

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 60 years.

The medium-sized family-operated company based in Leinfelden, Germany, employs more than 600 people around the world.

16 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

| | | |
|---|------------|--------|
| General information | 4 | |
| System overview and selection aid | 7 | |
| Approvals and explanation of symbols | 8 | |
| System family MGB | 9 | |
| Interlocking sets MGB-L0-... | 10 | MGB-AP |
| Locking sets MGB-L1-... | 16 | |
| Locking sets MGB-L2-... | 38 | |
| Technical data and dimension drawings | 50 | |
| System family MGB with control module | 53 | |
| Interlocking sets MGB-LOC-AR... | 54 | MGB-AR |
| Locking sets MGB-L1C-AR... | 56 | |
| Locking sets MGB-L2C-AR... | 58 | |
| Technical data and dimension drawings | 60 | |
| Expansions and accessories for MGB-AP and MGB-AR | 63 | |
| System family MGB-PN | 85 | |
| Locking sets MGB-L1-PN... | 86 | MGB-PN |
| Locking sets MGB-L2-PN... | 98 | |
| Control modules MGB-...-PN... | 114 | |
| Technical data and dimension drawing | 120 | |
| Item index | 124 | |
| Item index by item designation | 124 | |
| Item index by order numbers | 126 | |

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 push buttons for start/stop, emergency stop, etc. – the MGB meets all your requirements for safety-related applications.

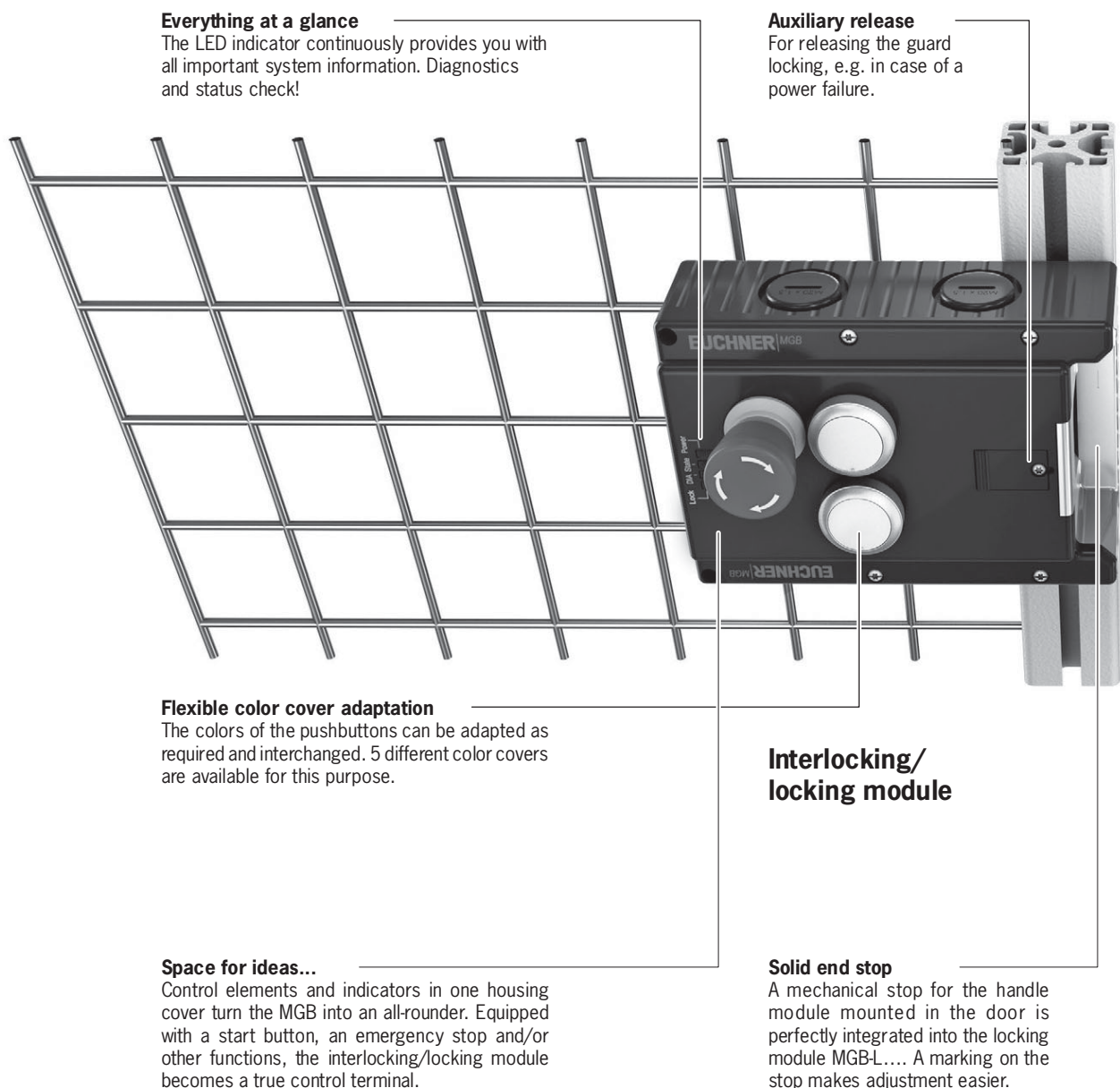
And if your needs grow, the MGB system grows with them. Due to the sophisticated modular design, the evaluation module can quickly become a small control panel.

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.



Everything at a glance

The LED indicator continuously provides you with all important system information. Diagnostics and status check!

Auxiliary release

For releasing the guard locking, e.g. in case of a power failure.

Flexible color cover adaptation

The colors of the pushbuttons can be adapted as required and interchanged. 5 different color covers are available for this purpose.

Interlocking/locking module

Space for ideas...

Control elements and indicators in one housing cover turn the MGB into an all-rounder. Equipped with a start button, an emergency stop and/or other functions, the interlocking/locking module becomes a true control terminal.

Solid end stop

A mechanical stop for the handle module mounted in the door is perfectly integrated into the locking module MGB-L.... A marking on the stop makes adjustment easier.

Safety remains the most important goal

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

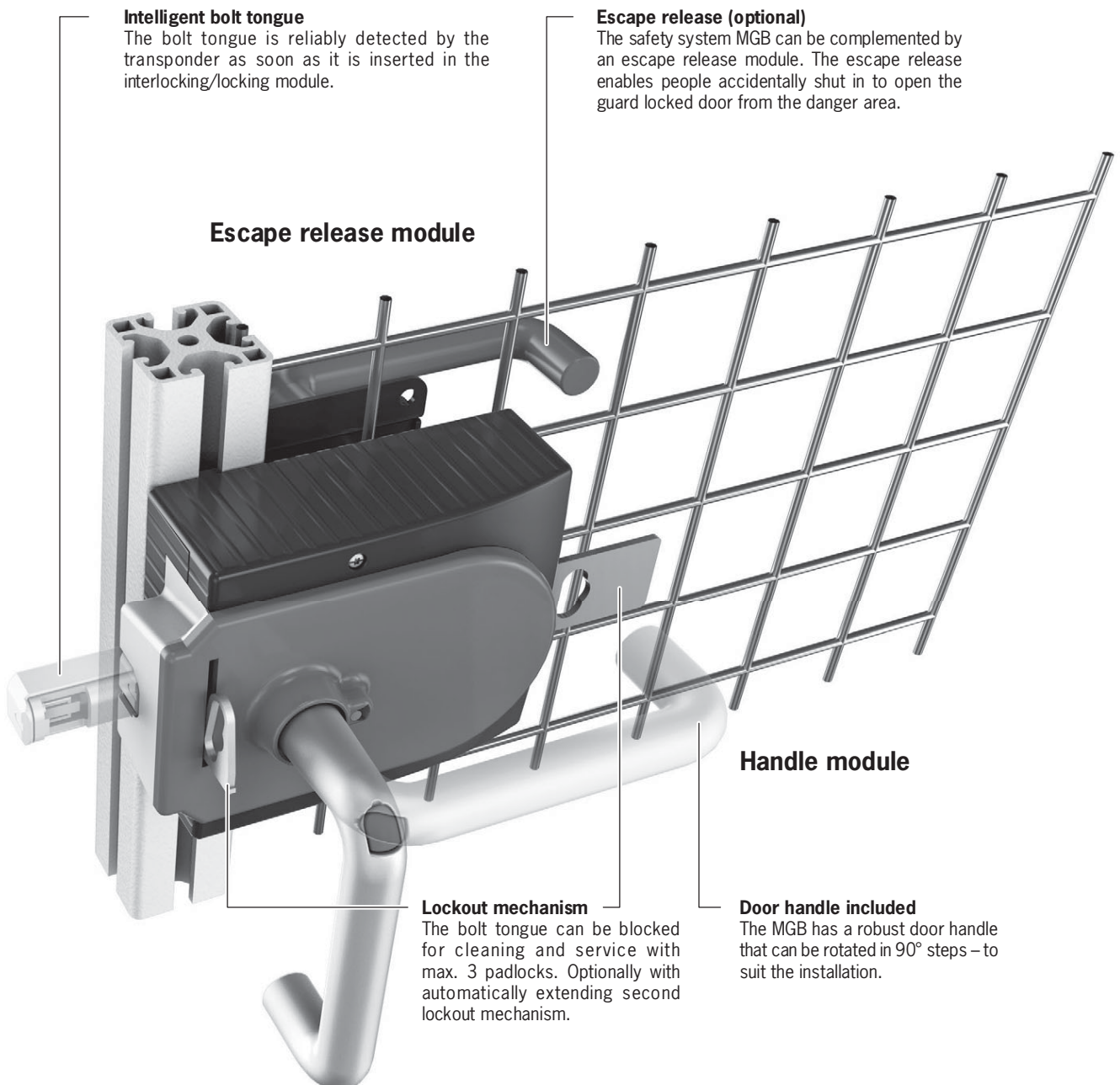
The adjustment of safety doors in fences changes over time. With ± 4 mm tolerance in the x direction as well as ± 5 mm in the z direction, the MGB is right there where the problem starts. Nevertheless, if a safety door should be even more out of adjustment, the large funnel in the evaluation module "catches" 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 reliably detected by the transponder as soon as it is inserted in 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 area.

