU	1.0	16	BN/GN	0.5
7	GY/PK	0.5	17	WH	0.5
8	GN/WH	0.5	18	YE	0.5
9	YE/WH	0.5	19	BN	1.0
10	GY/WH	0.5			

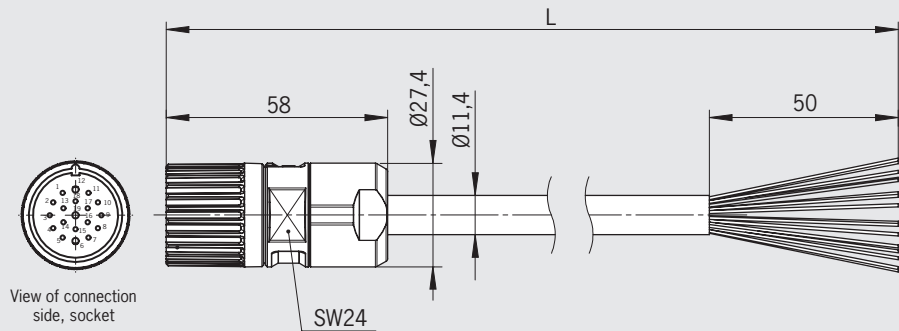
Ordering table

Designation	Cable length L [m]	Order no./item
Connecting cable PUR with plug connector M23 18-core + PE, socket Cores color-coded	1.5	092761 C-M23F19-19XDIFPU01,5-MA-092761
	3	092816 C-M23F19-19XDIFPU03,0-MA-092816
	6	077014 C-M23F19-19XDIFPU06,0-MA-077014
	8	077015 C-M23F19-19XDIFPU08,0-MA-077015
	10	092898 C-M23F19-19XDIFPU10,0-MA-092898
	15	077016 C-M23F19-19XDIFPU15,0-MA-077016
	20	092726 C-M23F19-19XDIFPU20,0-MA-092726
	25	092727 C-M23F19-19XDIFPU25,0-MA-092727
	30	095993 C-M23F19-19XDIFPU30,0-MA-095993
	40	102490 C-M23F19-19XDIFPU40,0-MA-102490

Connecting cables with plug connector M23

Connecting cable PUR with plug connector M23
19-core, numbered

Dimension drawing



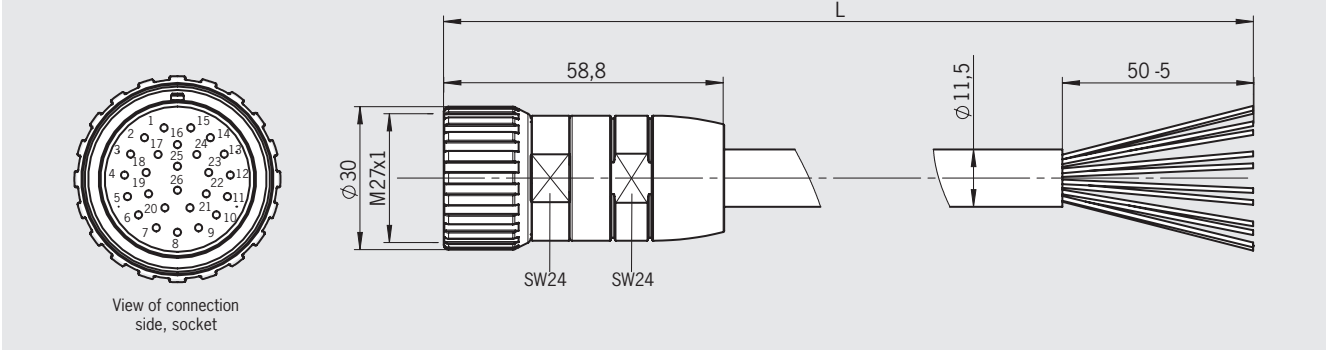
Ordering table

Designation	Cable length L [m]	Order no./item
Connecting cable PUR with plug connector M23 19-pin, socket Cores numbered, black, Numbering as per the pin number Conductor cross-section as for connecting cable above	1.5	110301 C-M23F19-PU01,5-MA-110301
	3	110302 C-M23F19-PU03,0-MA-110302
	6	110303 C-M23F19-PU06,0-MA-110303
	10	110304 C-M23F19-PU10,0-MA-110304
	15	110305 C-M23F19-PU15,0-MA-110305
	20	110306 C-M23F19-PU20,0-MA-110306
	25	110307 C-M23F19-PU25,0-MA-110307
	30	122434 C-M23F19-PU30,0-MA-122434
	40	122435 C-M23F19-PU40,0-MA-122435

Connecting cables with plug connector RC26

Connecting cable PUR with plug connector RC26
26-core + PE, numbered

Dimension drawing



Conductor cross-section of connecting cable with plug connector RC26

Pin	Conductor cross-section [mm²]	Pin	Conductor cross-section [mm²]	Pin	Conductor cross-section [mm²]
1	1.0	10	0.5	19	0.5
2	1.0	11	0.5	20	0.5
3	1.0	12	0.5	21	0.5
4	0.5	13	0.5	22	0.5
5	0.5	14	0.5	23	0.5
6	0.5	15	0.5	24	0.5
7	0.5	16	0.5	25	0.5
8	0.5	17	0.5	26	0.5
9	0.5	18	0.5		

Ordering table

Designation	Cable length L [m]	Order no./item
Connecting cable TPE-U with plug connector RC26 26-pin, socket Cores numbered, black, Numbering as per the pin number	1.1	114976 C-M27F26-PU01,1-MA-114976
	2	111997 C-M27F26-PU02,0-MA-111997
	5	111998 C-M27F26-PU05,0-MA-111998
	10	111999 C-M27F26-PU10,0-MA-111999
	20	112912 C-M27F26-PU20,0-MA-112912
	35	123829 C-M27F26-PU35,0-MA-123829
	50	123877 C-M27F26-PU50,0-MA-123877

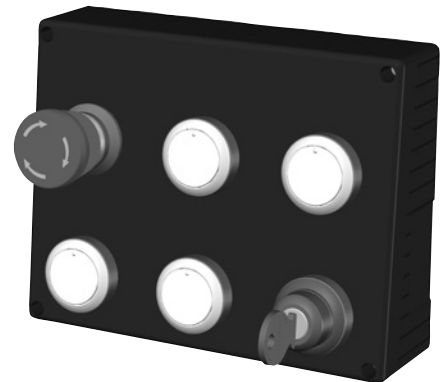
Expand your options - the control module for the MGB

- ▶ Space for up to 6 controls and indicators
- ▶ Ideal expansion solution for the MGB system
- ▶ A large amount of design flexibility

Control elements such as pushbuttons, emergency stop, key-operated rotary switches, selector switches or even indicators can be integrated into the control module as required. In this way a complete functional control panel can be built up.

Even the MGB basic system comprising handle module and interlocking/locking module includes numerous functions. And if requirements grow, the MGB system simply grows with them with the aid of the control module.

Furthermore, the control module forms an attractive unit together with the MGB. An elegant alternative to the gray switch boxes that were common in the past.

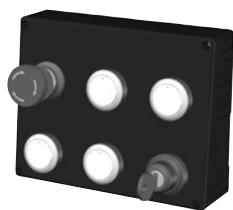


(Configuration example)

Benefits for you

- ▶ Simple expansion of the MGB system
- ▶ Flexible configuration with standard components
- ▶ Attractive solution from one mold
- ▶ Functional unit, all control functions in one place
- ▶ Alternative to previous control terminals

Control modules MGB-C...



(Configuration example)

Details

Emergency stop with monitoring contact

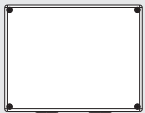
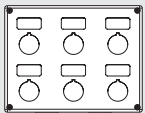
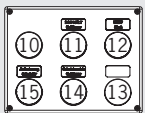
Additional normally open contact in the emergency stop, e.g. as monitoring contact for the control system.

Further information

- ▶ For dimension drawings, see p. 76
- ▶ Technical data, see p. 80
- ▶ For accessories and spare parts, see p. 59
- ▶ www.euchner.com

▶ Integrated controls and indicators

Ordering table

Version/configuration scheme	S10 H10	S11 H11	S12 H12	S13 H13	S14 H14	S15 H15	Order no./item
 Empty housing incl. cover and 2 dummy plugs	—	—	—	—	—	—	109219 MGB-C-000000-A1-109219
 Empty housing incl. cover with holes, 6 slide-in labels (enclosed) and 2 dummy plugs	Hole	Hole	Hole	Hole	Hole	Hole	114268 MGB-C-0HHHHHH-A1-114268
 1 slide-in label (enclosed), 4 inscribed slide-in labels		Acknowledged emergency stop  rd	WZW start  wh	Blind plug	Acknowledged protection zone  bu	Safety door request  ye	112022 MGB-C-1EPPBPP-A3-112022
Connection kit	- Printed circuit board with plug-in spring terminals - Pre-assembled wires and cable straps						109858 MGB-A-LPSET-109858
Connection set	2 housing sleeves for gland M20 x 1.5						109524 MGB-A-BUSH-109524

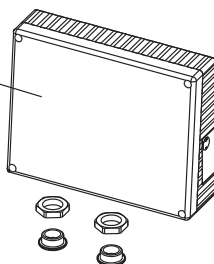
Dimension drawing and configuration example

Control module housing (MGB-C...)

Order no. 109219

Including:

- ▶ 1 x empty housing
- ▶ 1 x cover
- ▶ 2 x dummy plug

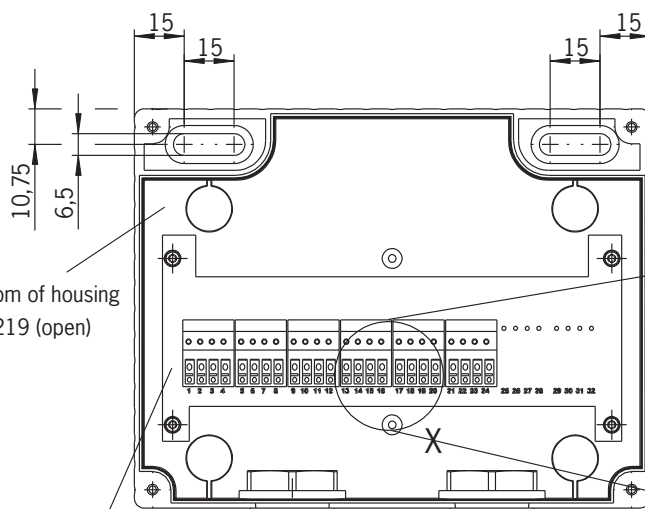
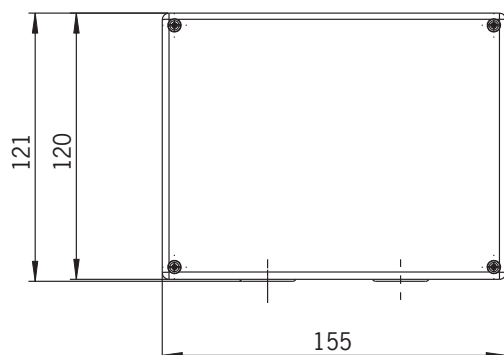
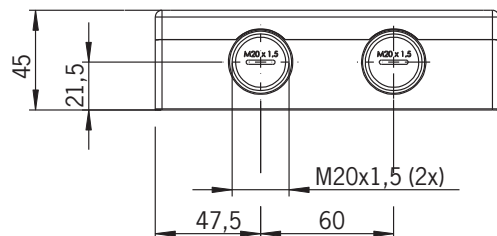
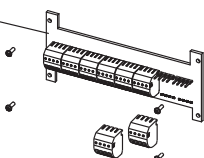


Connection kit

Order no. 109858

Including:

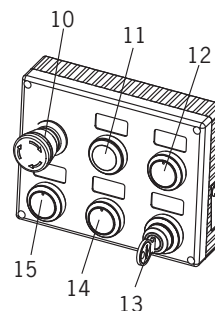
- ▶ 1 pc. printed circuit board with plug-in spring terminals
- ▶ 4 pcs. fixing screws for printed circuit board
- ▶ 7 pcs. flexible wires complete 0.34 mm² red
- ▶ 7 pcs. flexible wires complete 0.34 mm² blue
- ▶ 16 pcs. flexible wires complete 0.34 mm² black
- ▶ 6 pcs. cable straps



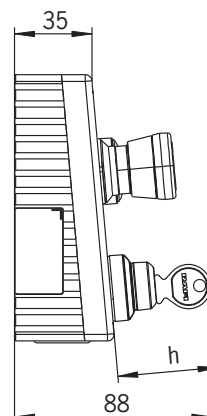
Bottom of housing
109219 (open)

Printed circuit board with connection terminals 109858

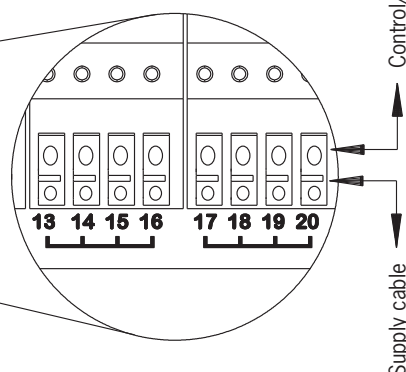
Configuration example



Position	Version	h [mm]
10	Emergency stop pushbutton	33.4
11	Signal indicator, red	10
12	Signal indicator, green	
13	Key-operated rotary switch	45.1
14	Illuminated pushbutton	10
15	Illuminated pushbutton	

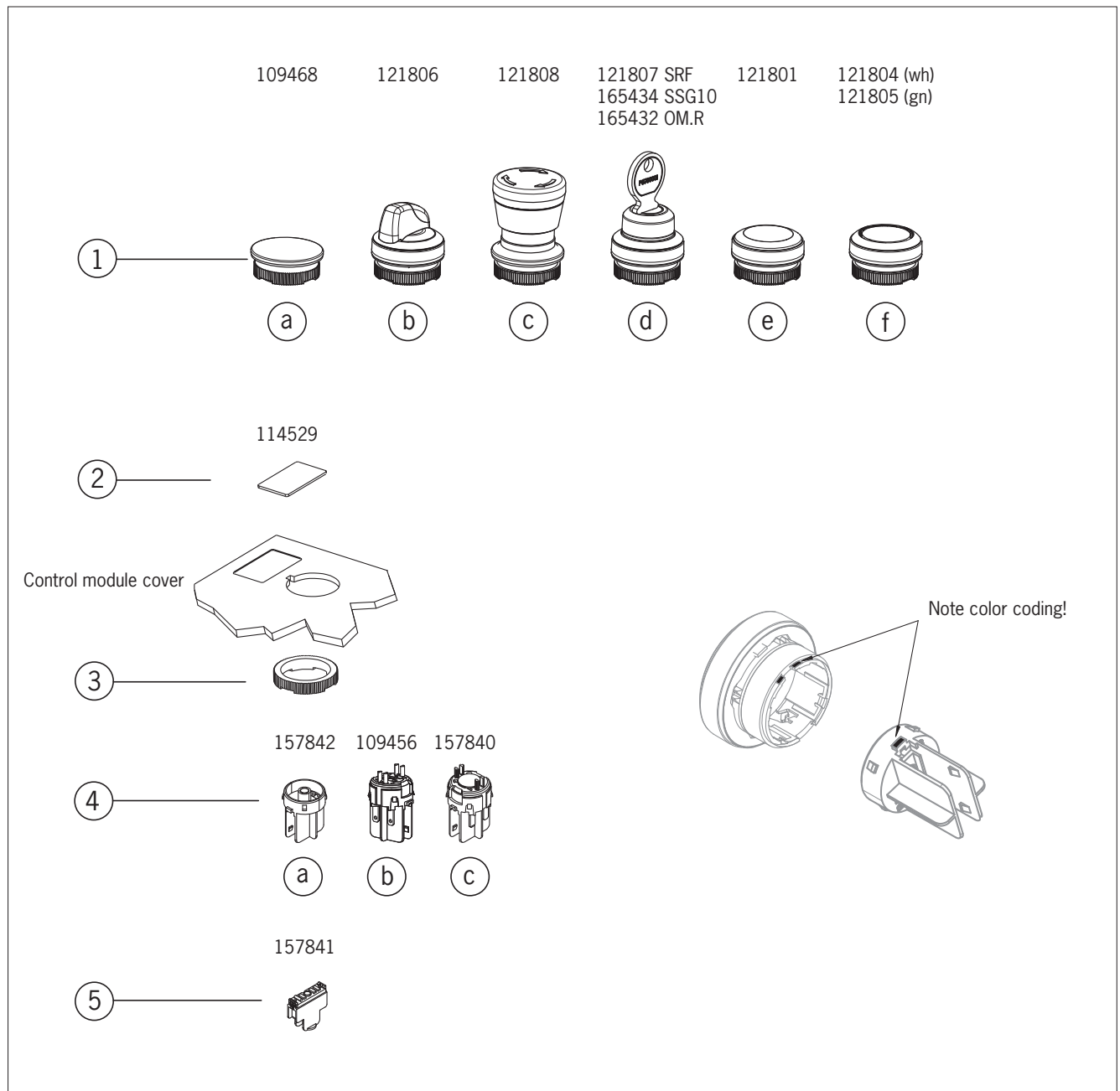


X 1.5 : 1



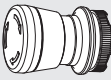
Overview, controls and indicators

(suitable only for use in the control module)



- ① **Controls/indicators**
 - a Blind plug
 - b Selector switch, 2 positions, latching, illumination with 157841
 - c Emergency stop, turn-to-reset
 - d Key-operated rotary switch, 2 positions, latching (key removable in both positions on 121807 SRF, key removable only in position 0 on 165434 SSG10 and 165432 OM.R)
 - e Pushbutton, illumination with 157841
 - f Signal indicator, different colors, illumination with 157841
- ② **Adhesive label**
- ③ **Knurled nut (included with item 1)**
- ④ **Switching element/LED holder**
 - a LED holder
 - b Switching element, 2 positively driven NC contacts, 1 NO contact
 - c Switching element, 1 NO contact
- ⑤ **LED element, LED, white**

Combination options

	 Switching element Order no. 157840	 Switching element Order no. 109456	 LED holder Order no. 157842
			
 LED Order no. 157841	X	-	●
 Emergency stop Order no. 121808 Latching with turn-to-reset	-	●	-
 Key-operated switch (2 positions) Order no. 121807 SRF MP-B-K-RR-00-A5-121807 Key removable in both positions	● ¹⁾	-	-
 Key-operated switch (2 positions) Order no. 165434 SSG10 MP-B-K-RR-00-A6-165434 Order no. 165432 SOM.R MP-B-K-RR-00-A6-165432 Key can be removed only in position 0			
 Selector switch (2 positions) Order no. 121806	●	-	-
 Pushbutton (illuminated) Order no. 121801	●	-	-
 Signal indicator Order no. 121804 (wh) Order no. 121805 (gn)	-	-	●
 Adhesive label Order no. 114529		●	
 Blind plug Order no. 109468		-	

x= Optional

- = Not combinable

● = Combinable

¹⁾ Not in combination with 157841 (LED)

Spare parts and accessories

Designation	Description	Order no.	Item		
Blind plug		109468	MP-A-B-00-00-00-109468		
Signal indicator (without LED holder)	transparent - (wh) white - (gn) green	121804 121805	MP-B-L-R0-WH-00-121804 MP-B-L-R0-GN-00-121805		
Pushbuttons (without switching element)		121801	MP-B-P-RT-NC-A1-121801		
Emergency stop (without switching element)	Latching, turn-to-reset	121808	MP-B-E-RD-00-A4-121808		
Selector switch (without switching element)	2 positions, latching in 2 positions	121806	MP-B-S-RR-00-A2-121806		
Key-operated rotary switch (without switching element)	2 positions; key removable in both positions	121807	MP-B-K-RR-00-A5-121807		
	2 positions; key can be removed only in position 0	165432	MP-B-K-RR-00-A6-165432		
		165434	MP-B-K-RR-00-A6-165434		
Replacement standard keys (2x)	For key-operated rotary switch MP-B-K-RR-00-A5-121807	121809	MP-B-K-RK-00-00-121809		
	For key-operated rotary switch MP-B-K-RR-00-A6-165432	165433	MP-B-K-RK-00-00-165433		
	For key-operated rotary switch MP-B-K-RR-00-A6-165434	165435	MP-B-K-RK-00-00-165435		
Adhesive labels	Silver, blank (packaging unit = 10 pcs.)	114529	MGB-A-PLATESET-NN01-114529		
Connection set	2 housing sleeves for gland M20x1.5	109524	MGB-A-BUSH-109524		
Switching element with LED holder	- 2 positively driven contacts, 1 NO contact - 1 NO contact (expandable with LED element)	109456 157840	MP-A-C-GM-21-00-109456 MP-A-C-GU-01-00-157840		
LED holder		157842	MP-A-C-CH-00-00-157842		
LED element	LED, white	157841	MP-A-C-LC-WH-00-157841		
Lens set 2 pcs.	1 x WH  1 x YE 	160049	AY-SET-LNS-SY05-160049		
	1 x YE  1 x BU 	163933	AY-SET-LNS-SY06-163933		
Lens set 3 pcs.	1 x GN  1 x YE 	126158	AY-SET-LNS-SY03-126158		
	1 x WH 				
	1 x WH  1 x YE 	158307	AY-SET-LNS-SY04-158307		
	1 x BU 				
Lens sets 6 pcs.	2 x WH/1 x BU/ 1 x YE/ 1 x GN/ 1 x RD		120344	AY-SET-LNS-0001-120344	
	1 x WH/1 x BU/ 1 x YE/ 1 x GN/ 1 x RD/1 x BK		120378	AY-SET-LNS-0002-120378	
	1 x WH  1 x WH 	120377	AY-SET-LNS-SY01-120377		
	1 x GN  1 x WH 				
1 x WH  1 x WH 					
Lens set 15 pcs.	1 x WH	4 x BK	125359	AY-SET-LNS-SY02-125359	
	1 x WH  1 x WH 	2 x WH			
	2 x WH  2 x WH 				
	1 x WH OK 1 x WH 	1 x WH 			
	1 x WH  1 x WH 				

Technical data

Empty housing

Parameter	Value
Housing material	Reinforced thermoplastic
Ambient temperature	-20 ... 55 °C
Degree of protection acc. to EN 60529	IP65
Degree of contamination/material group	3 (industrial)
External connection	2 x cable entry M20x1.5
Internal connection (plug-in spring terminals)	0.2 ... 1.5 mm ²

Control elements

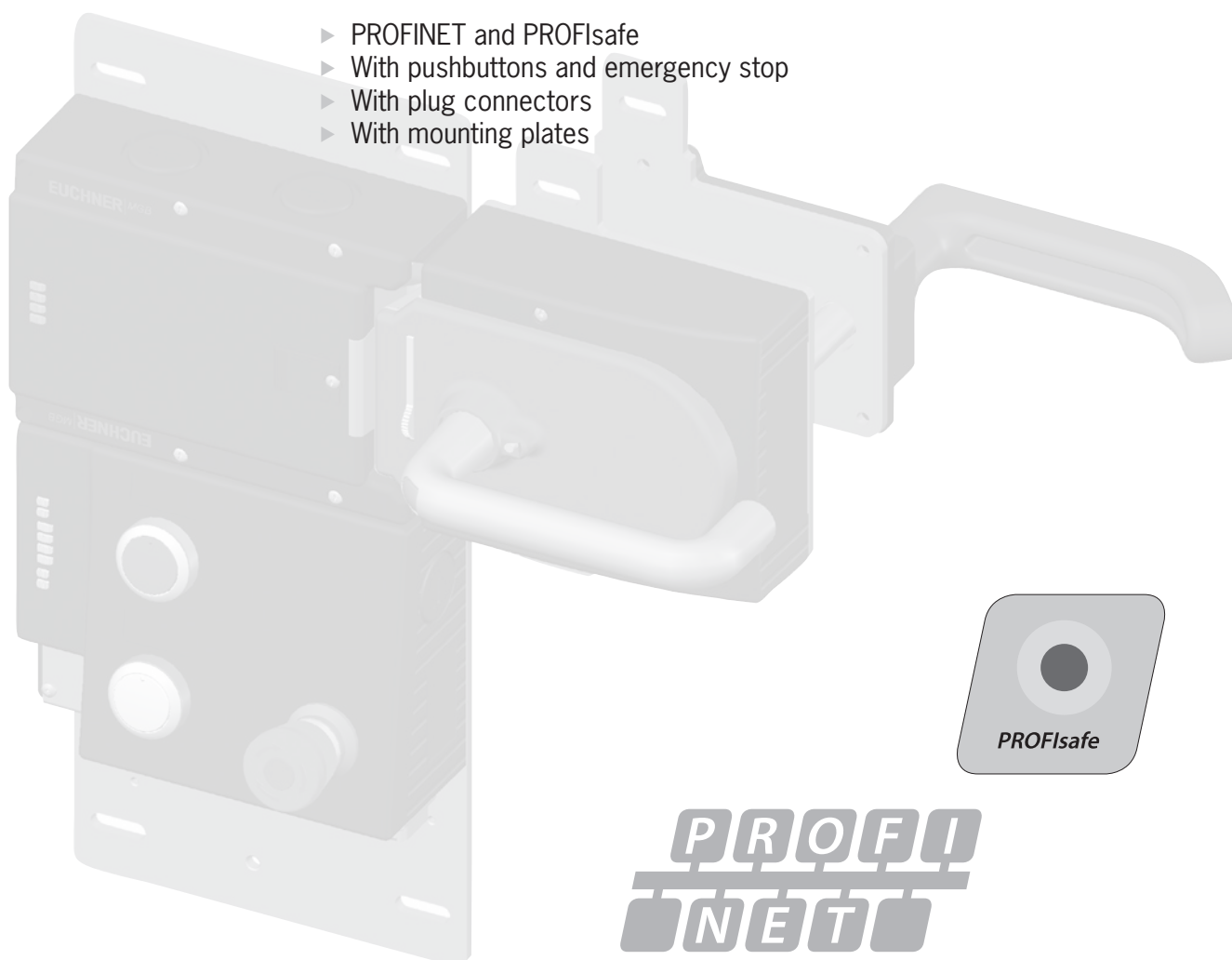
Parameter	Value
Mechanical life	
- Pushbutton	1x10 ⁶
- Emergency stop	5x10 ⁴
- Selector switch	3x10 ⁵
- Key-operated switch	3x10 ⁴
Ambient temperature	-20 ... 55 °C
Degree of protection acc. to EN 60529	IP65 (fitted), Key-operated switch IP54

Switching elements, LED

Parameter	Value
Life at 10 mA/24 V DC	
...GU...	1x10 ⁶
...GM...	5x10 ⁴
Ambient temperature	-20 ... 55 °C
Operating voltage	
- Switching elements	5 ... 35 V
- LED	24 V
Operating current	
- Switching elements	1 ... 100 mA
- LED	max. 30 mA permissible
Breaking capacity, max.	250 mW
Connection	Connector 2.8 x 0.8 mm
Contact material	Au
Shock resistance according to IEC 60068-2-27	15 g
Vibration resistance IEC 60068-2-6	5 g (10 ... 500 Hz)
Positively driven	according to IEC 60947-5-1
...GM...	(positively driven contact)

Complete sets system family MGB-PN

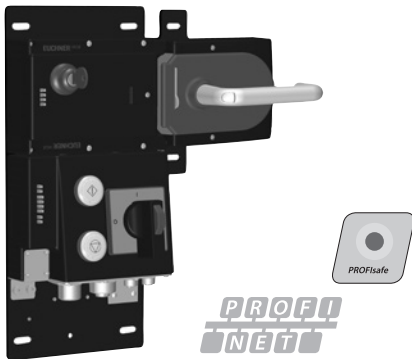
- ▶ PROFINET and PROFI-safe
- ▶ With pushbuttons and emergency stop
- ▶ With plug connectors
- ▶ With mounting plates



MGB-PN

Locking sets MGB-L0-PN... (without guard locking)	82 - 83
with 4 controls and indicators	82
Locking sets MGB-L1-PN... (guard locking by spring force)	84 - 91
with 2 controls and indicators	84
with 3 controls and indicators	86
with 4 controls and indicators	90
with 5 controls and indicators	92
Locking sets MGB-L2-PN... (guard locking by solenoid force)	94 - 103
with 3 controls and indicators	94
with 4 controls and indicators	98
with 6 controls and indicators	102
Control modules MGB-...-PN	104
Assignment of the terminal plugs	106
Technical data	108
Dimension drawing	109

Interlocking sets MGB-LO...-PN... (without guard locking) with 4 controls or indicators



- ▶ Integrated controls and indicators
- ▶ Pre-assembled on mounting plates
- ▶ Integrated PROFINET RT switch

Details

PROFINET connection

Connection via 7/8" plugs according to ANSI/B93.55M-1981 and M12 plugs according to IEC 61076-2-101.

PROFINET RT switch

Point-to-point topology network structure due to integrated RT switch.

Key-operated switch form V

Form V, 90° angle of rotation with 2 positions. The key latches in positions 0 and 1 and can be removed in positions 0 and 1.

Selector switch

Selector switch with 2 positions (form V, 90°). The switch latches in both positions.

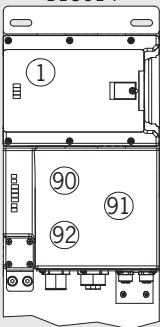
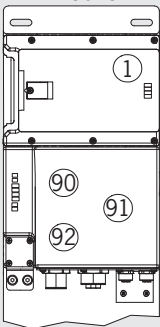
Multicode evaluation

Every suitable handle module is detected by the safety switch.

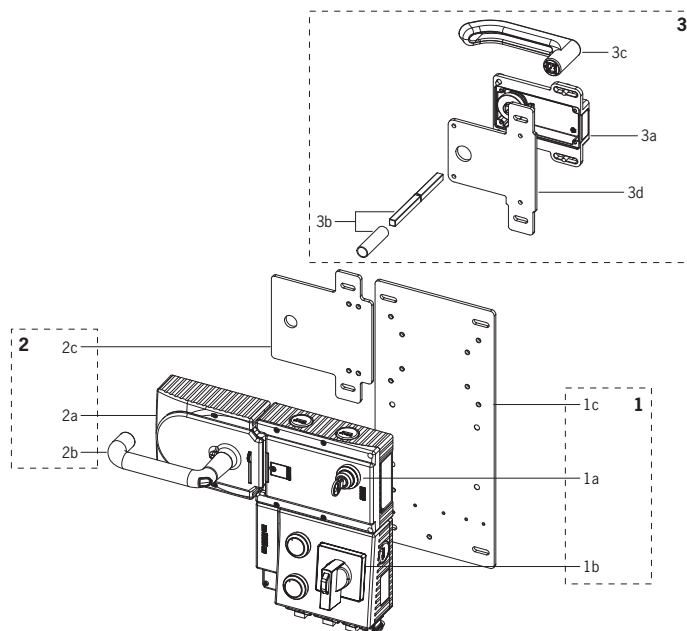
Further information

- ▶ Dimension drawings see p. 109
- ▶ Technical data see p. 108
- ▶ Accessories and spare parts see p. 83
- ▶ www.euchner.com

Ordering table

Modules in the set									Ordering data, set
Evaluation module and bus module						Handle module Order no. separate module	Escape release Order no. separate module	Door hinge (factory setting)	
Version/configuration scheme Order no. module combination		Controls and indicators							Order no./item
	 incl. adhesive labels	S90 H90	S92 H95	S91	S1	111838	—	right	113232 MGB-LOHB-PNA-R-113232 (Modules pre-assembled on mounting plates)
	 wh	 wh	 Form V 90°	 Form V 90°					
	 incl. adhesive labels					111839		left	113233 MGB-LOHB-PNA-L-113233 (Modules pre-assembled on mounting plates)

System components and spare parts



Ordering table for system components, spare parts and accessories

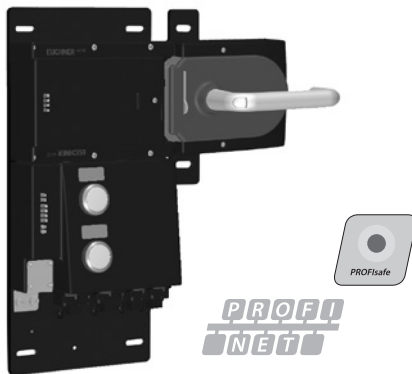
Notice: Only spare parts that are listed with an order number in the following ordering table can be ordered.

Position	Designation	Use/description	Order no./item
1	System unit MGB-LOB-...	For doors hinged on the left	113615 MGB-LOB-PNA-L-113615
		For doors hinged on the right	113614 MGB-LOB-PNA-R-113614
	comprising:		
	1 a	- Evaluation module	-
	1 b	- Bus module	-
	1 c	- Mounting plate	
2	Handle module MGB-H-...	For doors hinged on the left	111839 MGB-H-AA1A6-L-111839
		For doors hinged on the right	111838 MGB-H-AA1A6-R-111838
	comprising:		
	2 a	- Handle module	-
	2 b	- Door handle	123926 MGB-A-DOORHANDLE-S2-123926
	2 c	- Mounting plate	109491 MGB-A-MOUNTINGPLATE-H-109491
3	Escape release MGB-E-...		106051 MGB-E-A2-106051
	3 a	- Escape release	-
	3 b	- Escape release shaft	Standard length 115 mm (square 8x8 mm + sleeve)
		- Long escape release shaft (instead of item 3b)	Length 250 mm (square 8x8 mm + sleeve 182 mm long)
	3 c	- Door handle	106761 AY-ERS-250-106761
			156945 AY-DHL-R1-156945
	3 d	- Mounting plate	109492 MGB-A-MOUNTINGPLATE-E-109492

Locking sets MGB-L1...-PN... (guard locking by spring force) with 2 controls or indicators



Cat.
4
PLe



- ▶ Integrated controls and indicators
- ▶ Pre-assembled on mounting plates
- ▶ Integrated PROFINET RT switch

Details

PROFINET connection

Connection via push-pull plugs according to IEC 61076-3-117, variant 14.

PROFINET RT switch

Point-to-point topology network structure due to integrated RT switch.

Flexible use as interlocking or guard locking

By means of the corresponding evaluation of the safe device data by the control system, use can be as either interlocking or guard locking (with or without monitoring).

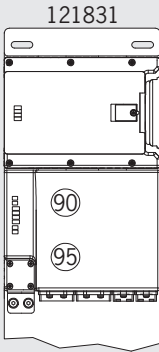
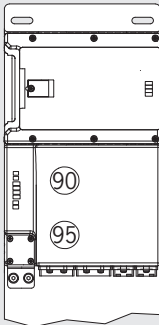
Lens set

The color of the pushbuttons can be selected using the lens set 120344 included.

Further information

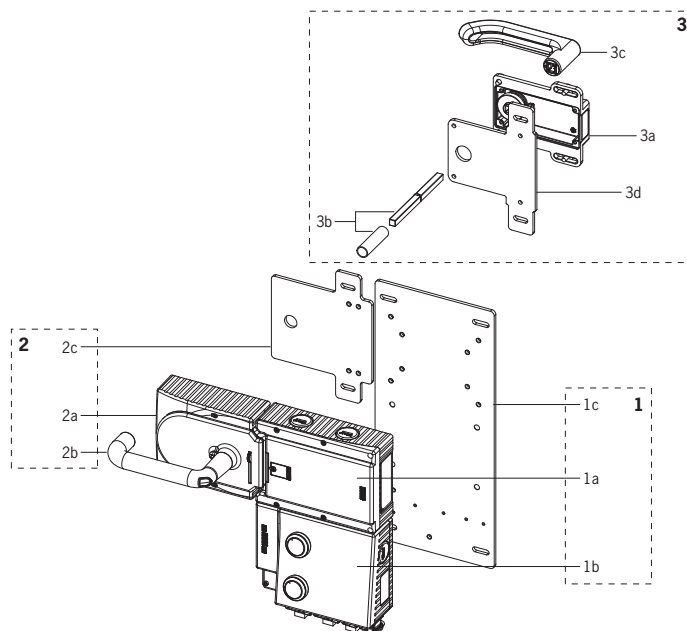
- ▶ Dimension drawings see p. 109
- ▶ Technical data see p. 108
- ▶ Accessories and spare parts see p. 85
- ▶ www.euchner.com

Ordering table

Modules in the set					Ordering data, set		
Evaluation module and bus module		Controls and indicators		Handle module Order no. separate module	Escape release Order no. separate module	Door hinge (factory setting)	Order no./item
Version/configuration scheme Order no. module combination		S90	S95	106049	—	right	121832 MGB-L1HB-PNA-R-121832 (Modules pre-assembled on mounting plates)
		H90	H95				
 incl. adhesive labels	 *)	 *)	106221	—	left	121834 MGB-L1HB-PNA-L-121834 (Modules pre-assembled on mounting plates)	
	 incl. adhesive labels						

* The color can be selected using the lens set included.