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 actuator 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 version we now also make the wiring easier for you. You define which element is to be integrated and the related function. The MGB supplies the protocol frame with the necessary PROFINET input and output bytes required.

Comprehensive diagnostic information in the form of PROFINET messages makes troubleshooting quick and specific. Due to the typical ease with which parameters can be set in PROFINET, even the replacement of the system in case of service is a simple matter and can be undertaken 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 safety 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):

- ▶ Safety guard closed (but can be opened at any time)
- ▶ Bolt tongue inserted in the interlocking module

The interlocking module detects the position of the safety 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 actuating 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 safety 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):

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

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

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

When the bolt tongue is fully inserted in the locking module, the locking arm locks the bolt tongue in this position. Depending on the 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).
- ▶ **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).

Warning!

The safety 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 safety 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 of up to 300 Joule
- ▶ Optional escape release with door handle
- ▶ Optional push buttons 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
- ▶ Operation of guard locking via IMP as control input on PLC (only 3 mA)
- ▶ Monitoring outputs
 - ▶ OD = Door closed
 - ▶ OT = Bolt tongue inserted in the evaluation module (in case of guard locking devices ready for operation 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 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 can be reduced using this system family. |
| MGB-AR |  | Linking of several safety 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. |

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

System families compared

The tables provide you 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 |
| 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 |
| 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 * |
| Control module with additional functions | ○ Flexible configuration by means of kit MGB-C (only devices with cable entry) | ○ Flexible configuration by means of kit MGB-C (only devices with cable entry) | ○ Configuration from factory by EUCHNER |
| Mounting plates | ○ | ○ | ● |
| Connection for enabling switch | ○ 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 |

Safety category/guard locking

| | |
|---|--|
|  | Suitable up to category 4 or Performance Level e in accordance with EN ISO 13849-1 |
|  | Guard locking for personnel protection |
|  | Guard locking for process protection |

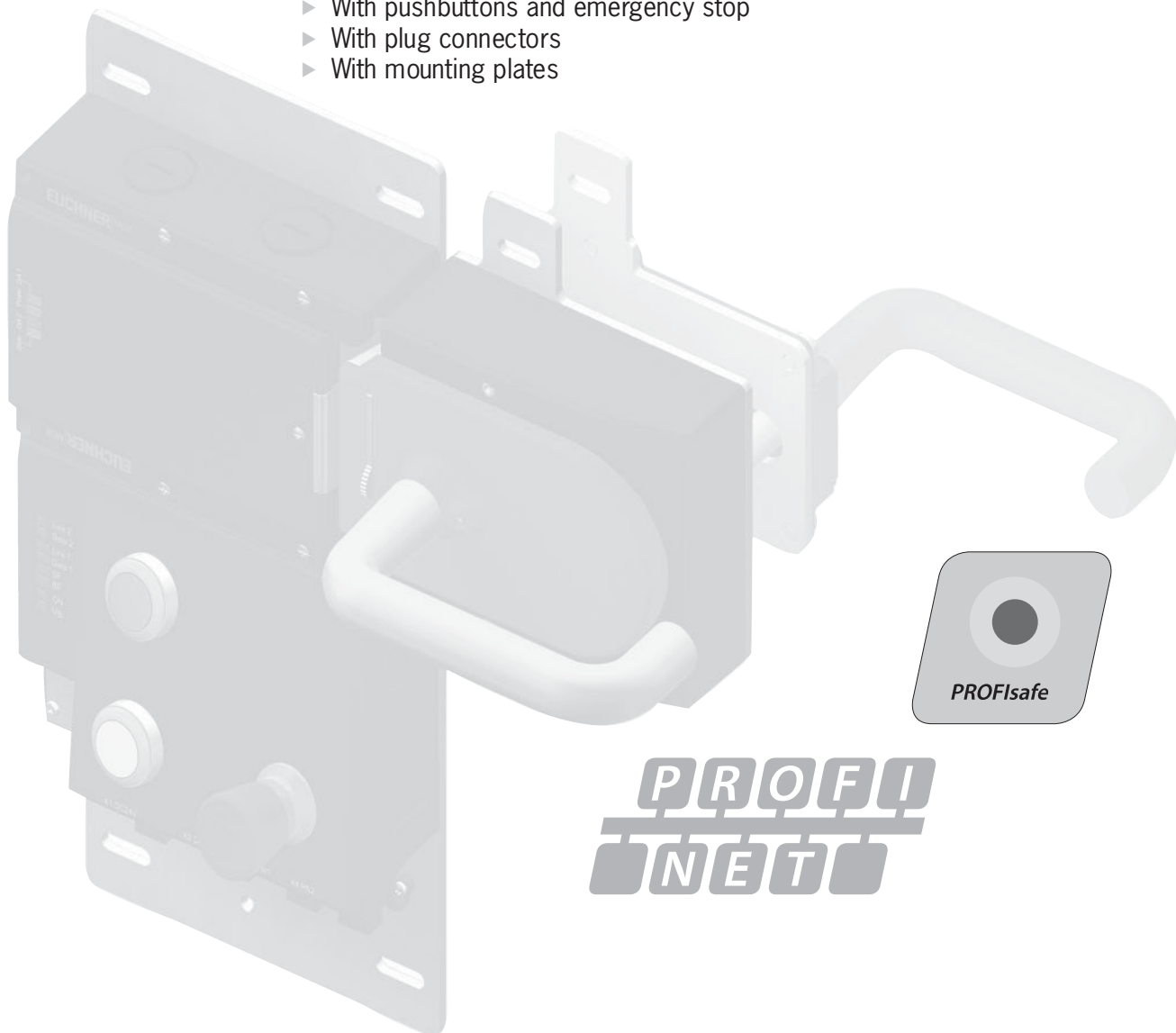
Controls and indicators

| | |
|---|--|
|  | 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 pushbutton |
|  | 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 family MGB-PN

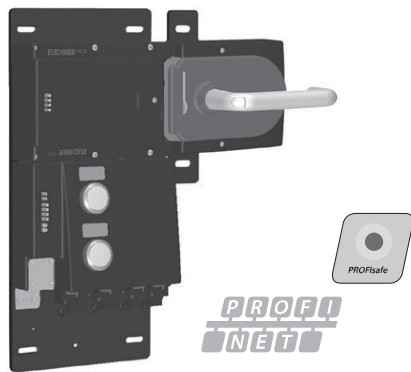
- ▶ Profinet and Profisafe
- ▶ With pushbuttons and emergency stop
- ▶ With plug connectors
- ▶ With mounting plates



MGB-PN

| | |
|--|-----------------|
| Locking sets MGB-L1-PN... (guard locking by spring force) | 86 - 96 |
| with 2 controls and indicators | 86 |
| with 3 controls and indicators | 90 |
| with 4 controls and indicators | 94 |
| Locking sets MGB-L2-PN... (guard locking by solenoid force) | 98 - 112 |
| without controls and indicators | 98 |
| with 3 controls and indicators | 102 |
| with 6 controls and indicators | 106 |
| Control modules MGB-...-PN | 114 |
| Assignment of the terminal plugs | 118 |
| Technical data | 120 |
| Dimension drawing | 121 |

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



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 usage as interlocking or guard locking

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

Lens set

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

Further information

- ▶ Dimension drawings see p. 121
- ▶ Technical data see p. 120
- ▶ Accessories and spare parts see p. 88
- ▶ www.euchner.de

- ▶ 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 | | Data ranges | Handle module Order no. separate module | Escape release Order no. separate module | Door hinge (factory setting) | Order no./item |
| | S90 H90 | S95 H95 | | | | | |
| 121831 Incl. adhesive labels | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | A | 106049 | - | Right | 121832 MGB-L1HB-PNAR-121832 (Modules pre-assembled on mounting plates) |
| 121833 Incl. adhesive labels | <input checked="" type="checkbox"/> *) | <input checked="" type="checkbox"/> *) | | | | | |

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



Data ranges

You will require the corresponding GSD file in GSDML format in order to integrate the MGB system:

GSDML-Vx.x-EUCHNER-MGB_110026-YYYYMMDD.xml

You can find the GSD file in the download area at www.euchner.de.

Prior to setup, the GSD file must be imported into the configuration software of the control system (see manual for your control system).

PROFINET data bytes

(unsafe input/output area)

A

Assignment in input area of the bus master

| | | | | | | | | |
|---------------|-----------------------------------|----|-------|---|---|-----|-----|-------|
| Slot 1/byte 0 | - | - | S95.1 | - | - | - | - | S90.1 |
| Slot 1/byte 1 | - | - | - | - | - | - | - | - |
| Slot 2/byte 0 | ÜK | SK | - | - | - | R | R | T |
| Slot 3/byte 0 | I24 | - | - | - | - | I19 | I18 | I17 |
| Slot 1/byte 0 | Push button S90 - S95 1st contact | | | | | | | |
| Slot 1/byte 1 | Push button S90 - S95 2nd contact | | | | | | | |
| Slot 2/byte 0 | Locking module | | | | | | | |
| Slot 3/byte 0 | Diagnostic module | | | | | | | |

Assignment in output area of the bus master

| | | | | | | | | |
|---------------|------------------------|---|-----|---|---|---|-----|------|
| Slot 1/byte 0 | - | - | H95 | - | - | - | - | H90 |
| Slot 2/byte 0 | - | - | - | - | - | - | - | Sol. |
| Slot 3/byte 0 | - | - | - | - | - | - | O18 | O17 |
| Slot 1/byte 0 | LEDs H90 - H95 | | | | | | | |
| Slot 2/byte 0 | Guard locking solenoid | | | | | | | |
| Slot 3/byte 0 | Diagnostic module | | | | | | | |

PROFIsafe data bytes

(safe input/output area)

A

Assignment of PROFIsafe in input area of the bus master

| | | | | | | | | |
|----------|-----------------------------------|---|---|-----|-----|-----|------|-----|
| Byte n+0 | - | - | - | SI5 | SI4 | SI3 | - | - |
| Byte n+1 | - | - | - | - | - | - | SI10 | SI9 |
| Byte n+2 | PROFIsafe internal (control byte) | | | | | | | |
| Byte n+3 | PROFIsafe internal (ser. no.) | | | | | | | |
| Byte n+4 | PROFIsafe internal (CRC2) | | | | | | | |
| Byte n+5 | PROFIsafe internal (CRC2) | | | | | | | |
| SI3 | Door position (T) | | | | | | | |
| SI4 | Bolt position (R) | | | | | | | |
| SI5 | Guard locking (Z) | | | | | | | |
| SI9 | SK (T AND R) | | | | | | | |
| SI10 | ÜK (T AND R AND Z) | | | | | | | |

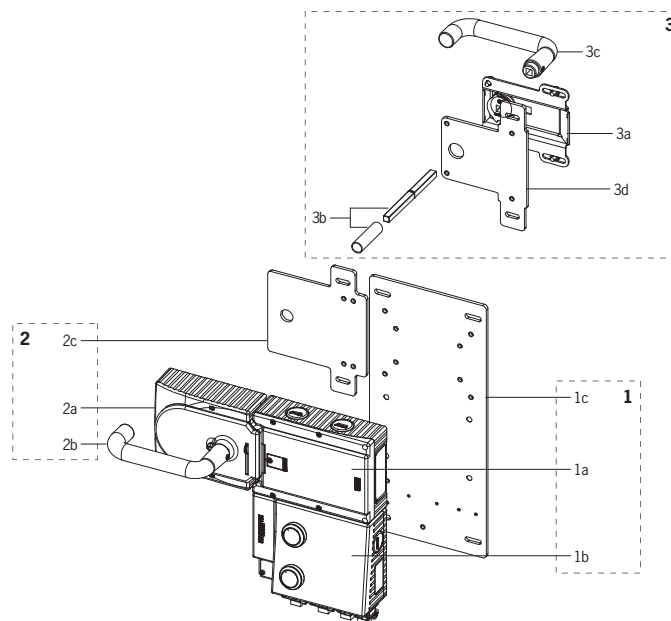
Assignment of PROFIsafe in output area of the bus master

| | | | | | | | | |
|----------|-----------------------------------|---|---|---|---|---|---|-----|
| Byte n+0 | - | - | - | - | - | - | - | S01 |
| Byte n+1 | - | - | - | - | - | - | - | - |
| Byte n+2 | PROFIsafe internal (control byte) | | | | | | | |
| Byte n+3 | PROFIsafe internal (ser. no.) | | | | | | | |
| Byte n+4 | PROFIsafe internal (CRC2) | | | | | | | |
| Byte n+5 | PROFIsafe internal (CRC2) | | | | | | | |
| S01 | Guard locking solenoid | | | | | | | |

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



System components and spare parts



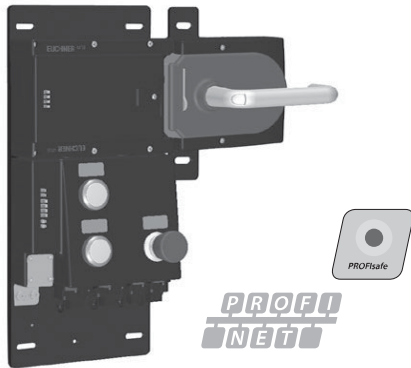
Ordering table for system components, spare parts and accessories

Notice: It is only possible to order spare parts that are given in the following ordering table with an order number.

| 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: | | | |
| | 1a | - Evaluation module | | - |
| 1b | - Bus module | | - | |
| 1c | - 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 | |
| | 2a | - Handle module | | - |
| | 2b | - Door handle | Color silver | 123926 MGB-A-DOORHANDLE-S2-1 23926 |
| 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 | |
| | | 3a | - Escape release | - |
| | 3b | - Escape release shaft | Standard length 118 mm (square 8x8 mm + sleeve) | - |
| | | - Long escape release shaft (instead of item 3b) | Length 250 mm (square 8x8 mm + sleeve 182 mm long) | 106761 MGB-A-ESCAPERELEASESHAFT 250 |
| | 3c | - Door handle | Color red | 110276 MGB-A-DOORHANDLE-R-110276 |
| | 3d | - 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



- ▶ 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 usage as interlocking or guard locking

By means of the corresponding evaluation of the safe device data by the control system, usage can be either as 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 pushbutton can be selected using the lens set 120344 included.

Further information

- ▶ Dimension drawings see p. 121
- ▶ Technical data see p. 120
- ▶ Accessories and spare parts see p. 93
- ▶ www.euchner.de

Ordering table

| Modules in the set | | | | | Ordering data, set | | |
|--|-------------------------|-------------|--|---|---------------------------------|---|----------------------------------|
| Version/configuration scheme Order no. module combination | Controls and indicators | Data ranges | Handle module Order no. separate module | Escape release Order no. separate module | Door hinge (factory setting) | Order no./item | |
| | | | | | | | Evaluation module and bus module |
| 121851 incl. adhesive labels, push-pull plugs | S93 | S90 | S95 | 106049 | Right | 121852 MGB-L1HB-PNAR-121852 (Modules pre-assembled on mounting plates) | |
| | H93 | H90 | H95 | | | | |
| 121855 incl. adhesive labels, push-pull plugs | | *) | *) | A | 106221 | 121856 MGB-L1HB-PNAL-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 | | Controls and indicators | | Data ranges | 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 | | | | | | | | |
| <p>121857</p> <p>Pre-assembled on mounting plate, incl. adhesive labels, 7/8" plugs and M12 plugs</p> | S93 | S90 | S95 | A | 106049 Pre-assembled on mounting plate | - | Right | 121858 MGB-L1HB-PNA-R-121858 |
| | H93 | H90 | H95 | | | | | |
| <p>121861</p> <p>Pre-assembled on mounting plate, incl. adhesive labels, 7/8" plugs and M12 plugs</p> | | <p>*)</p> | <p>*)</p> | | 106221 Pre-assembled on mounting plate | | Left | 121862 MGB-L1HB-PNA-L-121862 |

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

MGB-PN

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



Data ranges

You will require the corresponding GSD file in GSDML format in order to integrate the MGB system:
GSDML-Vx.x-EUCHNER-MGB_110026-YYYYMMDD.xml

You can find the GSD file in the download area at www.euchner.de.

Prior to setup, the GSD file must be imported into the configuration software of the control system (see manual for your control system).