System components and spare parts



Ordering table for system components, spare parts and accessories

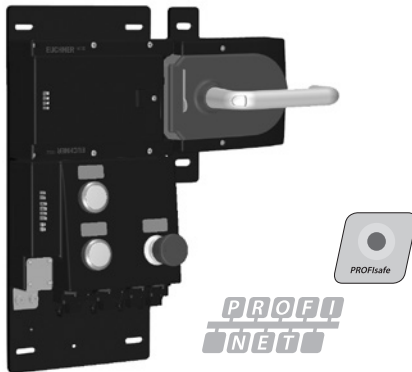
Notice: Only spare parts that are listed with an order number in the following ordering table can be ordered.

Position	Designation	Use/description	Order no./item
1	System unit MGB-L1B-... (guard locking by spring force)	For doors hinged on the left	121833 MGB-L1B-PNA-L-121833
		For doors hinged on the right	121831 MGB-L1B-PNA-R-121831
	comprising:		
	1 a - Evaluation module		-
	1 b - Bus module		-
	1 c - Mounting plate		
2	Handle module MGB-H-... comprising:	For doors hinged on the left	106221 MGB-H-AA1A2-L-106221
		For doors hinged on the right	106049 MGB-H-AA1A2-R-106049
	2 a - Handle module		-
	2 b - Door handle	Color silver	123926 MGB-A-DOORHANDLE-S2-123926
	2 c - Mounting plate	For handle module MGB-H-...	109491 MGB-A-MOUNTINGPLATE-H-109491
3	Escape release MGB-E-... comprising:		106051 MGB-E-A2-106051
			-
	3 a - Escape release		-
	3 b - Escape release shaft	Standard length 115 mm (square 8x8 mm + sleeve)	-
	- Long escape release shaft (instead of item 3b)	Length 250 mm (square 8x8 mm + sleeve 182 mm long)	106761 AY-ERS-250-106761
	3 c - Door handle	Color red	156945 AY-DHL-R1-156945
	3 d - Mounting plate	For escape release MGB-E-...	109492 MGB-A-MOUNTINGPLATE-E-109492

Locking sets MGB-L1...-PN... (guard locking by spring force) with 3 controls or indicators



Cat.
4
PLe



- ▶ Integrated controls and indicators
- ▶ Pre-assembled on mounting plates
- ▶ Integrated PROFINET RT switch

Details

PROFINET connection

Connection via push-pull plugs according to IEC 61076-3-117, variant 14, or 7/8" plugs according to ANSI/B93.55M-1981 and M12 plugs according to IEC 61076-2-101.

PROFINET RT switch

Point-to-point topology network structure due to integrated RT switch.

Flexible use as interlocking or guard locking

By means of the corresponding evaluation of the safe device data by the control system, use can be as either interlocking or guard locking (with or without monitoring).

Illuminated emergency stop

Emergency stop with illumination that can be controlled as required.

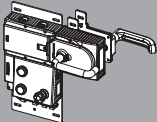
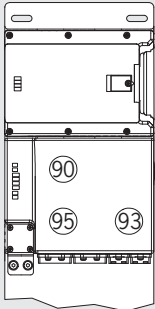
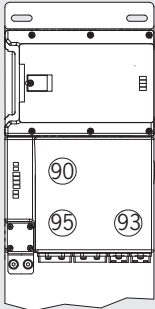
Lens set

The color of the pushbuttons can be selected using the lens set 120344 included.

Further information

- ▶ Dimension drawings see p. 109
- ▶ Technical data see p. 108
- ▶ Accessories and spare parts see p. 88
- ▶ www.euchner.com

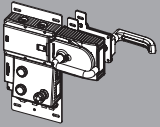
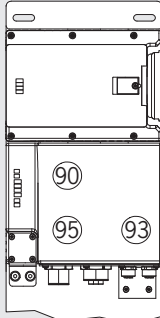
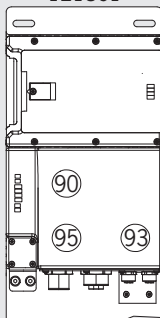
Ordering table

Modules in the set								Ordering data, set
Evaluation module and bus module					Handle module Order no. separate module	Escape release Order no. separate module	Door hinge (factory setting)	 Order no./item
Version/configuration scheme Order no. module combination	Controls and indicators							
 Incl. adhesive labels, push-pull plugs	S93	S90	S95	106049	—	right	121852 MGB-L1HB-PNA-R-121852 (Modules pre-assembled on mounting plates)	
	H93	H90	H95					
 Incl. adhesive labels, push-pull plugs		 *)	 *)	106221	—	left	121856 MGB-L1HB-PNA-L-121856 (Modules pre-assembled on mounting plates)	

* The color can be selected using the lens set included.

(Continued on next page)

Ordering table (continued)

Modules in the set							Ordering data, set	
Evaluation module and bus module					 Handle module Order no. separate module	 Escape release Order no. separate module	Door hinge (factory setting)	 Order no./item
Version/configuration scheme Order no. module combination		Controls and indicators						
 121857 Pre-assembled on mounting plate, incl. adhesive labels, 7/8" plugs and M12 plugs	S93	S90	S95	106049 Pre-assembled on mounting plate		right	121858 MGB-L1HB-PNA-R-121858	
	H93	H90	H95					
 121861 Pre-assembled on mounting plate, incl. adhesive labels, 7/8" plugs and M12 plugs		 *)	 *)	106221 Pre-assembled on mounting plate	-	left	121862 MGB-L1HB-PNA-L-121862	

* The color can be selected using the lens set included.

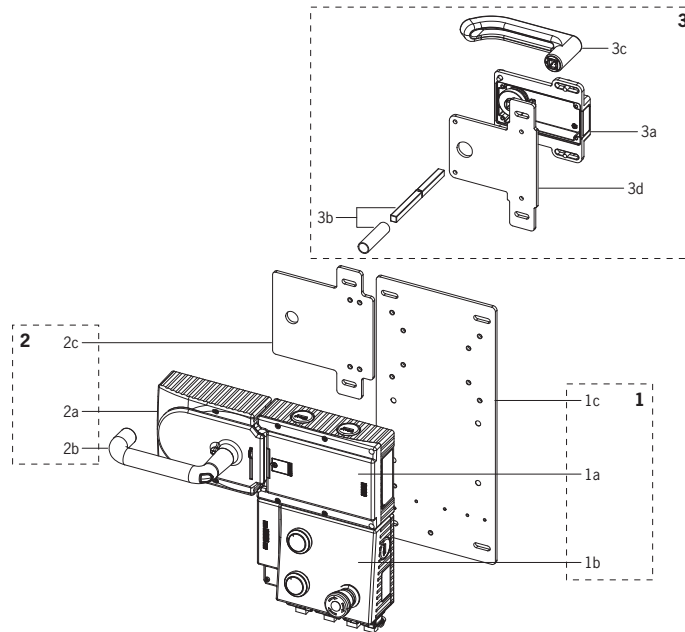
Locking sets MGB-L1...-PN... (guard locking by spring force) with 3 controls or indicators



Cat.
4
PLe



System components and spare parts



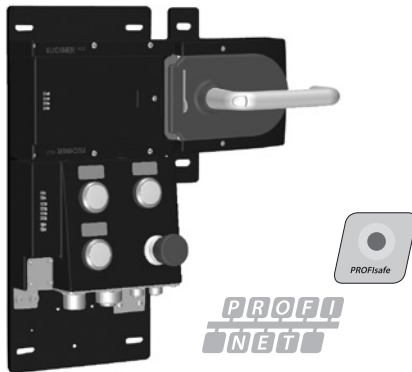
Ordering table for system components, spare parts and accessories

Notice: Only spare parts that are listed with an order number in the following ordering table can be ordered.

Position	Designation	Use/description	Order no./item
1	System unit MGB-L1B-... (guard locking by spring force)	For doors hinged on the left	121855 MGB-L1B-PNA-L-121855
		For doors hinged on the right	121861 MGB-L1B-PNA-L-121861
		For doors hinged on the right	121851 MGB-L1B-PNA-R-121851
		For doors hinged on the right	121857 MGB-L1B-PNA-R-121857
	comprising:		
	1 a - Evaluation module		-
	1 b - Bus module		-
	1 c - Mounting plate		
2	Handle module MGB-H-... comprising:	For doors hinged on the left	106221 MGB-H-AA1A2-L-106221
		For doors hinged on the right	106049 MGB-H-AA1A2-R-106049
	2 a - Handle module		-
	2 b - Door handle	Color silver	123926 MGB-A-DOORHANDLE-S2-123926
	2 c - Mounting plate	For handle module MGB-H-...	109491 MGB-A-MOUNTINGPLATE-H-109491
3	Escape release MGB-E-... comprising:		106051 MGB-E-A2-106051
	3 a - Escape release		-
	3 b - Escape release shaft	Standard length 115 mm (square 8x8 mm + sleeve)	-
	- Long escape release shaft (instead of item 3b)	Length 250 mm (square 8x8 mm + sleeve 182 mm long)	106761 AY-ERS-250-106761
	3 c - Door handle	Color red	156945 AY-DHL-R1-156945
	3 d - Mounting plate	For escape release MGB-E-...	109492 MGB-A-MOUNTINGPLATE-E-109492



Locking sets MGB-L1...-PN... (guard locking by spring force) with 4 controls or indicators



- ▶ Integrated controls and indicators
- ▶ Pre-assembled on mounting plates
- ▶ Integrated PROFINET RT switch

Details

PROFINET connection

Connection via 7/8" plugs according to ANSI/B93.55M-1981 and M12 plugs according to IEC 61076-2-101.

PROFINET RT switch

Point-to-point topology network structure due to integrated RT switch.

Flexible use as interlocking or guard locking

By means of the corresponding evaluation of the safe device data by the control system, use can be as either interlocking or guard locking (with or without monitoring).

Illuminated emergency stop

Emergency stop with illumination that can be controlled as required.

Lens set

The color of the pushbuttons can be selected using the lens set 120344 included.

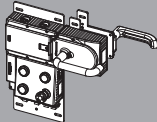
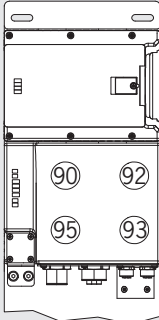
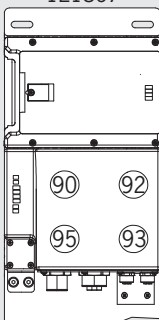
Multicode evaluation

Every suitable handle module is detected by the safety switch.

Further information

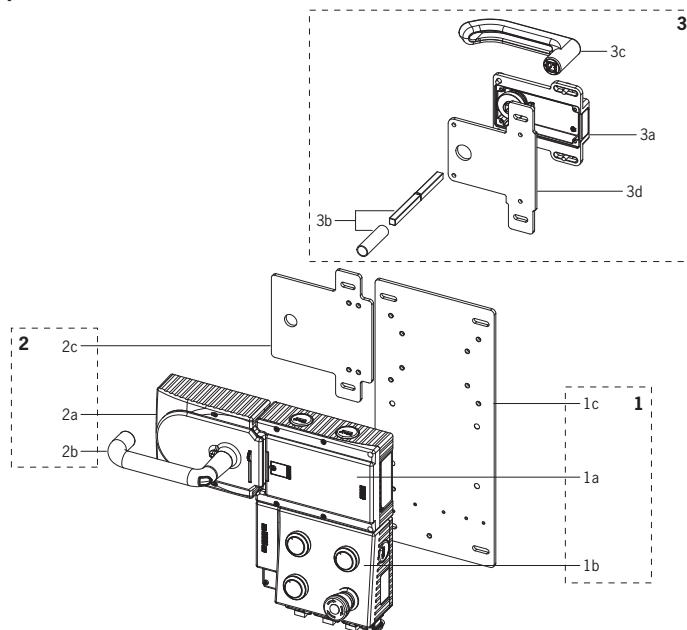
- ▶ Dimension drawings see p. 109
- ▶ Technical data see p. 108
- ▶ Accessories and spare parts see p. 91
- ▶ www.euchner.com

Ordering table

Modules in the set								Ordering data, set	
Evaluation module and bus module						Handle module Order no. separate module	Escape release Order no. separate module	Door hinge (factory setting)	 Order no./item
Version/configuration scheme Order no. module combination		Controls and indicators							
	 incl. adhesive labels	S93 H93	S90 H90	S92 H92	S95 H95	111838	—	right	121866 MGB-L1HB-PNC-R-121866 (Modules pre-assembled on mounting plates)
	 incl. adhesive labels		 *)	 *)	 *)				111839

* The color can be selected using the lens set included.

System components and spare parts



Ordering table for system components, spare parts and accessories

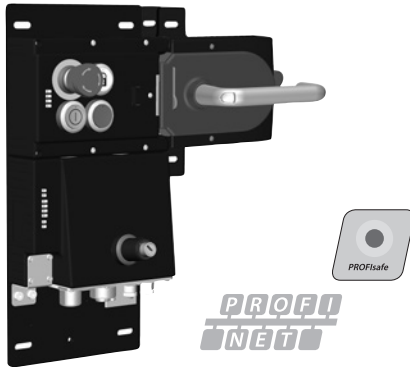
Notice: Only spare parts that are listed with an order number in the following ordering table can be ordered.

Position	Designation	Use/description	Order no./item
1	System unit MGB-L1B-... (guard locking by spring force)	For doors hinged on the left	121867 MGB-L1B-PNC-L-121867
		For doors hinged on the right	121865 MGB-L1B-PNC-R-121865
	comprising:		
	1 a - Evaluation module		-
	1 b - Bus module		-
	1 c - Mounting plate		
2	Handle module MGB-H-... comprising:	For doors hinged on the left	111839 MGB-H-AA1A6-L-111839
		For doors hinged on the right	111838 MGB-H-AA1A6-R-111838
	2 a - Handle module		-
	2 b - Door handle	Color silver	123926 MGB-A-DOORHANDLE-S2-123926
	2 c - Mounting plate	For handle module MGB-H-...	109491 MGB-A-MOUNTINGPLATE-H-109491
3	Escape release MGB-E-... comprising:		106051 MGB-E-A2-106051
			-
	3 a - Escape release		-
	3 b - Escape release shaft	Standard length 115 mm (square 8x8 mm + sleeve)	-
	- Long escape release shaft (instead of item 3b)	Length 250 mm (square 8x8 mm + sleeve 182 mm long)	106761 AY-ERS-250-106761
	3 c - Door handle	Color red	156945 AY-DHL-R1-156945
	3 d - Mounting plate	For escape release MGB-E-...	109492 MGB-A-MOUNTINGPLATE-E-109492

Locking sets MGB-L1...-PN... (guard locking by spring force) with 5 controls or indicators



Cat.
4
PL_e



Details

PROFINET connection

Connection via 7/8" plugs according to ANSI/B93.55M-1981 and M12 plugs according to IEC 61076-2-101.

PROFINET RT switch

Point-to-point topology network structure due to integrated RT switch.

Flexible use as interlocking or guard locking

By means of the corresponding evaluation of the safe device data by the control system, use can be as either interlocking or guard locking (with or without monitoring).

Key-operated switch form V

Form V, 90° angle of rotation with 2 positions. The key latches in position 0 and can be removed in position 1.

Multicode evaluation

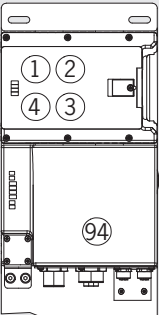
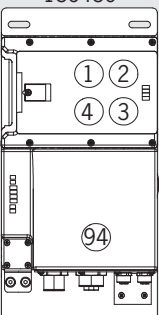
Every suitable handle module is detected by the safety switch.

Further information

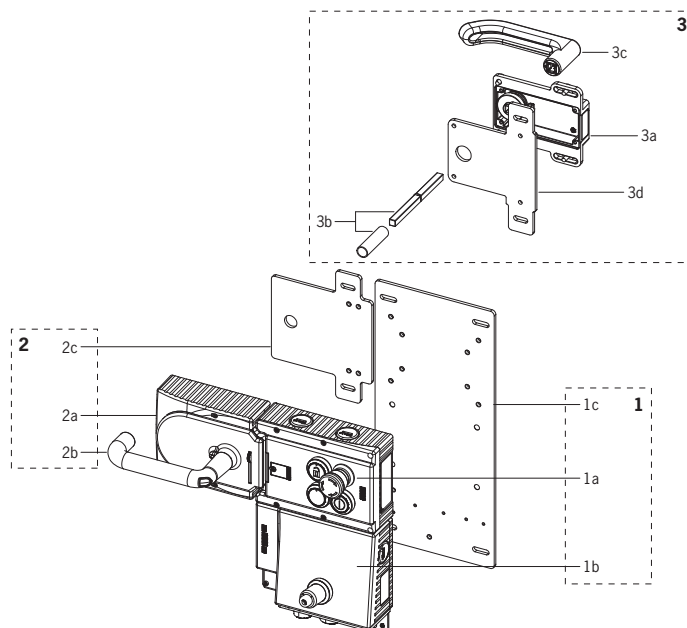
- Dimension drawings see p. 109
- Technical data see p. 108
- Accessories and spare parts see p. 93
- www.euchner.com

- Integrated controls and indicators
- Pre-assembled on mounting plates
- Integrated PROFINET RT switch

Ordering table

Modules in the set										Ordering data, set
Version/configuration scheme Order no. module combination		Controls and indicators					Handle module Order no. separate module	Escape release Order no. separate module	Door hinge (factory setting)	Order no./item
 Evaluation module and bus module										
 PN	136428  incl. adhesive labels	S1	S2 H2	S3 H3	S4 H4	S94	111838	106051	right	136429 MGB-L1HEB-PNA-R-136429 (Modules pre-assembled on mounting plates)
	136430  incl. adhesive labels		 wh	 rd	 gn	 Form V 90°			left	136431 MGB-L1HEB-PNA-L-136431 (Modules pre-assembled on mounting plates)

System components and spare parts



Ordering table for system components, spare parts and accessories

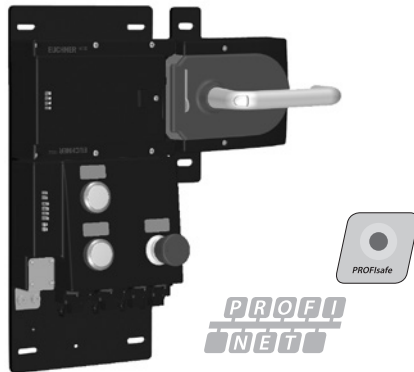
Notice: Only spare parts that are listed with an order number in the following ordering table can be ordered.