PROFINET data bytes (unsafe input/output area)



Assignment in input area of the bus master

| | | | | | | | | |
|---------------|-----------------------------------|----|-------|---|---|-----|-----|-------|
| Slot 1/byte 0 | - | - | S95.1 | - | - | - | - | S90.1 |
| Slot 1/byte 1 | - | - | - | - | - | - | - | - |
| Slot 2/byte 0 | - | - | - | - | - | - | - | S93 |
| Slot 3/byte 0 | ÜK | SK | - | - | - | R | R | T |
| Slot 4/byte 0 | I24 | - | - | - | - | I19 | I18 | I17 |
| Slot 1/byte 0 | Push button S90 - S95 1st contact | | | | | | | |
| Slot 1/byte 1 | Push button S90 - S95 2nd contact | | | | | | | |
| Slot 2/byte 0 | Emergency stop monitoring contact | | | | | | | |
| Slot 3/byte 0 | Locking module | | | | | | | |
| Slot 4/byte 0 | Diagnostic module | | | | | | | |

Assignment in output area of the bus master

| | | | | | | | | |
|---------------|------------------------|---|-----|---|---|---|-----|------|
| Slot 1/byte 0 | - | - | H95 | - | - | - | - | H90 |
| Slot 2/byte 0 | - | - | - | - | - | - | - | H93 |
| Slot 3/byte 0 | - | - | - | - | - | - | - | Sol. |
| Slot 4/byte 0 | - | - | - | - | - | - | 018 | 017 |
| Slot 1/byte 0 | LEDs H90 - H95 | | | | | | | |
| Slot 2/byte 0 | Emergency stop LED | | | | | | | |
| Slot 3/byte 0 | Guard locking solenoid | | | | | | | |
| Slot 4/byte 0 | Diagnostic module | | | | | | | |

PROFIsafe data bytes (safe input/output area)



Assignment of PROFIsafe in input area of the bus master

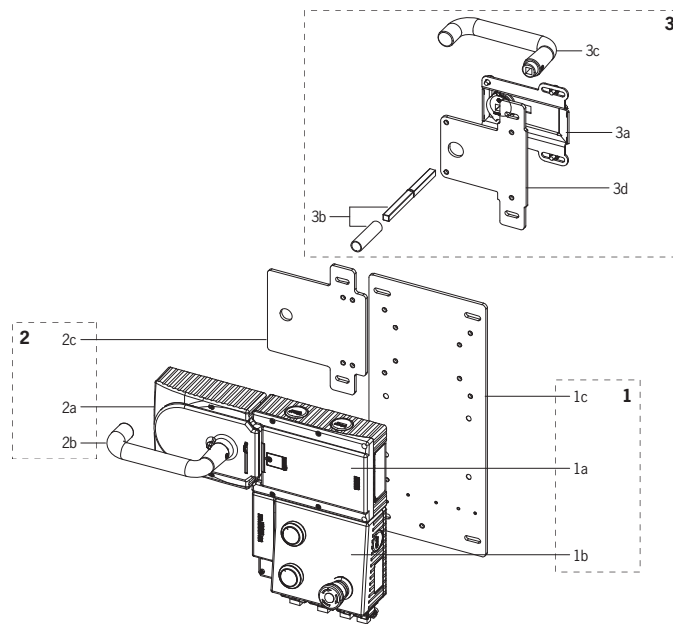
| | | | | | | | | |
|----------|-----------------------------------|---|---|-----|-----|-----|------|-----|
| Byte n+0 | - | - | - | SI5 | SI4 | SI3 | - | SI1 |
| Byte n+1 | - | - | - | - | - | - | SI10 | SI9 |
| Byte n+2 | PROFIsafe internal (control byte) | | | | | | | |
| Byte n+3 | PROFIsafe internal (ser. no.) | | | | | | | |
| Byte n+4 | PROFIsafe internal (CRC2) | | | | | | | |
| Byte n+5 | PROFIsafe internal (CRC2) | | | | | | | |
| SI1 | Emergency stop S93 | | | | | | | |
| SI3 | Door position (T) | | | | | | | |
| SI4 | Bolt position (R) | | | | | | | |
| SI5 | Guard locking (Z) | | | | | | | |
| SI9 | SK (T AND R) | | | | | | | |
| SI10 | ÜK (T AND R AND Z) | | | | | | | |

Assignment of PROFIsafe in output area of the bus master

| | | | | | | | | |
|----------|-----------------------------------|---|---|---|---|---|---|-----|
| Byte n+0 | - | - | - | - | - | - | - | SO1 |
| Byte n+1 | - | - | - | - | - | - | - | - |
| Byte n+2 | PROFIsafe internal (control byte) | | | | | | | |
| Byte n+3 | PROFIsafe internal (ser. no.) | | | | | | | |
| Byte n+4 | PROFIsafe internal (CRC2) | | | | | | | |
| Byte n+5 | PROFIsafe internal (CRC2) | | | | | | | |
| SO1 | Guard locking solenoid | | | | | | | |



System components and spare parts



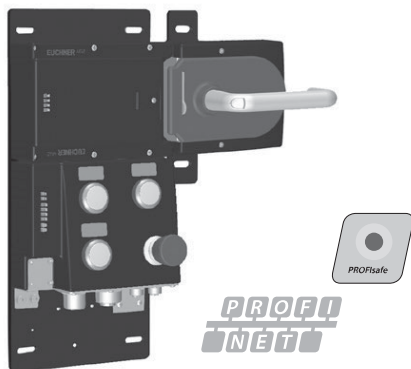
Ordering table for system components, spare parts and accessories

Notice: It is only possible to order spare parts that are given in the following ordering table with an order number.

| 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 | |
| | comprising: | | | |
| | 1a | - Evaluation module | - | |
| | 1b | - Bus module | - | |
| | 1c | - 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 | |
| | 2a | - 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 | |
| | | 3a | - Escape release | - |
| | 3b | - Escape release shaft | Standard length 118 mm (square 8x8 mm + sleeve) | - |
| | | - Long escape release shaft (instead of item 3b) | Length 250 mm (square 8x8 mm + sleeve 182 mm long) | 106761 MGB-A-ESCAPERELEASESHAFT 250 |
| | 3c | - Door handle | Color red | 110276 MGB-A-DOORHANDLE-R-110276 |
| 3d | - Mounting plate | For escape release MGB-E-... | 109492 MGB-A-MOUNTINGPLATE-E-109492 | |

MGB-PN

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 usage as interlocking or guard locking

By means of the corresponding evaluation of the safe device data by the control system, usage can be either as 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 pushbutton 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. 121
- ▶ Technical data see p. 120
- ▶ Accessories and spare parts see p. 93
- ▶ www.euchner.de

Ordering table

| Modules in the set | | | | | | Ordering data, set | | | |
|--|-------------------------|------------|------------|------------|-------------|--|---|---------------------------------|--|
| Version/configuration scheme Order no. module combination | Controls and indicators | | | | Data ranges | Handle module Order no. separate module | Escape release Order no. separate module | Door hinge (factory setting) | Order no./item |
| | S93 H93 | S90 H90 | S92 H92 | S95 H95 | | | | | |
| 121865 Incl. adhesive labels | | | | | A | 111838 | - | Right | 121866 MGB-L1HB-PNC-R-121866 (Modules pre-assembled on mounting plates) |
| | | *) | *) | *) | | | | | |
| 121867 Incl. adhesive labels | | | | | | 111839 | | Left | 121868 MGB-L1HB-PNC-L-121868 (Modules pre-assembled on mounting plates) |

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



Data ranges

You will require the corresponding GSD file in GSDML format in order to integrate the MGB system:

GSDML-Vx.x-EUCHNER-MGB_110026-YYYYMMDD.xml

You can find the GSD file in the download area at www.euchner.de.

Prior to setup, the GSD file must be imported into the configuration software of the control system (see manual for your control system).

PROFINET data bytes

(unsafe input/output area)

A

Assignment in input area of the bus master

| | | | | | | | | |
|---------------|-----------------------------------|----|-------|---|---|-------|-----|-------|
| Slot 1/byte 0 | - | - | S95.1 | - | - | S92.1 | - | S90.1 |
| Slot 1/byte 1 | - | - | - | - | - | - | - | - |
| Slot 2/byte 0 | - | - | - | - | - | - | - | S93 |
| Slot 3/byte 0 | ÜK | SK | - | - | - | R | R | T |
| Slot 4/byte 0 | I24 | - | - | - | - | I19 | I18 | I17 |
| Slot 1/byte 0 | Push button S90 - S95 1st contact | | | | | | | |
| Slot 1/byte 1 | Push button S90 - S95 2nd contact | | | | | | | |
| Slot 2/byte 0 | Emergency stop monitoring contact | | | | | | | |
| Slot 3/byte 0 | Locking module | | | | | | | |
| Slot 4/byte 0 | Diagnostic module | | | | | | | |

Assignment in output area of the bus master

| | | | | | | | | |
|---------------|------------------------|---|-----|---|---|-----|-----|------|
| Slot 1/byte 0 | - | - | H95 | - | - | H92 | - | H90 |
| Slot 2/byte 0 | - | - | - | - | - | - | - | H93 |
| Slot 3/byte 0 | - | - | - | - | - | - | - | Sol. |
| Slot 4/byte 0 | - | - | - | - | - | - | O18 | O17 |
| Slot 1/byte 0 | LEDs H90 - H95 | | | | | | | |
| Slot 2/byte 0 | Emergency stop LED | | | | | | | |
| Slot 3/byte 0 | Guard locking solenoid | | | | | | | |
| Slot 4/byte 0 | Diagnostic module | | | | | | | |