Position	Designation	Use/description	Order no./item
1	System unit MGB-L1B-... (guard locking by spring force)	For doors hinged on the left	136430 MGB-L1B-PNA-L-136430
		For doors hinged on the right	136428 MGB-L1B-PNA-R-136428
	comprising:		
	1 a - Evaluation module		-
	1 b - Bus module		-
	1 c - Mounting plate		
2	Handle module MGB-H-... comprising:	For doors hinged on the left	111839 MGB-H-AA1A6-L-111839
		For doors hinged on the right	111838 MGB-H-AA1A6-R-111838
	2 a - Handle module		-
	2 b - Door handle	Color silver	123926 MGB-A-DOORHANDLE-S2-123926
	2 c - Mounting plate	For handle module MGB-H-...	109491 MGB-A-MOUNTINGPLATE-H-109491
3	Escape release MGB-E-... comprising:		106051 MGB-E-A2-106051
			-
	3 a - Escape release		-
	3 b - Escape release shaft	Standard length 115 mm (square 8x8 mm + sleeve)	-
	- Long escape release shaft (instead of item 3b)	Length 250 mm (square 8x8 mm + sleeve 182 mm long)	106761 AY-ERS-250-106761
	3 c - Door handle	Color red	156945 AY-DHL-R1-156945
	3 d - Mounting plate	For escape release MGB-E-...	109492 MGB-A-MOUNTINGPLATE-E-109492

Locking sets MGB-L2...-PN... (guard locking by solenoid force) with 3 controls or indicators



Cat.
4
PLe



- Integrated controls and indicators
- Pre-assembled on mounting plates
- Integrated PROFINET RT switch

Details

PROFINET connection

Connection via push-pull plugs according to IEC 61076-3-117, variant 14, or 7/8" plugs according to ANSI/B93.55M-1981 and M12 plugs according to IEC 61076-2-101.

PROFINET RT switch

Point-to-point topology network structure due to integrated RT switch.

Flexible use as interlocking or guard locking

By means of the corresponding evaluation of the safe device data by the control system, use can be as either interlocking or guard locking (with or without monitoring).

Illuminated emergency stop

Emergency stop with illumination that can be controlled as required.

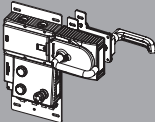
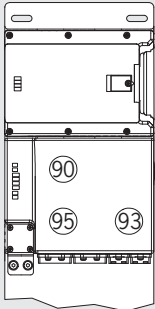
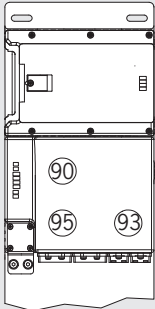
Lens set

The color of the pushbuttons can be selected using the lens set 120344 included.

Further information

- Dimension drawings see p. 109
- Technical data see p. 108
- Accessories and spare parts see p. 96
- www.euchner.com

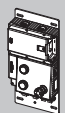
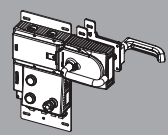
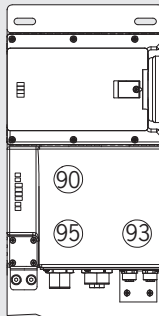
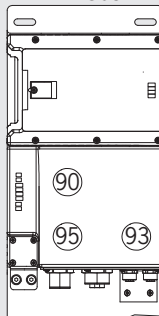
Ordering table

Modules in the set								Ordering data, set
Evaluation module and bus module					Handle module Order no. separate module	Escape release Order no. separate module	Door hinge (factory setting)	 Order no./item
Version/configuration scheme Order no. module combination	Controls and indicators							
 Incl. adhesive labels, push-pull plugs	S93	S90	S95	106049			right	121849 MGB-L2HB-PNA-R-121849 (Modules pre-assembled on mounting plates)
	H93	H90	H95					
 Incl. adhesive labels, push-pull plugs		 *)	 *)	106221	—		left	121854 MGB-L2HB-PNA-L-121854 (Modules pre-assembled on mounting plates)

* The color can be selected using the lens set included.

(Continued on next page)

Ordering table (continued)

Modules in the set							Ordering data, set
Evaluation module and bus module 		Controls and indicators			Handle module Order no. separate module 	Escape release Order no. separate module 	Door hinge (factory setting) 
Version/configuration scheme Order no. module combination		S93 H93	S90 H90	S95 H95			Order no./item
121859  incl. adhesive labels, 7/8" plugs and M12 plugs  PN			 *)	 *)	106049	right	121860 MGB-L2HB-PNA-R-121860 (Modules pre-assembled on mounting plates)
121863  incl. adhesive labels, 7/8" plugs and M12 plugs					106221	left	121864 MGB-L2HB-PNA-L-121864 (Modules pre-assembled on mounting plates)

* The color can be selected using the lens set included.

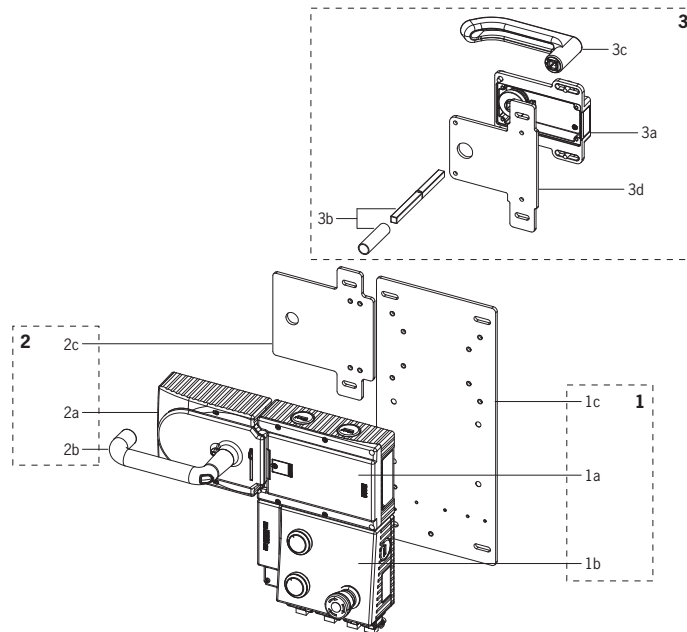
Locking sets MGB-L2...-PN... (guard locking by solenoid force) with 3 controls or indicators



Cat.
4
PLe



System components and spare parts



Ordering table for system components, spare parts and accessories

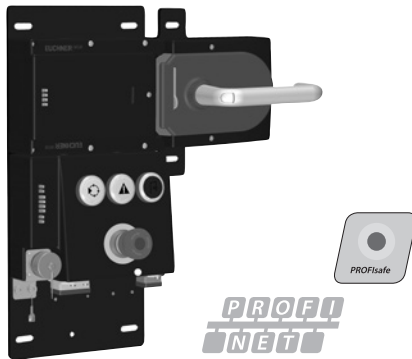
Notice: Only spare parts that are listed with an order number in the following ordering table can be ordered.

Position	Designation	Use/description	Order no./item
1	System unit MGB-L2B-... (guard locking by solenoid force)	For doors hinged on the left	121853 MGB-L2B-PNA-L-121853
		For doors hinged on the right	121863 MGB-L2B-PNA-L-121863
			121848 MGB-L2B-PNA-R-121848
			121859 MGB-L2B-PNA-R-121859
	comprising:		
1 a	- Evaluation module		-
1 b	- Bus module		-
1 c	- Mounting plate		
2	Handle module MGB-H-... comprising:	For doors hinged on the left	106221 MGB-HAA1A2-L-106221
		For doors hinged on the right	106049 MGB-HAA1A2-R-106049
	2 a	- Handle module	-
	2 b	- Door handle	Color silver 123926 MGB-A-DOORHANDLE-S2-123926
	2 c	- Mounting plate	For handle module MGB-H-... 109491 MGB-A-MOUNTINGPLATE-H-109491
3	Escape release MGB-E-... comprising:		106051 MGB-E-A2-106051
	3 a	- Escape release	-
	3 b	- Escape release shaft	Standard length 115 mm (square + sleeve) -
		- Long escape release shaft (instead of item 3b)	Length 250 mm (square 8x8 mm + sleeve 182 mm long) 106761 AY-ERS-250-106761
	3 c	- Door handle	Color red 156945 AY-DHL-R1-156945
	3 d	- Mounting plate	For escape release MGB-E-... 109492 MGB-A-MOUNTINGPLATE-E-109492

Locking sets MGB-L2...-PN... (guard locking by solenoid force) with 4 controls or indicators



Cat.
4
PLe



Details

PROFINET connection

Connection via push-pull plugs according to IEC 61076-3-117, variant 14.

PROFINET RT switch

Point-to-point topology network structure due to integrated RT switch.

Flexible use as interlocking or guard locking

By means of the corresponding evaluation of the safe device data by the control system, use can be as either interlocking or guard locking (with or without monitoring).

Connection for enabling switch

The devices have an M12 plug connector for the direct connection of an enabling switch (e.g. ZSB, order no. 077029).

Illuminated emergency stop

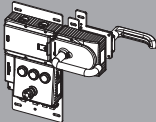
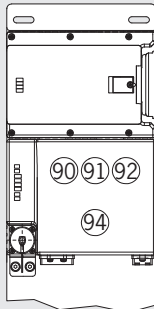
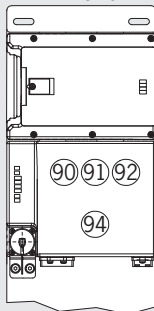
Emergency stop with illumination that can be controlled as required.

Further information

- Dimension drawings see p. 109
- Technical data see p. 108
- Accessories and spare parts see p. 96
- www.euchner.com

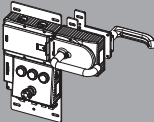
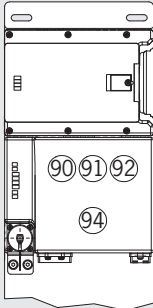
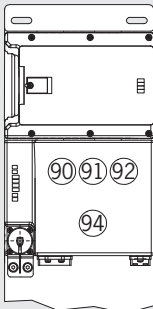
- Integrated controls and indicators
- Pre-assembled on mounting plates
- Integrated PROFINET RT switch

Ordering table

Modules in the set								Ordering data, set	
Evaluation module and bus module						Handle module Order no. separate module	Escape release Order no. separate module	Door hinge (factory setting)	 Order no./item
Version/configuration scheme Order no. module combination	Controls and indicators								
 PN	 Plug connector X14 for enabling switch, incl. adhesive labels, push-pull plugs	S94 H94	S90 H90	S91 H91	S92 H92	111838	—	right	117025 MGB-L2HB-PNC-R-117025 (Modules pre-assembled on mounting plates)
	 Plug connector X14 for enabling switch, incl. adhesive labels, push-pull plugs		 wh	 ye	 bu				

(Continued on next page)

Ordering table (continued)

Modules in the set								Ordering data, set	
Evaluation module and bus module						Handle module Order no. separate module	Escape release Order no. separate module	Door hinge (factory setting)	 Order no./item
Version/configuration scheme Order no. module combination	Controls and indicators								
	 Plug connector X14 for enabling switch, incl. adhesive labels, push-pull plugs	S94 H94	S90 H90	S91 H91	S92 H92	111838	163885	right	163750 MGB-L2HEB-PNC-R-163750 (Modules pre-assembled on mounting plates)
	 Plug connector X14 for enabling switch, incl. adhesive labels, push-pull plugs		 wh	 ye	 bu				

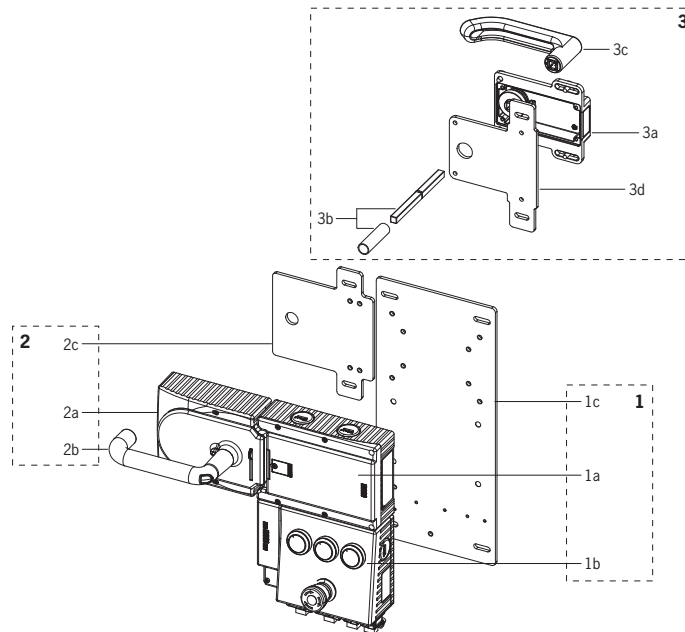
Locking sets MGB-L2...-PN... (guard locking by solenoid force) with 4 controls or indicators



Cat.
4
PLe



System components and spare parts



Ordering table for system components, spare parts and accessories

Notice: Only spare parts that are listed with an order number in the following ordering table can be ordered.

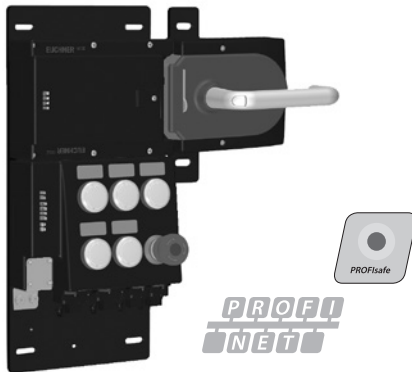
Position	Designation	Use/description	Order no./item
1	System unit MGB-L2B-... (guard locking by solenoid force)	For doors hinged on the left	117026 MGB-L2B-PNA-L-121838
		For doors hinged on the right	117024 MGB-L2B-PNA-R-121836
	comprising:		
	1 a - Evaluation module		-
	1 b - Bus module		-
	1 c - Mounting plate		
2	Handle module MGB-H-... comprising:	For doors hinged on the left	111839 MGB-H-AA1A6-L-111839
		For doors hinged on the right	111838 MGB-H-AA1A6-R-111838
	2 a - Handle module		-
	2 b - Door handle	Color silver	123926 MGB-A-DOORHANDLE-S2-123926
	2 c - Mounting plate	For handle module MGB-H-...	109491 MGB-A-MOUNTINGPLATE-H-109491
3	Escape release MGB-E-... comprising:		163885 MGB-E-A4-163885
			-
	3 b - Escape release shaft	Special length 112 mm (square 8x8 mm + sleeve 42 mm long)	-
	- Long escape release shaft (instead of item 3b)	Length 250 mm (square 8x8 mm + sleeve 182 mm long)	106761 AY-ERS-250-106761
	3 c - Door handle	Color red	156945 AY-DHL-R1-156945
	3 d - Mounting plate	For escape release MGB-E-...	109492 MGB-A-MOUNTINGPLATE-E-109492



Locking sets MGB-L2...-PN... (guard locking by solenoid force) with 6 controls or indicators



Cat.
4
PL_e



Details

PROFINET connection

Connection via push-pull plugs according to IEC 61076-3-117, variant 14.

PROFINET RT switch

Point-to-point topology network structure due to integrated RT switch.

Flexible use as interlocking or guard locking

By means of the corresponding evaluation of the safe device data by the control system, use can be as either interlocking or guard locking (with or without monitoring).

Illuminated emergency stop

Emergency stop with illumination that can be controlled as required.

Lens set

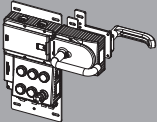
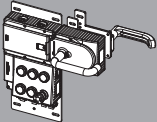
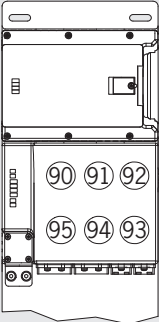
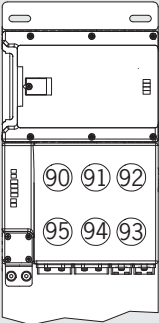
The color of the pushbuttons can be selected using the lens set 120344 included.

Further information

- Dimension drawings see p. 109
- Technical data see p. 108
- Accessories and spare parts see p. 103
- www.euchner.com

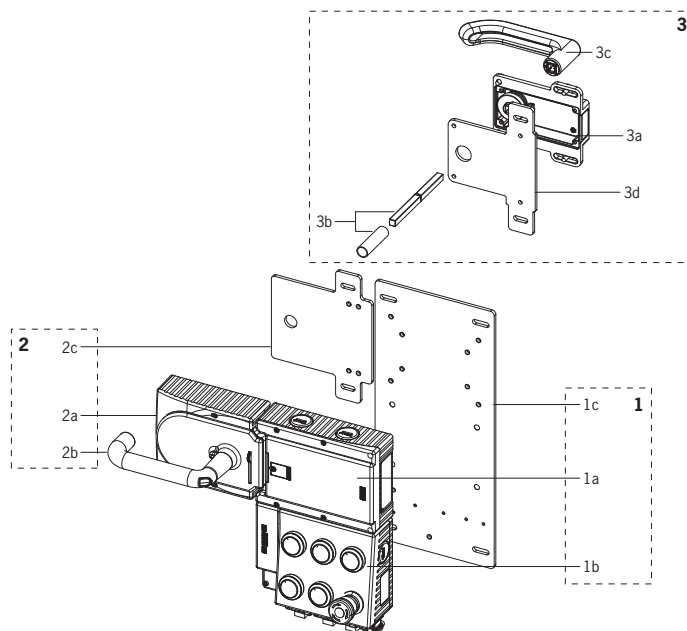
- Integrated controls and indicators
- Pre-assembled on mounting plates
- Integrated PROFINET RT switch

Ordering table

Modules in the set										Ordering data, set	
Evaluation module and bus module								 Handle module Order no. separate module	 Escape release Order no. separate module	 Door hinge (factory setting)	 Order no./item
Version/configuration scheme Order no. module combination		Controls and indicators									
 121836 incl. adhesive labels		S93	S90	S91	S92	S94	S95	118838	-	right	121837 MGB-L2HB-PNA-R-121837 (Modules pre-assembled on mounting plates)
		H93	H90	H91	H92	H94	H94				
 121838 incl. adhesive labels		 *)	 *)	 *)	 *)	 *)	 *)	118839		left	121839 MGB-L2HB-PNA-L-121839 (Modules pre-assembled on mounting plates)

* The color can be selected using the lens set included.

System components and spare parts

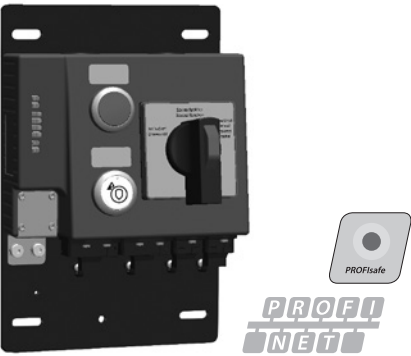


Ordering table for system components, spare parts and accessories

Notice: Only spare parts that are listed with an order number in the following ordering table can be ordered.

Position	Designation	Use/description	Order no./item
1	System unit MGB-L2B-... (guard locking by solenoid force)	For doors hinged on the left	121838 MGB-L2B-PNA-L-121838
		For doors hinged on the right	121836 MGB-L2B-PNA-R-121836
	comprising:		
	1 a - Evaluation module		-
	1 b - Bus module		-
	1 c - Mounting plate		
2	Handle module MGB-H-... comprising:	For doors hinged on the left	111839 MGB-H-AA1A6-L-111839
		For doors hinged on the right	111838 MGB-H-AA1A6-R-111838
	2 a - Handle module		-
	2 b - Door handle	Color silver	123926 MGB-A-DOORHANDLE-S2-123926
	2 c - Mounting plate	For handle module MGB-H-...	109491 MGB-A-MOUNTINGPLATE-H-109491
3	Escape release MGB-E-... comprising:		106051 MGB-E-A2-106051
			-
	3 a - Escape release		-
	3 b - Escape release shaft	Standard length 115 mm (square 8x8 mm + sleeve)	-
	- Long escape release shaft (instead of item 3b)	Length 250 mm (square 8x8 mm + sleeve 182 mm long)	106761 AY-ERS-250-106761
	3 c - Door handle	Color red	156945 AY-DHL-R1-156945
	3 d - Mounting plate	For escape release MGB-E-...	109492 MGB-A-MOUNTINGPLATE-E-109492

Control modules MGB-...-PN



- Pre-assembled on mounting plates
- Integrated PROFINET RT switch

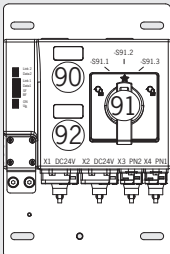
Details

- PROFINET connection**
Connection via push-pull plugs according to IEC 61076-3-117, variant 14.
- PROFINET RT switch**
Point-to-point topology network structure due to integrated RT switch.
- Selector switch**
- Selector switch with 3 positions (form V, 2x45°). The switch latches in all three positions.
 - Selector switch illuminated with 3 positions (form V, 2x60°). The switch latches in three positions. Switch position only left and right. Both contacts are open in center position.

Further information

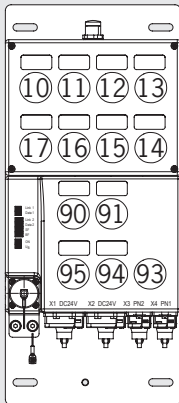
- Dimension drawings see p. 109
- Technical data see p. 108
- Accessories and spare parts see p. 59
- www.euchner.com

Ordering table

Bus module and/or control module										Order no./item
Version/configuration scheme		Controls and indicators								
 PN	 incl. adhesive labels	H90	S92 H92	S91	—	—	—	—	—	
					—	—	—	—	—	
		 rd	 wh	Form V 2x45° 	—	—	—	—	—	
										123759 MGB-B-A1W2A2-PN-123759 (Modules pre-assembled on mounting plates)

(Continued on next page)

Ordering table (continued)

Bus module and/or control module										Order no./item
Version/configuration scheme	Controls and indicators									
	S10 H10	S11 H11	S12 H12	S13 H13	S14 H14	S15 H15	S16 H16	S17 H17		
 Plug connector X14 for enabling switch ZSB077029, socket X6 for stacklight indicator, incl. adhesive labels	 wh	 wh	 wh	 wh	Form V, 2x60°  	Form V, 2x60°  	Form V, 2x60°  	Form V, 2x60°  	114744 MGB-CB-PN-114744 (Modules pre-assembled on mounting plates)	
	S93	S90 H90	S91 H91	S94 H94	S95 H95	— —	— —	— —		
		 wh	 wh	Form V, 2x60°  	Form V, 2x60°  	— —	— —	— —		

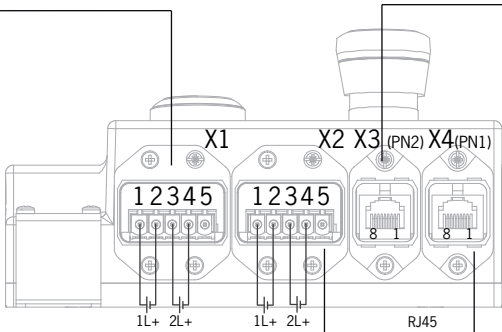
Assignment of the terminal plugs

Terminal assignment for version with push-pull plugs

Pin	Description
X1.1	L1 operating voltage DC 24 V
X1.2	N1 operating voltage 0 V
X1.3	L2 auxiliary voltage* DC 24 V
X1.4	N2 auxiliary voltage* 0 V
X1.5	Functional earth

* The auxiliary voltage is not required for the MGB system

Pin	Description
X2.1	L1 operating voltage DC 24 V
X2.2	N1 operating voltage 0 V
X2.3	L2 auxiliary voltage* DC 24 V
X2.4	N2 auxiliary voltage* 0 V
X2.5	Functional earth



Pin	Description
X3.1	Receive Data RD+
X3.2	Receive Data RD-
X3.3	Transmit Data TD+
X3.4	n.c.
X3.5	n.c.
X3.6	Transmit Data TD-
X3.7	n.c.
X3.8	n.c.

Pin	Description
X4.1	Receive Data RD+
X4.2	Receive Data RD-
X4.3	Transmit Data TD+
X4.4	n.c.
X4.5	n.c.
X4.6	Transmit Data TD-
X4.7	n.c.
X4.8	n.c.

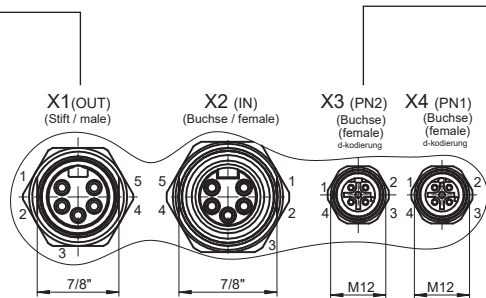
Terminal assignment for version with 7/8" and M12 plugs

Pin	Description
X1.1	N2 auxiliary voltage *0 V
X1.2	N1 operating voltage 0 V
X1.3	Functional earth
X1.4	L1 operating voltage DC 24 V
X1.5	L2 auxiliary voltage* DC 24 V

X2: for looping through for connected devices

Pin	Description
X2.1	N2 auxiliary voltage *0 V
X2.2	N1 operating voltage 0 V
X2.3	Functional earth
X2.4	L1 operating voltage DC 24 V
X2.5	L2 auxiliary voltage* DC 24 V

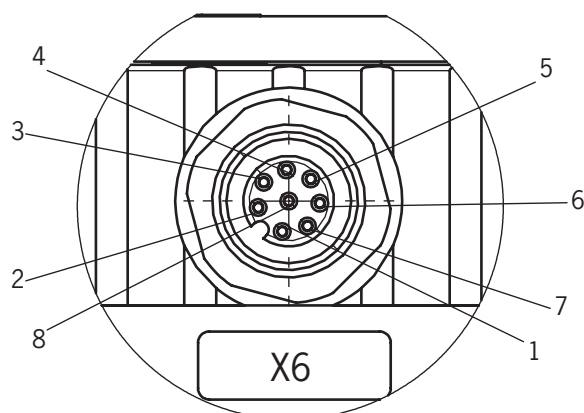
* The auxiliary voltage is not required for the MGB system



Pin	Description
X3.1	Transmit Data +TD
X3.2	Receive Data +RD
X3.3	Transmit Data -TD_N
X3.4	Receive Data -RD_N
Functional earth on plug housing	

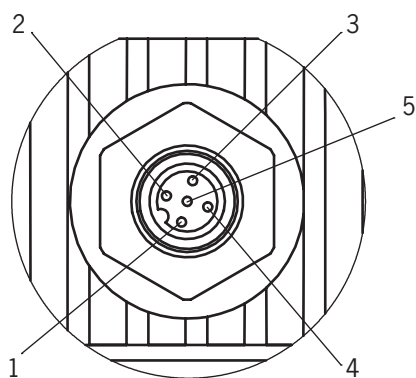
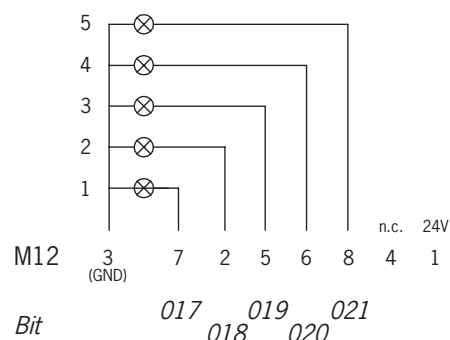
Pin	Description
X4.1	Transmit Data +TD
X4.2	Receive Data +RD
X4.3	Transmit Data -TD_N
X4.4	Receive Data -RD_N
Functional earth on plug housing	

Terminal assignment, plug connector X6 for stack light connection module



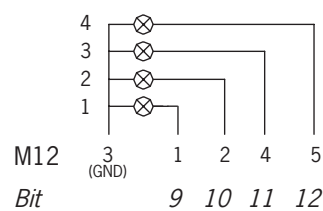
M 12

Built-in plug connector (8-pin/socket), aligned
View of connection side

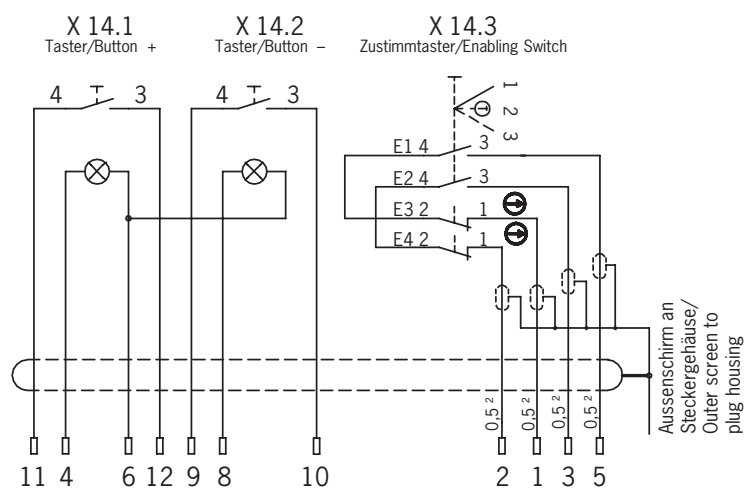


M 12

Built-in plug connector (5-pin/socket), aligned
View of connection side



Terminal assignment, plug connector X14 for enabling switch (e.g. ZSB077029)



Technical data

Parameter	Value
s _{gr} max. door position	65 mm
Housing material	Fiber glass reinforced plastic Die-cast zinc, nickel-plated, stainless steel, powder-coated sheet steel
Dimensions	See dimension drawing
Ambient temperature	-20 ... +55 °C
Degree of protection	IP54
Safety class	III
Degree of contamination	3
Installation position	Any
Locking force F _{zh}	2000 N
Connection options, power supply	2 x push-pull power ¹⁾ or 2 x plug connectors 7/8" according to ANSI/B93.55M-1981
Connection, bus	2 x RJ 45, push-pull, according to IEC 61076-3-117 variant 14, screened ¹⁾ or 2 x M12 plug connectors (d-coded) according to IEC 61076-2-101
Connecting cable, bus	PROFINET I/O cable, at least cat. 5e
Operating voltage U _b	DC 24 V +10%/-15% (PELV – see electrical connection)
Current consumption, max.	500 mA
Max. feed-in current in the connection block (push-pull plug connector)	4000 mA
Fuse protection for power supply, external	Min. 1 A slow-blow
Safety outputs	PROFIsafe acc. to IEC 61784-3-3
Rated insulation voltage U _i	75 V
Rated impulse withstand voltage U _{imp}	0.5 kV
Resilience to vibration and shock	In accordance with EN 60947-5-3
EMC protection requirements	In accordance with EN 61000-4 and DIN EN 61326-3-1
Switching frequency, max.	1 Hz
Risk times, max. (turn-off times) ²⁾	
- Emergency stop	250 ms
- Enabling switch	250 ms
- Operating mode selector	220 ms
- Door position	550 ms
- Bolt position	550 ms
- Guard locking	550 ms
Reliability values acc. to EN ISO 13849-1	
Category	4 (EN 13849-1:2008-12)
Performance Level	PL e (EN 13849-1:2008-12)
MTTF _d ³⁾	91 years
DC	99%
Mission time	20 years
PFH _d ³⁾	2.54 x 10 ⁻⁸ /h
PFH _d for the evaluation of the emergency stop	2.5 x 10 ⁻⁸ /h
B _{10d} ⁴⁾	
- Emergency stop	1.3 x 10 ⁵
- Enabling switch	Acc. to manufacturer's specifications

1) The document *PROFINET Cabling and Interconnection Technology* from the PNO aids in the correct selection of cables.

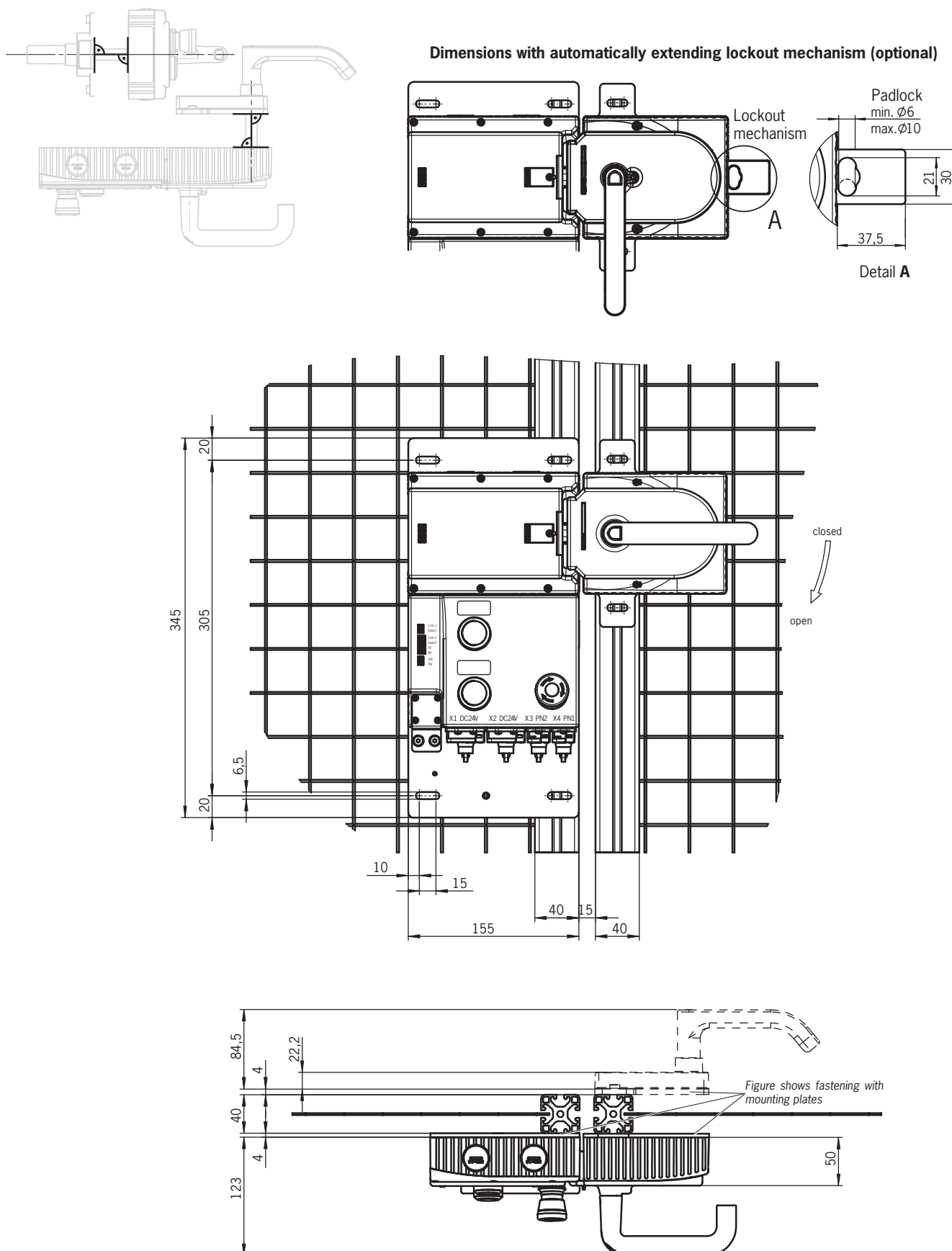
2) The risk time is the maximum time between the change in the input status and the clearing of the corresponding bit in the bus protocol.

3) Fixed failure rate without consideration of faults in wearing parts.

4) Information regarding wearing parts without consideration of fixed failure rates in electronic components.