PROFIsafe data bytes

(safe input/output area)

A

Assignment of PROFIsafe in input area of the bus master

| | | | | | | | | |
|----------|-----------------------------------|---|---|-----|-----|-----|------|-----|
| Byte n+0 | - | - | - | SI5 | SI4 | SI3 | - | SI1 |
| Byte n+1 | - | - | - | - | - | - | SI10 | SI9 |
| Byte n+2 | PROFIsafe internal (control byte) | | | | | | | |
| Byte n+3 | PROFIsafe internal (ser. no.) | | | | | | | |
| Byte n+4 | PROFIsafe internal (CRC2) | | | | | | | |
| Byte n+5 | PROFIsafe internal (CRC2) | | | | | | | |
| SI1 | Emergency stop S93 | | | | | | | |
| SI3 | Door position (T) | | | | | | | |
| SI4 | Bolt position (R) | | | | | | | |
| SI5 | Guard locking (Z) | | | | | | | |
| SI9 | SK (T AND R) | | | | | | | |
| SI10 | ÜK (T AND R AND Z) | | | | | | | |

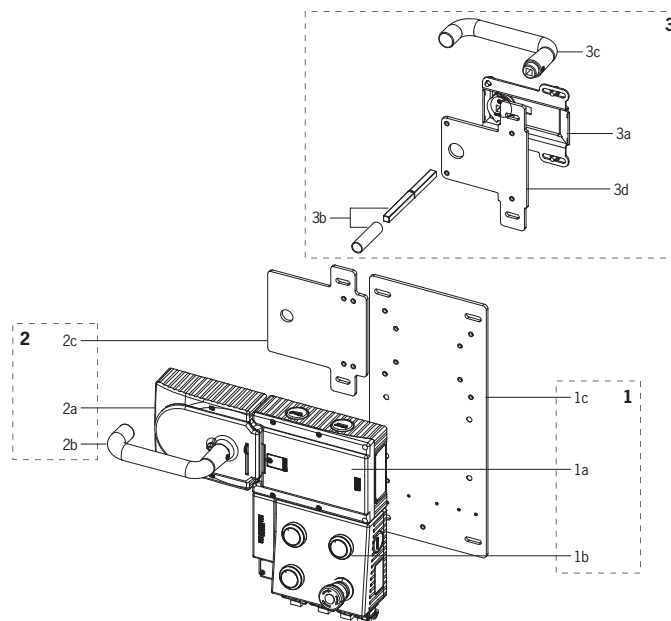
Assignment of PROFIsafe in output area of the bus master

| | | | | | | | | |
|----------|-----------------------------------|---|---|---|---|---|---|-----|
| Byte n+0 | - | - | - | - | - | - | - | S01 |
| Byte n+1 | - | - | - | - | - | - | - | - |
| Byte n+2 | PROFIsafe internal (control byte) | | | | | | | |
| Byte n+3 | PROFIsafe internal (ser. no.) | | | | | | | |
| Byte n+4 | PROFIsafe internal (CRC2) | | | | | | | |
| Byte n+5 | PROFIsafe internal (CRC2) | | | | | | | |
| S01 | Guard locking solenoid | | | | | | | |

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



System components and spare parts



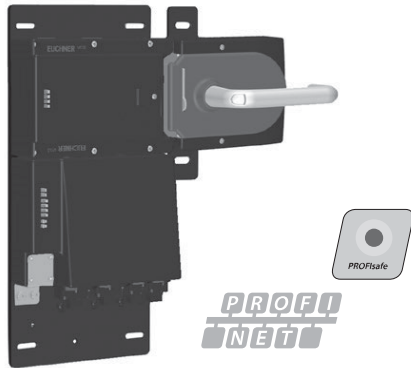
Ordering table for system components, spare parts and accessories

Notice: It is only possible to order spare parts that are given in the following ordering table with an order number.

| 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: | | | |
| | 1a | - Evaluation module | | - |
| 1b | - Bus module | | - | |
| 1c | - Mounting plate | | | |
| 2 | Handle module MGB-H-... comprising: | For doors hinged on the left | 111839 MGB-HAA1A6-L-111839 | |
| | | For doors hinged on the right | 111838 MGB-HAA1A6-R-111838 | |
| | 2a | - 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 | |
| | | 3a | - Escape release | - |
| | 3b | - Escape release shaft | Standard length 118 mm (square 8x8 mm + sleeve) | - |
| | | - Long escape release shaft (instead of item 3b) | Length 250 mm (square 8x8 mm + sleeve 182 mm long) | 106761 MGB-A-ESCAPERELEASESHAFT 250 |
| | 3c | - Door handle | Color red | 110276 MGB-A-DOORHANDLE-R-110276 |
| | 3d | - Mounting plate | For escape release MGB-E-... | 109492 MGB-A-MOUNTINGPLATE-E-109492 |



Locking sets MGB-L2...-PN... (guard locking by solenoid force) without controls or indicators



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 usage as interlocking or guard locking

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

Further information

- ▶ Dimension drawings see p. 121
- ▶ Technical data see p. 120
- ▶ Accessories and spare parts see p. 100
- ▶ www.euchner.de

- ▶ 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 | Data ranges | Handle module Order no. separate module | Escape release Order no. separate module | Door hinge (factory setting) |
| <p>114044</p> | | | 106049 | | Right |
| <p>114045</p> | | | 106221 | | Left |



Data ranges

You will require the corresponding GSD file in GSDML format in order to integrate the MGB system:

GSDML-Vx.x-EUCHNER-MGB_110026-YYYYMMDD.xml

You can find the GSD file in the download area at www.euchner.de.

Prior to setup, the GSD file must be imported into the configuration software of the control system (see manual for your control system).

PROFINET data bytes

(unsafe input/output area)

A

Assignment in input area of the bus master

| | | | | | | | | |
|---------------|-------------------|----|---|---|---|---|-----|-----|
| Slot 1/byte 1 | ÜK | SK | - | - | - | R | R | T |
| Slot 2/byte 1 | I24 | - | - | - | - | - | I18 | I17 |
| Slot 1/byte 1 | Locking module | | | | | | | |
| Slot 2/byte 1 | Diagnostic module | | | | | | | |

Assignment in output area of the bus master

| | | | | | | | | |
|---------------|------------------------|---|---|---|---|---|-----|------|
| Slot 1/byte 1 | - | - | - | - | - | - | - | Sol. |
| Slot 2/byte 1 | - | - | - | - | - | - | O18 | O17 |
| Slot 1/byte 1 | Guard locking solenoid | | | | | | | |
| Slot 2/byte 1 | Diagnostic module | | | | | | | |

PROFIsafe data bytes

(safe input/output area)

A

Assignment of PROFIsafe in input area of the bus master

| | | | | | | | | |
|----------|-----------------------------------|---|---|-----|-----|-----|------|-----|
| Byte n+0 | - | - | - | SI5 | SI4 | SI3 | - | - |
| Byte n+1 | - | - | - | - | - | - | SI10 | SI9 |
| Byte n+2 | PROFIsafe internal (control byte) | | | | | | | |
| Byte n+3 | PROFIsafe internal (ser. no.) | | | | | | | |
| Byte n+4 | PROFIsafe internal (CRC2) | | | | | | | |
| Byte n+5 | PROFIsafe internal (CRC2) | | | | | | | |
| SI3 | Door position (T) | | | | | | | |
| SI4 | Bolt position (R) | | | | | | | |
| SI5 | Guard locking (Z) | | | | | | | |
| SI9 | SK (T AND R) | | | | | | | |
| SI10 | ÜK (T AND R AND Z) | | | | | | | |

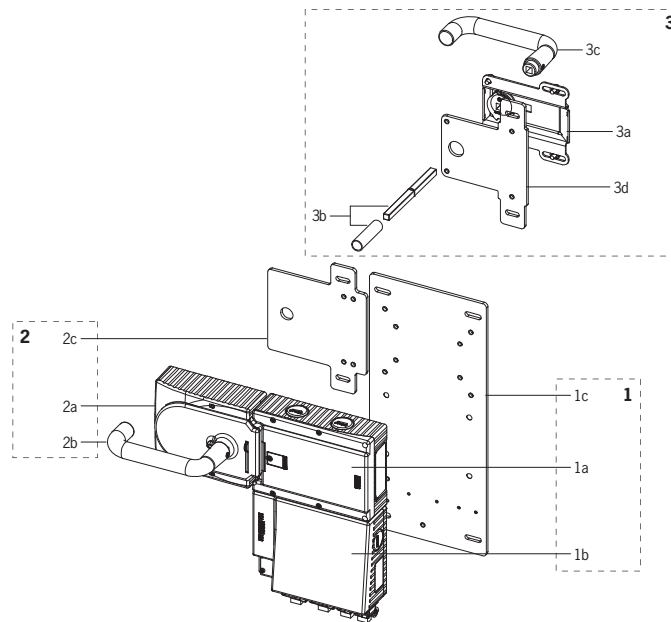
Assignment of PROFIsafe in output area of the bus master

| | | | | | | | | |
|----------|-----------------------------------|---|---|---|---|---|---|-----|
| Byte n+0 | - | - | - | - | - | - | - | S01 |
| Byte n+1 | - | - | - | - | - | - | - | - |
| Byte n+2 | PROFIsafe internal (control byte) | | | | | | | |
| Byte n+3 | PROFIsafe internal (ser. no.) | | | | | | | |
| Byte n+4 | PROFIsafe internal (CRC2) | | | | | | | |
| Byte n+5 | PROFIsafe internal (CRC2) | | | | | | | |
| S01 | Guard locking solenoid | | | | | | | |