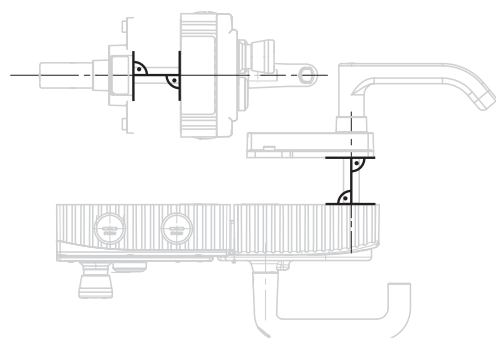
Dimension drawings

Locking set

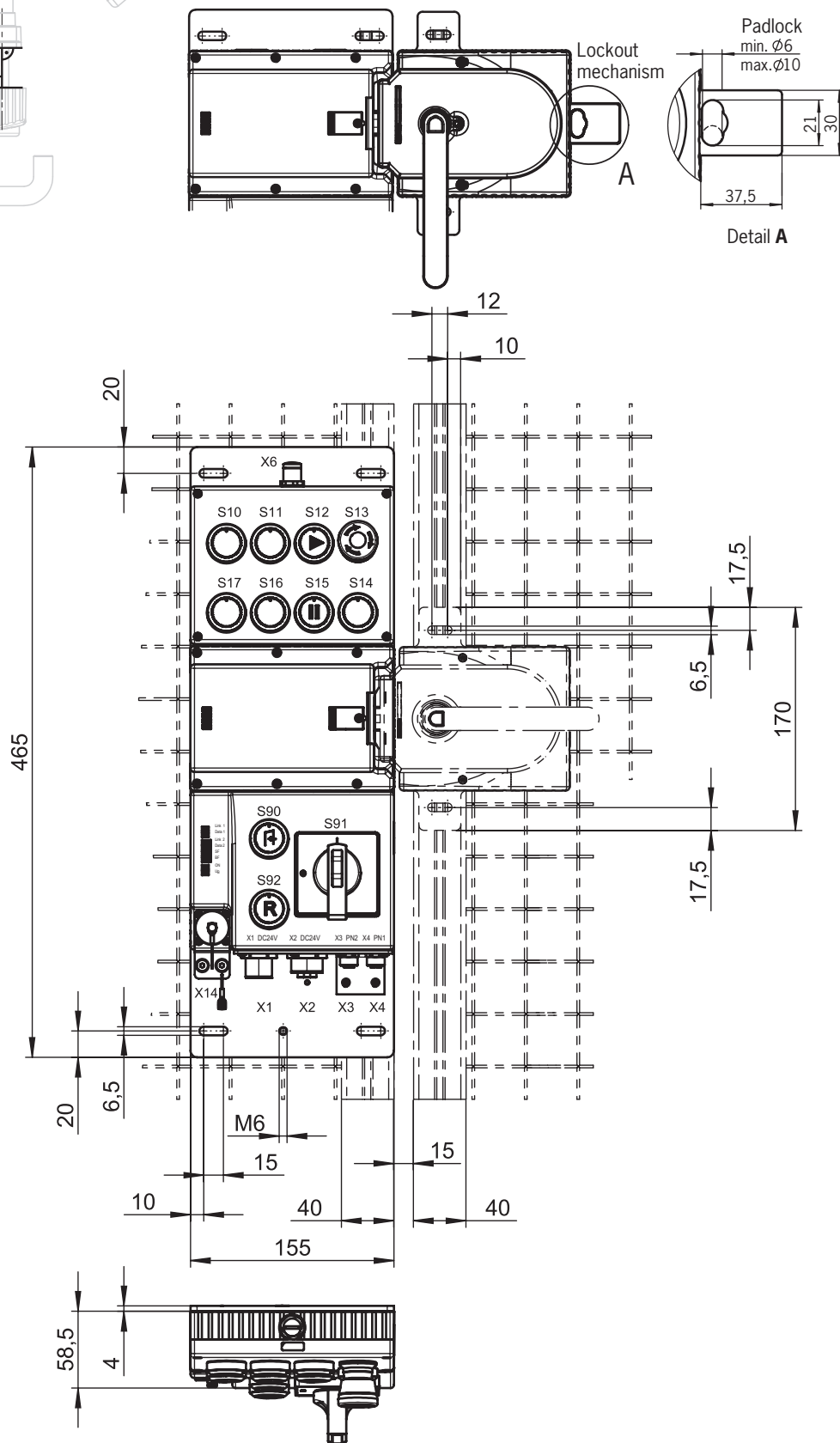


(Figure shows version for doors hinged on the right, pre-assembled on mounting plates)

Locking set

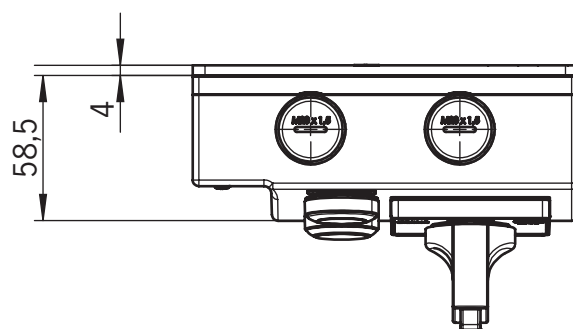
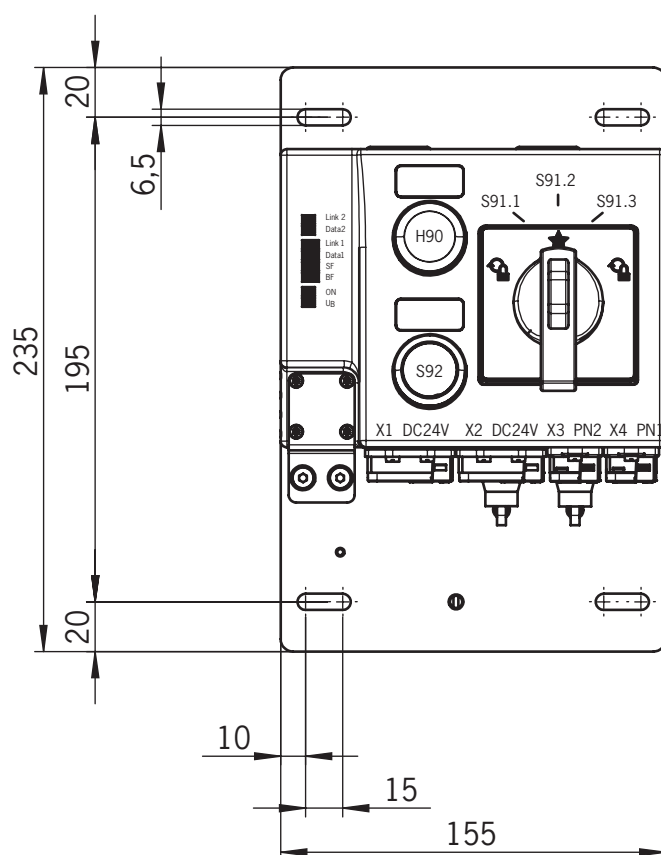
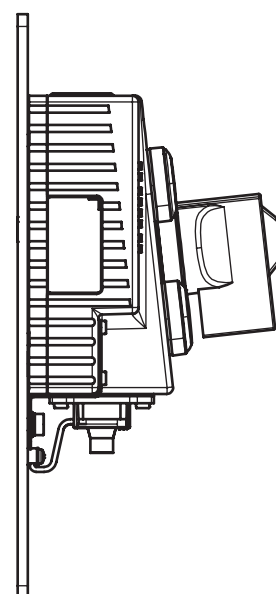
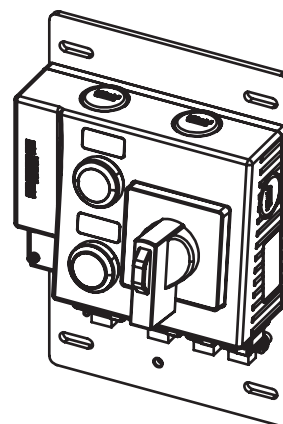


Dimensions with automatically extending lockout mechanism (optional)

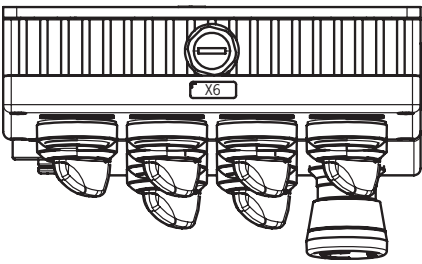
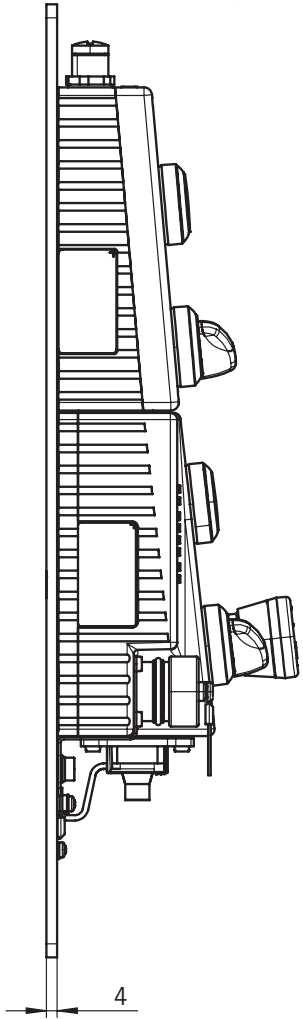
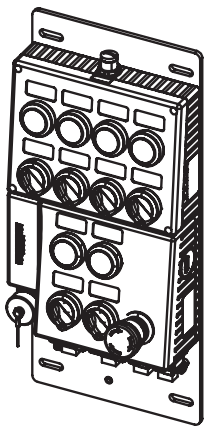
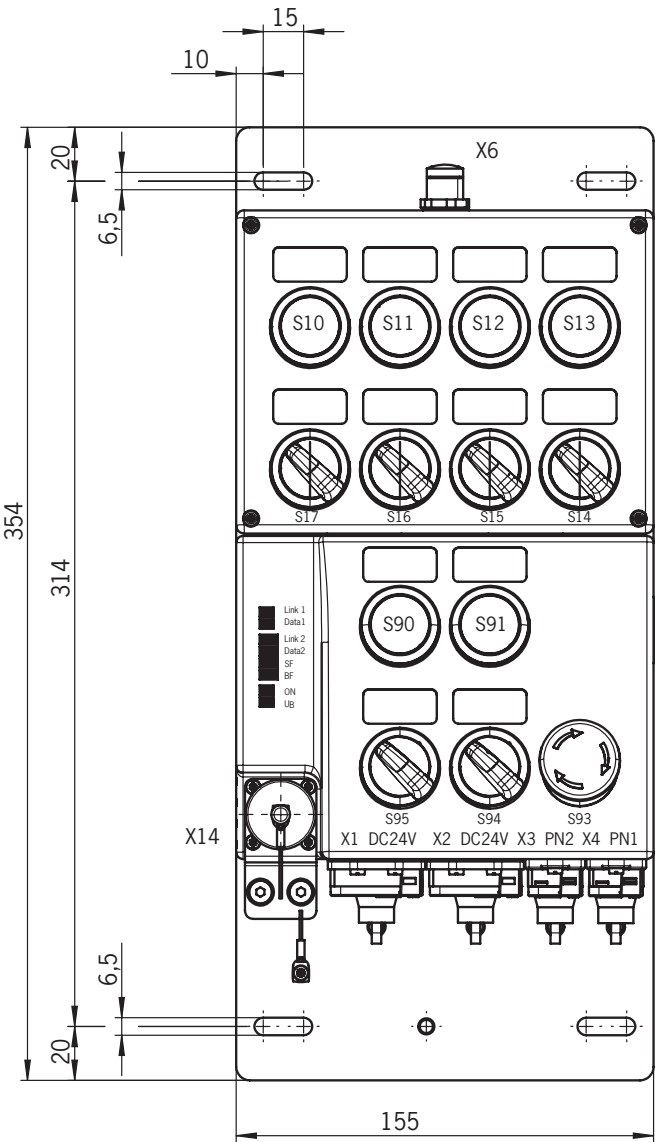


(Figure shows version for doors hinged on the right, pre-assembled on mounting plates)

Control module MGB-B-...-PN on mounting plate (example based on MGB-B-A1W2A2-PN-123759)

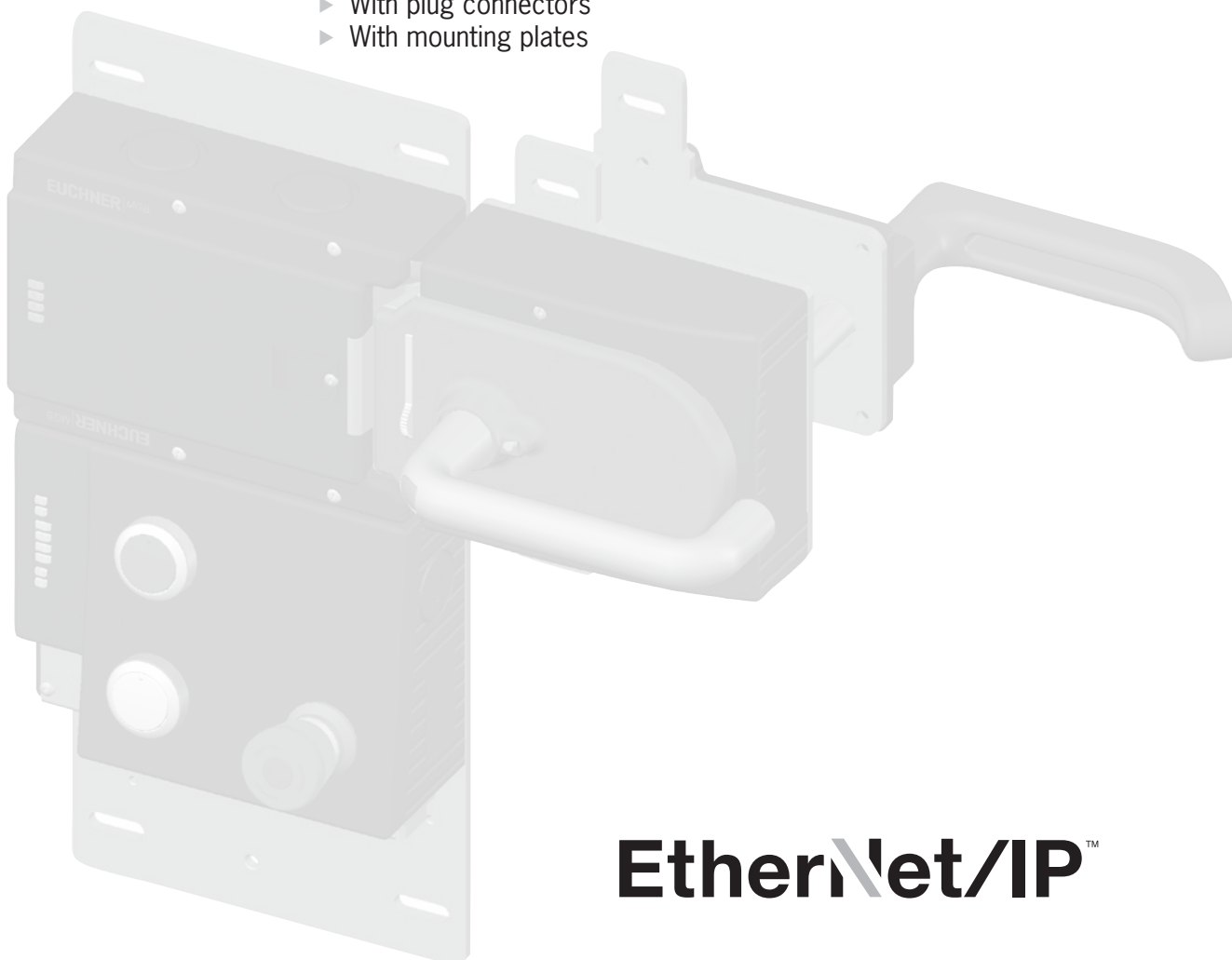


Control module MGB-CB-...-PN on mounting plate
(example based on MGB-CB-PN-114744)



Complete sets system family MGB-EI

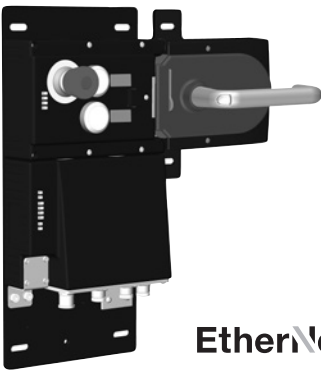
- ▶ EtherNET/IP
- ▶ With pushbuttons and emergency stop
- ▶ With plug connectors
- ▶ With mounting plates



EtherNet/IP™

Locking sets MGB-L1...-EI... (guard locking by spring force)	114 - 119
with 3 controls and indicators	114
with 4 controls and indicators	116
with 5 controls and indicators	118
Locking sets MGB-L2...-EI... (guard locking by solenoid force)	120 - 123
with 3 controls and indicators	120
with 4 controls and indicators	123
Assignment of the terminal plugs	124
Technical data	125
Dimension drawing	126

Locking sets MGB-L1...-EI... (guard locking by spring force) with 3 controls or indicators



EtherNet/IP™

- ▶ Integrated controls and indicators
- ▶ Pre-assembled on mounting plates
- ▶ Integrated EtherNET/IP switch

Details

EtherNET/IP connection

Connection via M12 plugs according to IEC 61076-2-101.

EtherNET/IP switch

Point-to-point topology network structure due to integrated EtherNET/IP switch.

Flexible use as interlocking or guard locking

By means of the corresponding evaluation of the safe device data by the control system, use can be as either interlocking or guard locking (with or without monitoring).

Illuminated emergency stop

Emergency stop with illumination that can be controlled as required.

Lens set

The color of the pushbuttons can be selected using the lens set 120344 included.

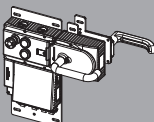
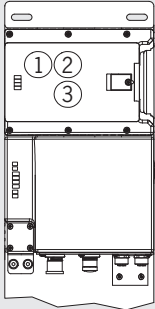
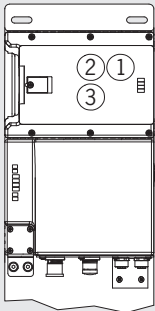
Adhesive labels

Devices with adhesive labels have pre-formed recesses. The adhesive labels enclosed (standard size 12.5 x 27 mm) can be affixed in these recesses.