Locking sets MGB-L2...-PN... (guard locking by solenoid force) without controls or indicators



System components and spare parts



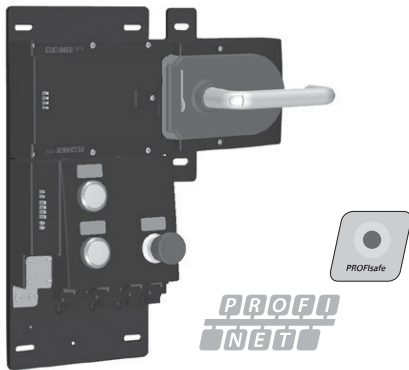
Ordering table for system components, spare parts and accessories

Notice: It is only possible to order spare parts that are given in the following ordering table with an order number.

| Position | Designation | Use/description | Order No./item | |
|----------|---|---|---|---|
| 1 | System unit MGB-L2B-... (guard locking by solenoid force) | For doors hinged on the left | 114044 MGB-L2B-PNA-L-114044 | |
| | | For doors hinged on the right | 114045 MGB-L2B-PNA-R-114045 | |
| | comprising: | | | |
| | 1a | - Evaluation module | - | |
| | 1b | - Bus module | - | |
| 1c | - 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 | |
| | 2a | - 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 | |
| | | 3a | - Escape release | - |
| | 3b | - Escape release shaft | Standard length 118 mm (square + sleeve) | - |
| | | - Long escape release shaft (instead of item 3b) | Length 250 mm (square 8x8 mm + sleeve 182 mm long) | 106761 MGB-A-ESCAPERELEASESHAFT 250 |
| | 3c | - Door handle | Color red | 110276 MGB-A-DOORHANDLE-R-110276 |
| | 3d | - 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



- ▶ 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 usage as interlocking or guard locking

By means of the corresponding evaluation of the safe device data by the control system, usage can be either as 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 pushbutton can be selected using the lens set 120344 included.

Further information

- ▶ Dimension drawings see p. 121
- ▶ Technical data see p. 120
- ▶ Accessories and spare parts see p. 105
- ▶ www.euchner.de

Ordering table

| Modules in the set | | | | | Ordering data, set | | | |
|--|-------------------------|------------|------------|-------------|--|---|---------------------------------|---|
| Version/configuration scheme Order no. module combination | Controls and indicators | | | Data ranges | Handle module Order no. separate module | Escape release Order no. separate module | Door hinge (factory setting) | Order no./item |
| | S93 H93 | S90 H90 | S95 H95 | | | | | |
| 121848 incl. adhesive labels, push-pull plugs | | | | A | 106049 | - | Right | 121849 MGB-L2HB-PNAR-121849 (Modules pre-assembled on mounting plates) |
| | | | | | | | Left | |
| 121853 incl. adhesive labels, push-pull plugs | | | | | | | | |

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

(Continued on next page)


Ordering table (continued)

| Modules in the set | | | | Ordering data, set | | | | |
|---|---|-------------------------|-----------|--------------------|--|---|---------------------------------|--|
| Version/configuration scheme Order no. module combination | | Controls and indicators | | Data ranges | Handle module Order no. separate module | Escape release Order no. separate module | Door hinge (factory setting) | Order no./item |
| <p>121859</p> <p>Pre-assembled on mounting plate, incl. adhesive labels, 7/8" plugs and M12 plugs</p> | S93 | S90 | S95 | A | 106049 Pre-assembled on mounting plate | - | Right | 121860 MGB-L2HB-PNA-R-121860 |
| | H93 | H90 | H95 | | | | | |
| | <p>121863</p> <p>Pre-assembled on mounting plate, incl. adhesive labels, 7/8" plugs and M12 plugs</p> | | <p>*)</p> | <p>*)</p> | 106221 Pre-assembled on mounting plate | - | Left | 121864 MGB-L2HB-PNA-L-121864 |

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

MGB-PN

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



Data ranges

You will require the corresponding GSD file in GSDML format in order to integrate the MGB system:

GSDML-Vx.x-EUCHNER-MGB_110026-YYYYMMDD.xml

You can find the GSD file in the download area at www.euchner.de.

Prior to setup, the GSD file must be imported into the configuration software of the control system (see manual for your control system).

PROFINET data bytes (unsafe input/output area)



Assignment in input area of the bus master

| | | | | | | | | |
|---------------|-----------------------------------|----|-------|---|---|-----|-----|-------|
| Slot 1/byte 0 | - | - | S95.1 | - | - | - | - | S90.1 |
| Slot 1/byte 1 | - | - | - | - | - | - | - | - |
| Slot 2/byte 0 | - | - | - | - | - | - | - | S93 |
| Slot 3/byte 0 | ÜK | SK | - | - | - | R | R | T |
| Slot 4/byte 0 | I24 | - | - | - | - | I19 | I18 | I17 |
| Slot 1/byte 0 | Push button S90 - S95 1st contact | | | | | | | |
| Slot 1/byte 1 | Push button S90 - S95 2nd contact | | | | | | | |
| Slot 2/byte 0 | Emergency stop monitoring contact | | | | | | | |
| Slot 3/byte 0 | Locking module | | | | | | | |
| Slot 4/byte 0 | Diagnostic module | | | | | | | |

Assignment in output area of the bus master

| | | | | | | | | |
|---------------|------------------------|---|-----|---|---|---|-----|------|
| Slot 1/byte 0 | - | - | H95 | - | - | - | - | H90 |
| Slot 2/byte 0 | - | - | - | - | - | - | - | H93 |
| Slot 3/byte 0 | - | - | - | - | - | - | - | Sol. |
| Slot 4/byte 0 | - | - | - | - | - | - | 018 | 017 |
| Slot 1/byte 0 | LEDs H90 - H95 | | | | | | | |
| Slot 2/byte 0 | Emergency stop LED | | | | | | | |
| Slot 3/byte 0 | Guard locking solenoid | | | | | | | |
| Slot 4/byte 0 | Diagnostic module | | | | | | | |

PROFIsafe data bytes (safe input/output area)



Assignment of PROFIsafe in input area of the bus master

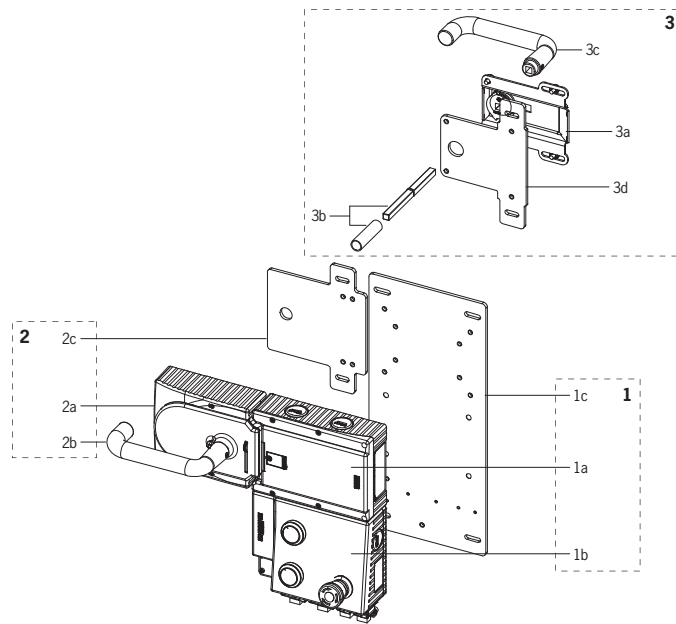
| | | | | | | | | |
|----------|-----------------------------------|---|---|-----|-----|-----|------|-----|
| Byte n+0 | - | - | - | SI5 | SI4 | SI3 | - | SI1 |
| Byte n+1 | - | - | - | - | - | - | SI10 | SI9 |
| Byte n+2 | PROFIsafe internal (control byte) | | | | | | | |
| Byte n+3 | PROFIsafe internal (ser. no.) | | | | | | | |
| Byte n+4 | PROFIsafe internal (CRC2) | | | | | | | |
| Byte n+5 | PROFIsafe internal (CRC2) | | | | | | | |
| SI1 | Emergency stop S93 | | | | | | | |
| SI3 | Door position (T) | | | | | | | |
| SI4 | Bolt position (R) | | | | | | | |
| SI5 | Guard locking (Z) | | | | | | | |
| SI9 | SK (T AND R) | | | | | | | |
| SI10 | ÜK (T AND R AND Z) | | | | | | | |