Further information

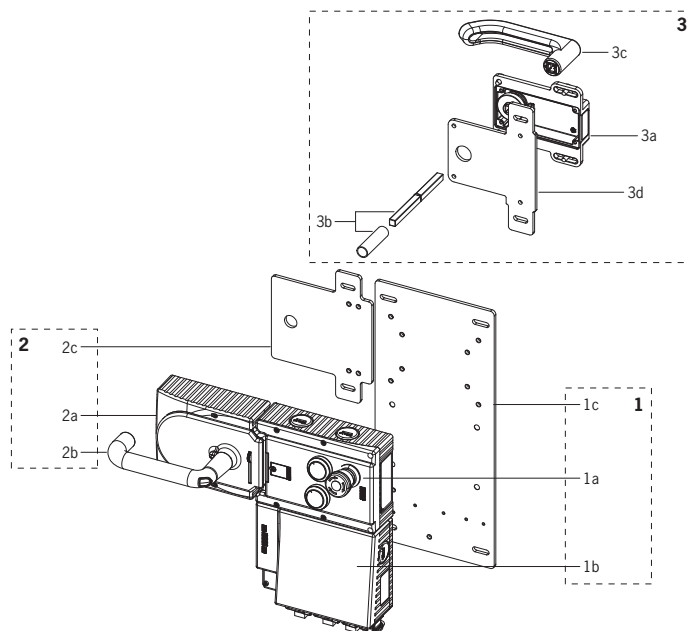
- ▶ Dimension drawings see p. 126
- ▶ Technical data see p. 125
- ▶ Accessories and spare parts see p. 115
- ▶ www.euchner.com

Ordering table

Modules in the set								Ordering data, set
Evaluation module and bus module					 Handle module Order no. separate module	 Escape release Order no. separate module	 Door hinge (factory setting)	
Version/configuration scheme Order no. module combination		Controls and indicators						Order no./item
 incl. adhesive labels	S1	S2	S3	111838	—	right	126636 MGB-L1HB-EIAR-126636 (Modules pre-assembled on mounting plates)	
	H1	H2	H3					
 incl. adhesive labels		 *)	 *)	111839	—	left	126638 MGB-L1HB-EIAL-126638 (Modules pre-assembled on mounting plates)	

* The color can be selected using the lens set included.

System components and spare parts



Ordering table for system components, spare parts and accessories

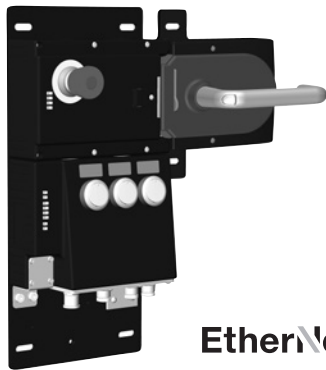
Notice: Only spare parts that are listed with an order number in the following ordering table can be ordered.

Position	Designation	Use/description	Order no./item
1	System unit MGB-L1B-... (guard locking by spring force)	For doors hinged on the left	126637 MGB-L1B-EIA-L-126637
		For doors hinged on the right	126635 MGB-L1B-EIA-R-126635
	comprising:		
	1 a - Evaluation module		-
	1 b - Bus module		-
	1 c - Mounting plate		
2	Handle module MGB-H-... comprising:	For doors hinged on the left	111839 MGB-H-AA1A6-L-111839
		For doors hinged on the right	111838 MGB-H-AA1A6-R-111838
	2 a - Handle module		-
	2 b - Door handle	Color silver	123926 MGB-A-DOORHANDLE-S2-123926
	2 c - Mounting plate	For handle module MGB-H-...	109491 MGB-A-MOUNTINGPLATE-H-109491
3	Escape release MGB-E-... comprising:		106051 MGB-E-A2-106051
			-
	3 a - Escape release		-
	3 b - Escape release shaft	Standard length 115 mm (square 8x8 mm + sleeve)	-
	- Long escape release shaft (instead of item 3b)	Length 250 mm (square 8x8 mm + sleeve 182 mm long)	106761 AY-ERS-250-106761
	3 c - Door handle	Color red	156945 AY-DHL-R1-156945
	3 d - Mounting plate	For escape release MGB-E-...	109492 MGB-A-MOUNTINGPLATE-E-109492

Locking sets MGB-L1...-EI... (guard locking by spring force) with 4 controls or indicators



Cat.
4
PL_e



EtherNet/IP™

- ▶ Integrated controls and indicators
- ▶ Pre-assembled on mounting plates
- ▶ Integrated EtherNET/IP switch

Details

EtherNET/IP connection

Connection via M12 plugs according to IEC 61076-2-101.

EtherNET/IP switch

Point-to-point topology network structure due to integrated EtherNET/IP switch.

Flexible use as interlocking or guard locking

By means of the corresponding evaluation of the safe device data by the control system, use can be as either interlocking or guard locking (with or without monitoring).

Illuminated emergency stop

Emergency stop with illumination that can be controlled as required.

Lens set

The color of the pushbuttons can be selected using the lens sets 120344 and 120377 included.

Multicode evaluation

Every suitable handle module is detected by the safety switch.

Further information

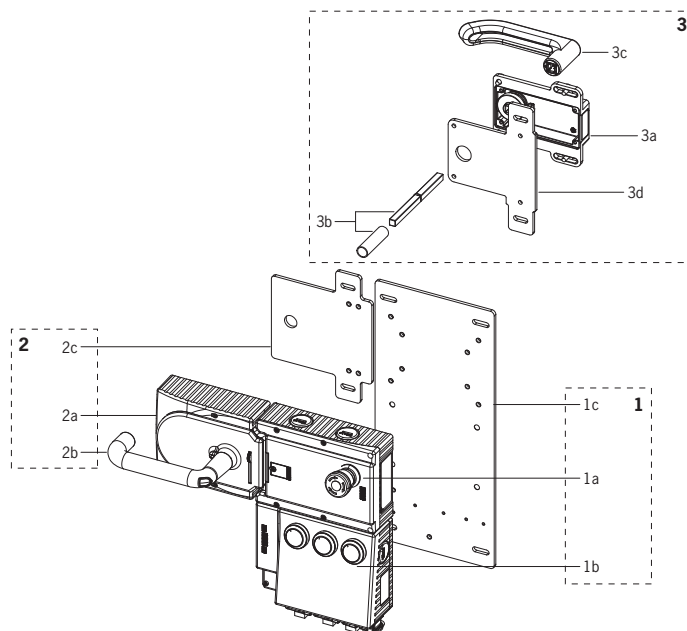
- ▶ Dimension drawings see p. 126
- ▶ Technical data see p. 125
- ▶ Accessories and spare parts see p. 117
- ▶ www.euchner.com

Ordering table

Modules in the set								Ordering data, set	
Evaluation module and bus module						Handle module Order no. separate module	Escape release Order no. separate module	Door hinge (factory setting)	
Version/configuration scheme Order no. module combination		Controls and indicators							Order no./item
	128323	S1 H1	S90 H90	S91 H91	S92 H92	111838	-	right	128324 MGB-L1HB-EIA-R-128324 (Modules pre-assembled on mounting plates)
EtherNet/IP EI	128326		 *)	 *)	 *)	111839		left	128327 MGB-L1HB-EIA-L-128327 (Modules pre-assembled on mounting plates)

* The color can be selected using the lens sets included.

System components and spare parts

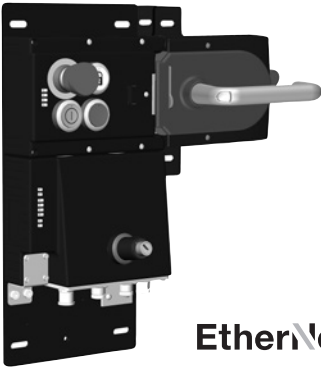


Ordering table for system components, spare parts and accessories

Notice: Only spare parts that are listed with an order number in the following ordering table can be ordered.

Position	Designation	Use/description	Order no./item
1	System unit MGB-L1B-... (guard locking by spring force)	For doors hinged on the left	128326 MGB-L1B-EIA-L-128326
		For doors hinged on the right	128323 MGB-L1B-EIA-R-128323
	comprising:		
	1 a - Evaluation module		-
	1 b - Bus module		-
	1 c - Mounting plate		
2	Handle module MGB-H-... comprising:	For doors hinged on the left	111839 MGB-H-AA1A6-L-111839
		For doors hinged on the right	111838 MGB-H-AA1A6-R-111838
	2 a - Handle module		-
	2 b - Door handle	Color silver	123926 MGB-A-DOORHANDLE-S2-123926
	2 c - Mounting plate	For handle module MGB-H-...	109491 MGB-A-MOUNTINGPLATE-H-109491
3	Escape release MGB-E-... comprising:		106051 MGB-E-A2-106051
			-
	3 a - Escape release		-
	3 b - Escape release shaft	Standard length 115 mm (square 8x8 mm + sleeve)	-
	- Long escape release shaft (instead of item 3b)	Length 250 mm (square 8x8 mm + sleeve 182 mm long)	106761 AY-ERS-250-106761
	3 c - Door handle	Color red	156945 AY-DHL-R1-156945
	3 d - Mounting plate	For escape release MGB-E-...	109492 MGB-A-MOUNTINGPLATE-E-109492

Locking sets MGB-L1...-EI... (guard locking by spring force) with 5 controls or indicators



EtherNet/IP™

- Integrated controls and indicators
- Pre-assembled on mounting plates
- Integrated EtherNET/IP switch

Details

EtherNET/IP connection

Connection via M12 plugs according to IEC 61076-2-101.

EtherNET/IP switch

Point-to-point topology network structure due to integrated EtherNET/IP switch.

Flexible use as interlocking or guard locking

By means of the corresponding evaluation of the safe device data by the control system, use can be as either interlocking or guard locking (with or without monitoring).

Key-operated switch form V

Form V, 90° angle of rotation with 2 positions. The key latches in position 0 and can be removed in position 1.

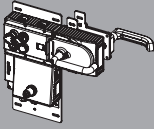
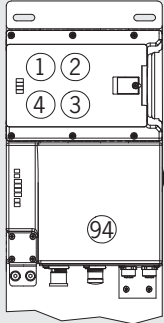
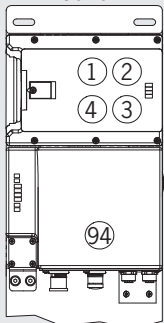
Multicode evaluation

Every suitable handle module is detected by the safety switch.

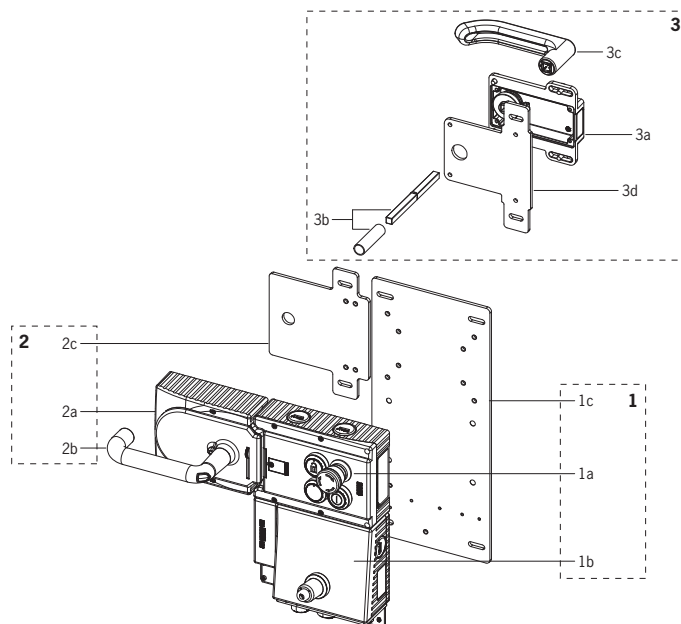
Further information

- Dimension drawings see p. 126
- Technical data see p. 125
- Accessories and spare parts see p. 119
- www.euchner.com

Ordering table

Modules in the set										Ordering data, set
Version/configuration scheme Order no. module combination		Controls and indicators					Handle module Order no. separate module	Escape release Order no. separate module	Door hinge (factory setting)	Order no./item
										
	136466 	S1	S2 H2	S3 H3	S4 H4	S94	111838	106051	right	136467 MGB-L1HEB-EIAR-136647 (Modules pre-assembled on mounting plates)
	136464 		 wh	 rd	 gn	 Form V 90°			left	136465 MGB-L1HEB-EIA-L-136645 (Modules pre-assembled on mounting plates)

System components and spare parts



Ordering table for system components, spare parts and accessories

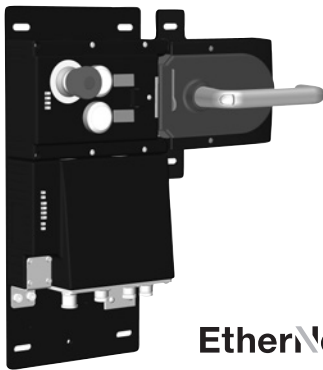
Notice: Only spare parts that are listed with an order number in the following ordering table can be ordered.

Position	Designation	Use/description	Order no./item
1	System unit MGB-L1B-... (guard locking by spring force)	For doors hinged on the left	136464 MGB-L1B-EIA-L-136464
		For doors hinged on the right	136647 MGB-L1B-EIA-R-136647
	comprising:		
	1 a - Evaluation module		-
	1b - Bus module		-
	1c - Mounting plate		
2	Handle module MGB-H-... comprising:	For doors hinged on the left	111839 MGB-H-AA1A6-L-111839
		For doors hinged on the right	111838 MGB-H-AA1A6-R-111838
	2 a - Handle module		-
	2b - Door handle	Color silver	123926 MGB-A-DOORHANDLE-S2-123926
	2c - Mounting plate	For handle module MGB-H-...	109491 MGB-A-MOUNTINGPLATE-H-109491
3	Escape release MGB-E-... comprising:		106051 MGB-E-A2-106051
			-
	3 a - Escape release		-
	3b - Escape release shaft	Standard length 115 mm (square 8x8 mm + sleeve)	-
	- Long escape release shaft (instead of item 3b)	Length 250 mm (square 8x8 mm + sleeve 182 mm long)	106761 AY-ERS-250-106761
	3c - Door handle	Color red	156945 AY-DHL-R1-156945
	3d - Mounting plate	For escape release MGB-E-...	109492 MGB-A-MOUNTINGPLATE-E-109492

Locking sets MGB-L2...-EI... (guard locking by solenoid force) with 3 controls or indicators



Cat.
4
PL_e



EtherNet/IP™

- ▶ Integrated controls and indicators
- ▶ Pre-assembled on mounting plates
- ▶ Integrated EtherNET/IP switch

Details

EtherNET/IP connection

Connection via M12 plugs according to IEC 61076-2-101.

EtherNET/IP switch

Point-to-point topology network structure due to integrated EtherNET/IP switch.

Flexible use as interlocking or guard locking

By means of the corresponding evaluation of the safe device data by the control system, use can be as either interlocking or guard locking (with or without monitoring).

Illuminated emergency stop

Emergency stop with illumination that can be controlled as required.

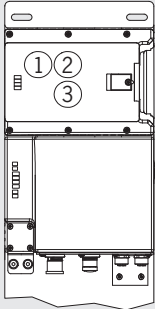
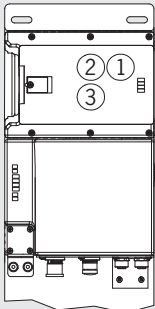
Lens set

The color of the pushbuttons can be selected using the lens set 120344 included.

Further information

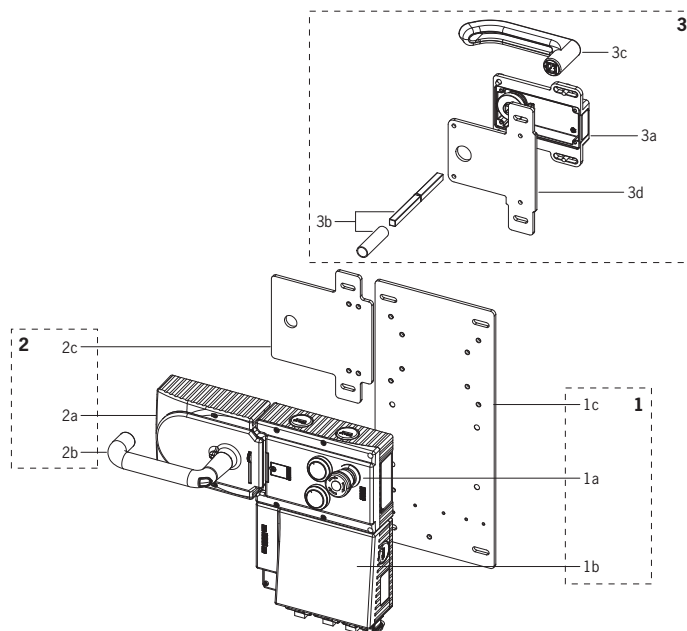
- ▶ Dimension drawings see p. 126
- ▶ Technical data see p. 125
- ▶ Accessories and spare parts see p. 121
- ▶ www.euchner.com

Ordering table

Modules in the set						Ordering data, set		
Evaluation module and bus module		Controls and indicators			Handle module Order no. separate module	Escape release Order no. separate module	Door hinge (factory setting)	Order no./item
Version/configuration scheme Order no. module combination		S1 H1	S2 H2	S3 H3				
EtherNet/IP EI	127676  incl. adhesive labels		 *)	 *)	118838	—	right	127677 MGB-L2HB-EIA-R-127677 (Modules pre-assembled on mounting plates)
	127678  incl. adhesive labels				118839		left	127679 MGB-L2HB-EIA-L-1227679 (Modules pre-assembled on mounting plates)

* The color can be selected using the lens set included.

System components and spare parts



Ordering table for system components, spare parts and accessories

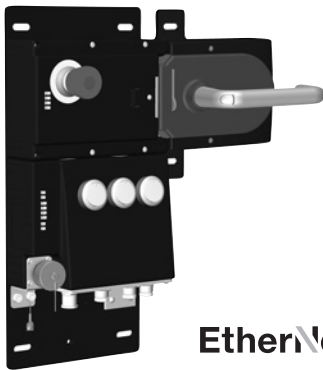
Notice: Only spare parts that are listed with an order number in the following ordering table can be ordered.

Position	Designation	Use/description	Order no./item
1	System unit MGB-L1B-... (guard locking by spring force)	For doors hinged on the left	127678 MGB-L2B-EIA-L-127678
		For doors hinged on the right	127676 MGB-L2B-EIA-R-127676
	comprising:		
	1 a - Evaluation module		-
	1 b - Bus module		-
	1 c - Mounting plate		
2	Handle module MGB-H-... comprising:	For doors hinged on the left	111839 MGB-H-AA1A6-L-111839
		For doors hinged on the right	111838 MGB-H-AA1A6-R-111838
	2 a - Handle module		-
	2 b - Door handle	Color silver	123926 MGB-A-DOORHANDLE-S2-123926
	2 c - Mounting plate	For handle module MGB-H-...	109491 MGB-A-MOUNTINGPLATE-H-109491
3	Escape release MGB-E-... comprising:		106051 MGB-E-A2-106051
			-
	3 a - Escape release		-
	3 b - Escape release shaft	Standard length 115 mm (square 8x8 mm + sleeve)	-
	- Long escape release shaft (instead of item 3b)	Length 250 mm (square 8x8 mm + sleeve 182 mm long)	106761 AY-ERS-250-106761
	3 c - Door handle	Color red	156945 AY-DHL-R1-156945
	3 d - Mounting plate	For escape release MGB-E-...	109492 MGB-A-MOUNTINGPLATE-E-109492

Locking sets MGB-L2...-EI... (guard locking by solenoid force) with 4 controls or indicators



Cat.
4
PL_e



EtherNet/IP™

- ▶ Integrated controls and indicators
- ▶ Pre-assembled on mounting plates
- ▶ Integrated EtherNET/IP switch

Details

EtherNET/IP connection

Connection via M12 plugs according to IEC 61076-2-101.

EtherNET/IP switch

Point-to-point topology network structure due to integrated EtherNET/IP switch.

Flexible use as interlocking or guard locking

By means of the corresponding evaluation of the safe device data by the control system, use can be as either interlocking or guard locking (with or without monitoring).

Connection for enabling switch

The devices have an RC12 plug connector for the direct connection of an enabling switch (e.g. ZSB077040, order no. 077040).

Illuminated emergency stop

Emergency stop with illumination that can be controlled as required.

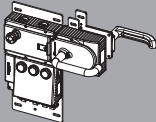
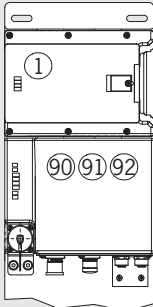
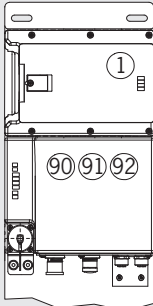
Lens set

The color of the pushbuttons can be selected using the lens set 120344 included.

Further information

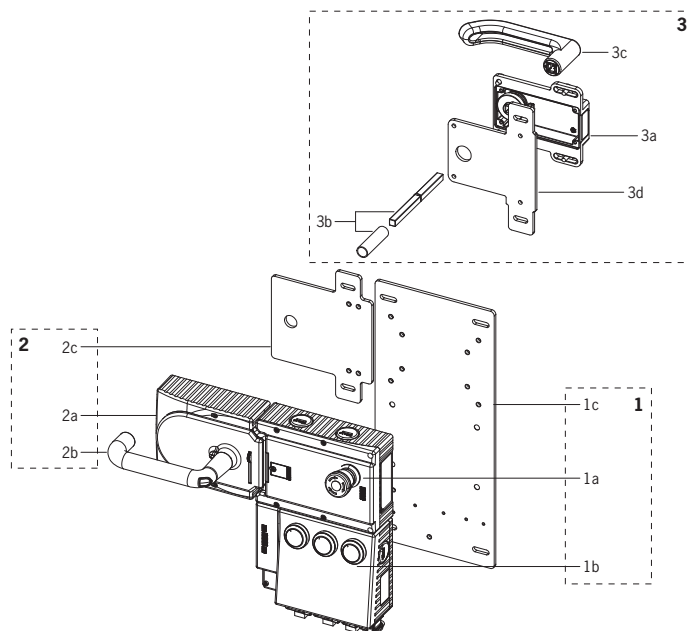
- ▶ Dimension drawings see p. 126
- ▶ Technical data see p. 125
- ▶ Accessories and spare parts see p. 123
- ▶ www.euchner.com

Ordering table

Modules in the set								Ordering data, set	
Evaluation module and bus module						 Handle module Order no. separate module	 Escape release Order no. separate module	Door hinge (factory setting)	 Order no./item
Version/configuration scheme Order no. module combination		Controls and indicators							
	 136508 Plug connector X14 for enabling switch	S1 H1	S90 H90	S91 H91	S92 H92	111838	—	right	157789 MGB-L2HB-EIA-R-157789 (Modules pre-assembled on mounting plates)
	 136522 Plug connector X14 for enabling switch		 *)	 *)	 *)				

* The color can be selected using the lens set included.

System components and spare parts



Ordering table for system components, spare parts and accessories

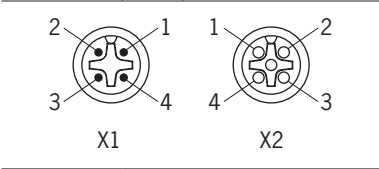
Notice: Only spare parts that are listed with an order number in the following ordering table can be ordered.

Position	Designation	Use/description	Order no./item
1	System unit MGB-L1B-... (guard locking by spring force)	For doors hinged on the left	136522 MGB-L2B-EIA-L-136522
		For doors hinged on the right	136508 MGB-L2B-EIA-R-136508
	comprising:		
	1 a - Evaluation module		-
	1 b - Bus module		-
	1 c - Mounting plate		
2	Handle module MGB-H-... comprising:	For doors hinged on the left	111839 MGB-H-AA1A6-L-111839
		For doors hinged on the right	111838 MGB-H-AA1A6-R-111838
	2 a - Handle module		-
	2 b - Door handle	Color silver	123926 MGB-A-DOORHANDLE-S2-123926
	2 c - Mounting plate	For handle module MGB-H-...	109491 MGB-A-MOUNTINGPLATE-H-109491
3	Escape release MGB-E-... comprising:		106051 MGB-E-A2-106051
			-
	3 a - Escape release		-
	3 b - Escape release shaft	Standard length 115 mm (square 8x8 mm + sleeve)	-
	- Long escape release shaft (instead of item 3b)	Length 250 mm (square 8x8 mm + sleeve 182 mm long)	106761 AY-ERS-250-106761
	3 c - Door handle	Color red	156945 AY-DHL-R1-156945
	3 d - Mounting plate	For escape release MGB-E-...	109492 MGB-A-MOUNTINGPLATE-E-109492

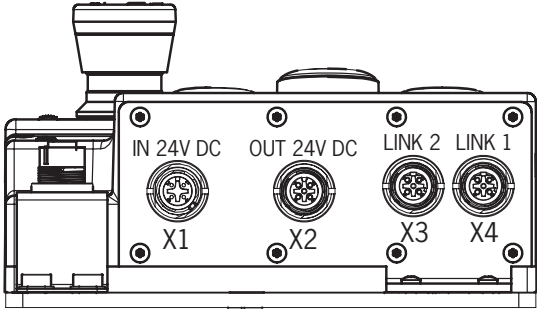
Assignment of the terminal plugs

Terminal assignment for M12 plug

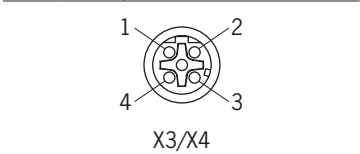
Pin		Description	
X1.1	X2.1	PWR 1	24 V DC MGB
X1.2	X2.2	PWR 2	(looped through)
X1.3	X2.3	PWR 1	0 V DC MGB
X1.4	X2.4	PWR 2	(looped through)



Power supply connector assignment
Plug connectors X1 and X2

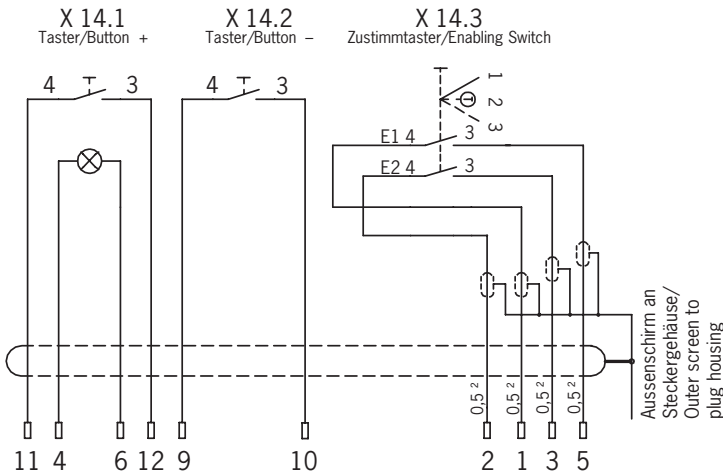


Pin		Description	
X3.1	X4.1	TxD+	
X3.2	X4.2	RxD+	
X3.3	X4.3	TxD-	
X3.4	X4.4	RxD-	
Shield		Cf. CIP specification Vol. 2 8-9.4.3	



EtherNET/IP connector assignment
Plug connectors X3 and X4

Terminal assignment, plug connector X14 for enabling switch (e.g. ZSB077040, order no. 077040)



Technical data

Parameter	Value
s _{ar} max. door position	65 mm
Housing material	Fiber glass reinforced plastic Die-cast zinc, nickel-plated, stainless steel, powder-coated sheet steel
Supported protocols	DLR acc. to CT17/CIP acc. to CT17
Dimensions	See dimension drawing
Weight of MGB-L.B (bus module, locking module and operating module with mounting plate)	4.05 kg
Weight of handle module with mounting plate	1.20 kg
Weight of escape release module with mounting plate	1.15 kg
Ambient temperature	-20 ... +55 °C
Degree of protection	IP54
Safety class	III
Degree of contamination	3
Installation position	Any
Locking force F _{zh} acc. to GSET-19	2000 N
Connection, power supply	2 x M12 (A-coded) or 2 x 7/8" possible
Connection, bus	2 x M12 (D-coded)
Connecting cable, bus	EtherNET/IP cable, at least cat. 5e
Operating voltage U _g	DC 24 V +10%/-15%
Current consumption, max.	500 mA
Maximum feed-in current in the connection block	4000 mA
Fuse protection for power supply, external	Min. 1 A slow-blow
Safety outputs	CIP Safety®
Rated insulation voltage U _i	75 V
Rated impulse withstand voltage U _{imp}	0.5 kV
Resilience to vibration and shock	Acc. to EN 60947-5-3
EMC protection requirements	Acc. to EN 61000-4 and DIN EN 61326-3-1
Storm Prevention: maximum number of multicast telegrams	1,500 packets /100 ms
Switching frequency, max.	1 Hz
Risk times, max. (turn-off times) ²⁾	
- Emergency stop	100 ms
- Enabling switch	100 ms
- Operating mode selector	100 ms
- Door position	250 ms
- Bolt position	250 ms
- Guard locking	250 ms
Reliability values acc. to EN ISO 13849-1	
Category	4
Performance Level	PL e
DC	99%
Mission time	20 years
MTTF _D /PFH _D ³⁾	
- Monitoring of guard locking	746 years/3.37 x 10 ⁻⁹
- Control of guard locking	475 years/4.91 x 10 ⁻⁹
- Emergency-stop evaluation	787 years/3.05 x 10 ⁻⁹
- Evaluation of operating mode selector switch	483 years/4.91 x 10 ⁻⁹
- Enabling switch evaluation	753 years/3.05 x 10 ⁻⁹
B ₁₀₀ ⁴⁾	
- Emergency stop	1.3 x 10 ⁵
- Enabling switch	Acc. to manufacturer's specifications

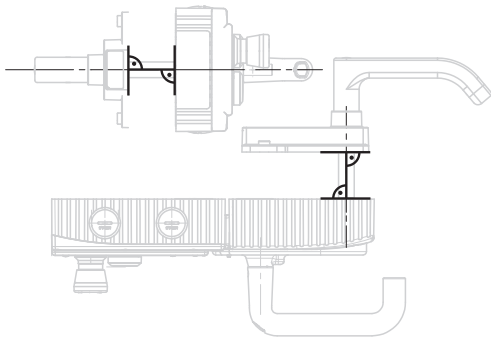
2) The risk time is the maximum time between the change in the input status and the clearing of the corresponding bit in the bus protocol.

3) Fixed failure rate without consideration of faults in wearing parts.

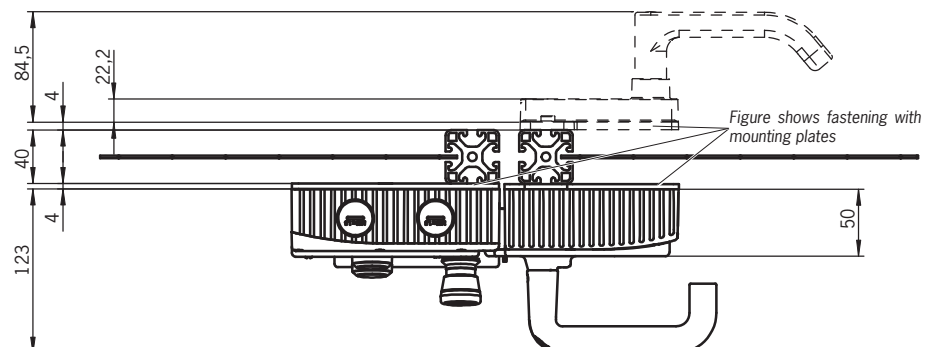
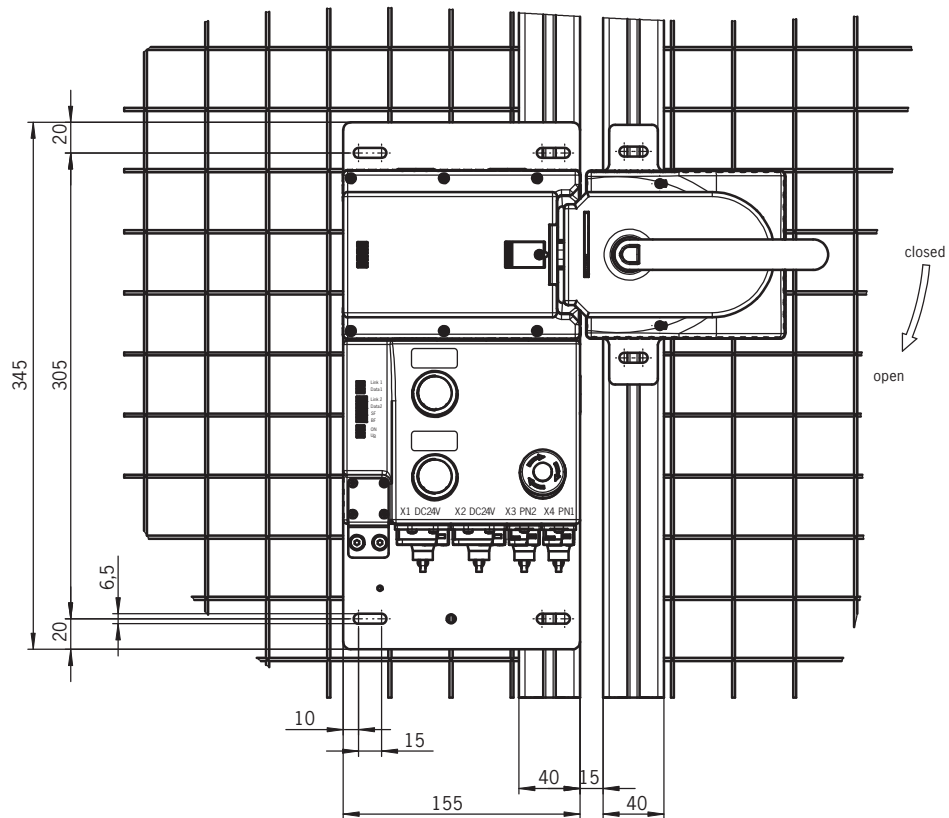
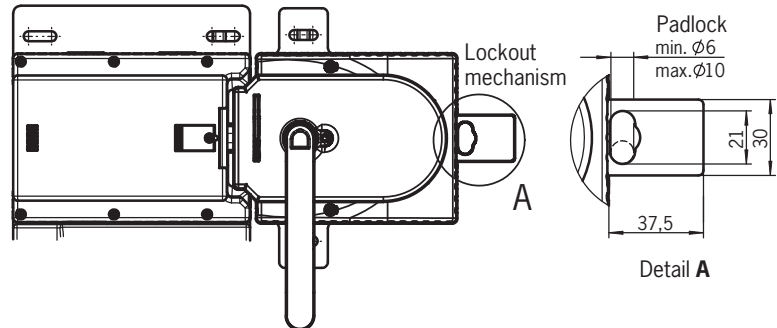
4) Information regarding wearing parts without consideration of fixed failure rates in electronic components.

Dimension drawings

Locking set



Dimensions with automatically extending lockout mechanism (optional)



(Figure shows version for doors hinged on the right, pre-assembled on mounting plates)

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How to find “your” MGB:

Considerations in relation to the output family

	MGB-AP for separate operation
	MGB-AR for separate operation or series connection with other AR devices
	MGB-PN for operation in PROFINET environment
	MGB-EI for operation in EtherNET/IP environment

Step 1

Interlocking or guard locking?

-	MGB-LO...: interlocking (Only monitoring of the door position)
	MGB-L1...: guard locking by spring force (closed-circuit current principle)
	MGB-L2...: guard locking by solenoid force (open-circuit current principle)

Step 2

Select number of controls/indicators required

Contact assembly/ counting direction	    
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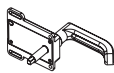
Step 3

Select type of controls and indicators

	Emergency stop according to ISO 13850
 / 	Illuminated emergency stop / emergency stop with monitoring contact
 / 	Machine stop / machine stop with monitoring contact
 / 	Pushbutton, illuminated / not illuminated (Different colors available)
	LED (Different colors available)
 / 	Selector switch form V, 2-stage, optionally illuminated (Different versions available. For details see ordering table and description of the details)
 / 	Key-operated selector switch form L or V, 2-stage (Different versions available. For details see ordering table and description of the details)

Step 4

Select complete MGB set with the required configuration

Evaluation module 	+	Handle module 	+	Escape release (if required) 	=	Complete MGB set 
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Have you not been able to find the configuration you require?

You will find further information at www.euchner.com. Alternatively our product consultants are available to assist you from the factory or on site.

For explanation of symbols, see also Page 6.

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