Assignment of PROFIsafe in output area of the bus master

| | | | | | | | | |
|----------|-----------------------------------|---|---|---|---|---|---|-----|
| Byte n+0 | - | - | - | - | - | - | - | SO1 |
| Byte n+1 | - | - | - | - | - | - | - | - |
| Byte n+2 | PROFIsafe internal (control byte) | | | | | | | |
| Byte n+3 | PROFIsafe internal (ser. no.) | | | | | | | |
| Byte n+4 | PROFIsafe internal (CRC2) | | | | | | | |
| Byte n+5 | PROFIsafe internal (CRC2) | | | | | | | |
| SO1 | Guard locking solenoid | | | | | | | |



System components and spare parts



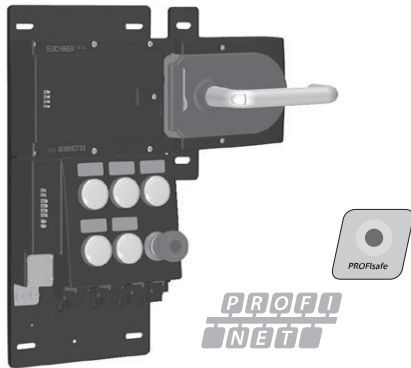
Ordering table for system components, spare parts and accessories

Notice: It is only possible to order spare parts that are given in the following ordering table with an order number.

| 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-PNAL-121853 | |
| | | For doors hinged on the right | 121863 MGB-L2B-PNAL-121863 | |
| | comprising: | | | |
| | 1a | - Evaluation module | - | |
| | 1b | - Bus module | - | |
| | 1c | - 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 | |
| | 2a | - 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 | |
| | | 3a | - Escape release | - |
| | 3b | - Escape release shaft | Standard length 118 mm (square + sleeve) | - |
| | | - Long escape release shaft (instead of item 3b) | Length 250 mm (square 8x8 mm + sleeve 182 mm long) | 106761 MGB-A-ESCAPERELEASESHAFT 250 |
| | 3c | - Door handle | Color red | 110276 MGB-A-DOORHANDLE-R-110276 |
| | 3d | - Mounting plate | For escape release MGB-E-... 109492 MGB-A-MOUNTINGPLATE-E-109492 | |

MGB-PN

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



- ▶ 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 usage as interlocking or guard locking

By means of the corresponding evaluation of the safe device data by the control system, usage can be either as 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 pushbutton can be selected using the lens set 120344 included.

Further information

- ▶ Dimension drawings see p. 121
- ▶ Technical data see p. 120
- ▶ Accessories and spare parts see p. 112
- ▶ www.euchner.de

Ordering table

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

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



Data ranges

You will require the corresponding GSD file in GSDML format in order to integrate the MGB system:

GSDML-Vx.x-EUCHNER-MGB_110026-YYYYMMDD.xml

You can find the GSD file in the download area at www.euchner.de.

Prior to setup, the GSD file must be imported into the configuration software of the control system (see manual for your control system).

PROFINET data bytes

(unsafe input/output area)

A

Assignment in input area of the bus master

| | | | | | | | | |
|---------------|-----------------------------------|----|-------|-------|---|-------|-------|-------|
| Slot 1/byte 0 | - | - | S95.1 | S94.1 | - | S92.1 | S91.1 | S90.1 |
| Slot 1/byte 1 | - | - | - | - | - | - | - | - |
| Slot 2/byte 0 | - | - | - | - | - | - | - | S93 |
| Slot 3/byte 0 | ÜK | SK | - | - | - | R | R | T |
| Slot 4/byte 0 | I24 | - | - | - | - | I19 | I18 | I17 |
| Slot 1/byte 0 | Push button S90 - S95 1st contact | | | | | | | |
| Slot 1/byte 1 | Push button S90 - S95 2nd contact | | | | | | | |
| Slot 2/byte 0 | Emergency stop monitoring contact | | | | | | | |
| Slot 3/byte 0 | Locking module | | | | | | | |
| Slot 4/byte 0 | Diagnostic module | | | | | | | |

Assignment in output area of the bus master

| | | | | | | | | |
|---------------|------------------------|---|-----|-----|---|-----|-----|------|
| Slot 1/byte 0 | - | - | H95 | H94 | - | H92 | H91 | H90 |
| Slot 2/byte 0 | - | - | - | - | - | - | - | H93 |
| Slot 3/byte 0 | - | - | - | - | - | - | - | Sol. |
| Slot 4/byte 0 | - | - | - | - | - | - | O18 | O17 |
| Slot 1/byte 0 | LEDs H90 - H95 | | | | | | | |
| Slot 2/byte 0 | Emergency stop LED | | | | | | | |
| Slot 3/byte 0 | Guard locking solenoid | | | | | | | |
| Slot 4/byte 0 | Diagnostic module | | | | | | | |

PROFIsafe data bytes

(safe input/output area)

A

Assignment of PROFIsafe in input area of the bus master

| | | | | | | | | |
|----------|-----------------------------------|---|---|-----|-----|-----|------|-----|
| Byte n+0 | - | - | - | SI5 | SI4 | SI3 | - | SI1 |
| Byte n+1 | - | - | - | - | - | - | SI10 | SI9 |
| Byte n+2 | PROFIsafe internal (control byte) | | | | | | | |
| Byte n+3 | PROFIsafe internal (ser. no.) | | | | | | | |
| Byte n+4 | PROFIsafe internal (CRC2) | | | | | | | |
| Byte n+5 | PROFIsafe internal (CRC2) | | | | | | | |
| SI1 | Emergency stop S93 | | | | | | | |
| SI3 | Door position (T) | | | | | | | |
| SI4 | Bolt position (R) | | | | | | | |
| SI5 | Guard locking (Z) | | | | | | | |
| SI9 | SK (T AND R) | | | | | | | |
| SI10 | ÜK (T AND R AND Z) | | | | | | | |

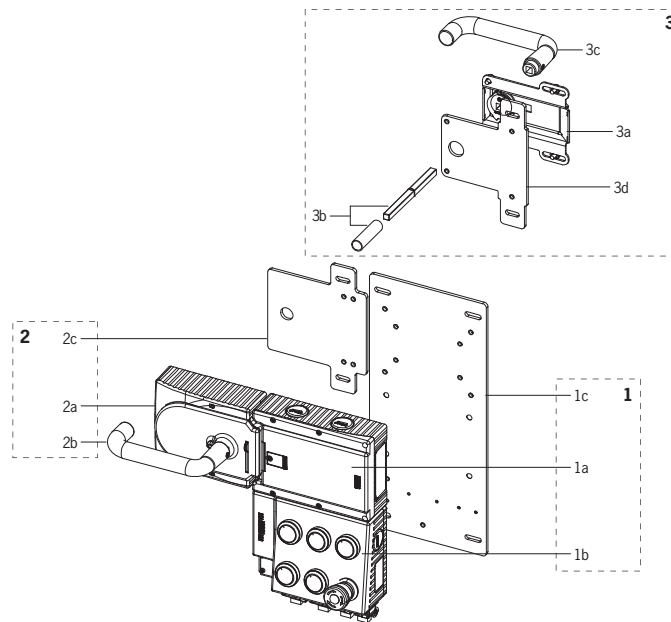
Assignment of PROFIsafe in output area of the bus master

| | | | | | | | | |
|----------|-----------------------------------|---|---|---|---|---|---|-----|
| Byte n+0 | - | - | - | - | - | - | - | S01 |
| Byte n+1 | - | - | - | - | - | - | - | - |
| Byte n+2 | PROFIsafe internal (control byte) | | | | | | | |
| Byte n+3 | PROFIsafe internal (ser. no.) | | | | | | | |
| Byte n+4 | PROFIsafe internal (CRC2) | | | | | | | |
| Byte n+5 | PROFIsafe internal (CRC2) | | | | | | | |
| S01 | Guard locking solenoid | | | | | | | |

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



System components and spare parts



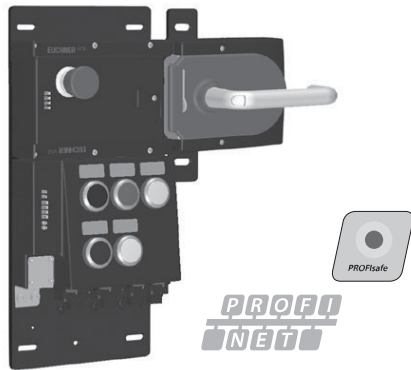
Ordering table for system components, spare parts and accessories

Notice: It is only possible to order spare parts that are given in the following ordering table with an order number.

| Position | Designation | Use/description | Order No./item | |
|----------|---|---|---|---|
| 1 | System unit MGB-L2B-... (guard locking by spring 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: | | | |
| | 1a | - Evaluation module | | - |
| 1b | - Bus module | | - | |
| 1c | - Mounting plate | | | |
| 2 | Handle module MGB-H-... comprising: | For doors hinged on the left | 111839 MGB-HAA1A6-L-111839 | |
| | | For doors hinged on the right | 111838 MGB-HAA1A6-R-111838 | |
| | 2a | - 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 | |
| | | 3a | - Escape release | - |
| | 3b | - Escape release shaft | Standard length 118 mm (square 8x8 mm + sleeve) | - |
| | | - Long escape release shaft (instead of item 3b) | Length 250 mm (square 8x8 mm + sleeve 182 mm long) | 106761 MGB-A-ESCAPERELEASESHAFT 250 |
| | 3c | - Door handle | Color red | 110276 MGB-A-DOORHANDLE-R-110276 |
| | 3d | - 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



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 usage as interlocking or guard locking

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

Illuminated emergency stop

Emergency stop with illumination that can be controlled as required.

Further information

- ▶ Dimension drawings see p. 121
- ▶ Technical data see p. 120
- ▶ Accessories and spare parts see p. 112
- ▶ www.euchner.de

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

Ordering table

| Modules in the set | | Controls and indicators | | | | | | Data ranges | Handle module Order no. separate module | Escape release Order no. separate module | Door hinge (factory setting) | Ordering data, set |
|--|----------------------------------|-------------------------|-----|-----|-----|-----|-----|-------------|--|---|---------------------------------|--|
| Version/configuration scheme Order no. module combination | Evaluation module and bus module | S1 | S90 | S91 | H92 | S94 | S95 | | | | | Order no./item |
| 113133 | | H1 | | | | H94 | H94 | | 106049 | | Right | 113134 MGB-L2HB-PNA-R-113134 (Modules pre-assembled on mounting plates) |
| | Incl. adhesive labels | | | | | | | A | | | | |
| 113990 | | | | | | | | | 106221 | | Left | 113991 MGB-L2HB-PNA-L-113991 (Modules pre-assembled on mounting plates) |
| | Incl. adhesive labels | | | | | | | | | | | |



Data ranges

You will require the corresponding GSD file in GSDML format in order to integrate the MGB system:

GSDML-Vx.x-EUCHNER-MGB_110026-YYYYMMDD.xml

You can find the GSD file in the download area at www.euchner.de.

Prior to setup, the GSD file must be imported into the configuration software of the control system (see manual for your control system).

PROFINET data bytes

(unsafe input/output area)

A

Assignment in input area of the bus master

| | | | | | | | | |
|---------------|-----------------------------------|---|-------|-------|---|-----|-------|-------|
| Slot 1/byte 1 | - | - | S95.1 | S94.1 | - | - | S91.1 | S90.1 |
| Slot 1/byte 2 | - | - | - | - | - | - | - | - |
| Slot 2/byte 1 | - | - | - | - | - | - | - | S1 |
| Slot 4/byte 1 | I24 | - | - | - | - | I19 | I18 | I17 |
| Slot 1/byte 1 | Push button S90 - S95 1st contact | | | | | | | |
| Slot 1/byte 2 | Push button S90 - S95 2nd contact | | | | | | | |
| Slot 2/byte 1 | Emergency stop monitoring contact | | | | | | | |
| Slot 4/byte 1 | Diagnostic module | | | | | | | |

Assignment in output area of the bus master

| | | | | | | | | |
|---------------|------------------------|---|-----|-----|---|-----|-----|------|
| Slot 1/byte 1 | - | - | H95 | H94 | - | H92 | - | - |
| Slot 2/byte 1 | - | - | - | - | - | - | - | H1 |
| Slot 3/byte 1 | - | - | - | - | - | - | - | Sol. |
| Slot 4/byte 1 | - | - | - | - | - | - | O18 | O17 |
| Slot 1/byte 1 | LEDs H90 - H95 | | | | | | | |
| Slot 2/byte 1 | Emergency stop LED | | | | | | | |
| Slot 3/byte 1 | Guard locking solenoid | | | | | | | |
| Slot 4/byte 1 | Diagnostic module | | | | | | | |

PROFIsafe data bytes

(safe input/output area)

A

Assignment of PROFIsafe in input area of the bus master

| | | | | | | | | |
|----------|-----------------------------------|---|---|-----|-----|-----|------|-----|
| Byte n+0 | - | - | - | SI5 | SI4 | SI3 | - | SI1 |
| Byte n+1 | - | - | - | - | - | - | SI10 | SI9 |
| Byte n+2 | PROFIsafe internal (control byte) | | | | | | | |
| Byte n+3 | PROFIsafe internal (ser. no.) | | | | | | | |
| Byte n+4 | PROFIsafe internal (CRC2) | | | | | | | |
| Byte n+5 | PROFIsafe internal (CRC2) | | | | | | | |
| SI1 | Emergency stop S1 | | | | | | | |
| SI3 | Door position (T) | | | | | | | |
| SI4 | Bolt position (R) | | | | | | | |
| SI5 | Guard locking (Z) | | | | | | | |
| SI9 | SK (T AND R) | | | | | | | |
| SI10 | ÜK (T AND R AND Z) | | | | | | | |

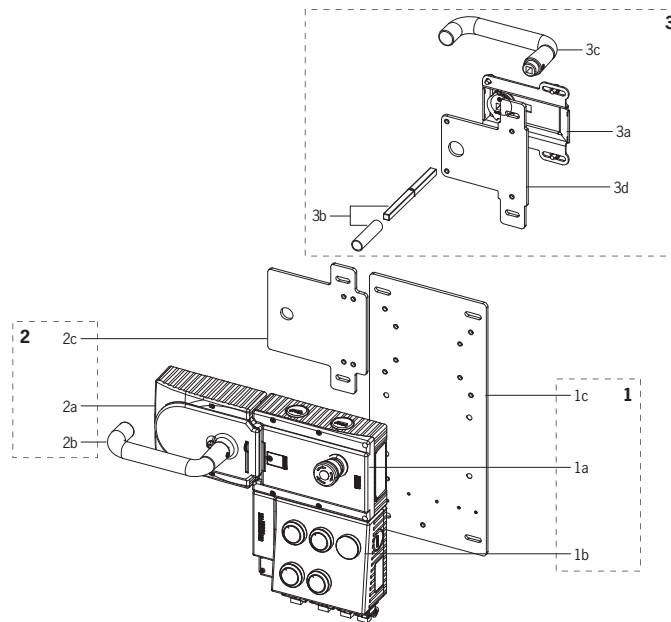
Assignment of PROFIsafe in output area of the bus master

| | | | | | | | | |
|----------|-----------------------------------|---|---|---|---|---|---|-----|
| Byte n+0 | - | - | - | - | - | - | - | S01 |
| Byte n+1 | - | - | - | - | - | - | - | - |
| Byte n+2 | PROFIsafe internal (control byte) | | | | | | | |
| Byte n+3 | PROFIsafe internal (ser. no.) | | | | | | | |
| Byte n+4 | PROFIsafe internal (CRC2) | | | | | | | |
| Byte n+5 | PROFIsafe internal (CRC2) | | | | | | | |
| S01 | Guard locking solenoid | | | | | | | |

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



System components and spare parts



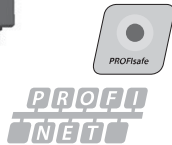
Ordering table for system components, spare parts and accessories

Notice: It is only possible to order spare parts that are given in the following ordering table with an order number.

| Position | Designation | Use/description | Order No./item | |
|----------|---|---|---|---|
| 1 | System unit MGB-L2B-... (guard locking by solenoid force) | For doors hinged on the left | 113990 MGB-L2B-PNA-L-113990 | |
| | | For doors hinged on the right | 113133 MGB-L2B-PNA-R-113133 | |
| | comprising: | | | |
| | 1a | - Evaluation module | | - |
| 1b | - Bus module | | - | |
| 1c | - 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 | |
| | 2a | - 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 | |
| | | 3a | - Escape release | - |
| | 3b | - Escape release shaft | Standard length 118 mm (square + sleeve) | - |
| | | - Long escape release shaft (instead of item 3b) | Length 250 mm (square 8x8 mm + sleeve 182 mm long) | 106761 MGB-A-ESCAPERELEASESHAFT 250 |
| | 3c | - Door handle | Color red | 110276 MGB-A-DOORHANDLE-R-110276 |
| | 3d | - 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


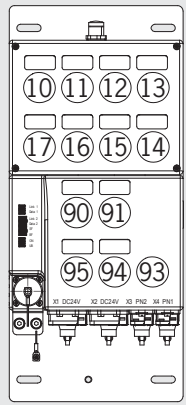













- ▶ Dimension drawings see p. 121
- ▶ Technical data see p. 120
- ▶ Accessories and spare parts see p. 63
- ▶ www.euchner.de

Ordering table

| Bus module and/or control module | | Controls and indicators | | | | | | | Data ranges | Order no./item |
|--|-----|-------------------------|--------|-----------------|---|---|---|---|-------------|---|
| Version/configuration scheme | | | | | | | | | | |
| Pre-assembled on mounting plate, incl. adhesive labels | H90 | S92 | S91 | - | - | - | - | - | A | 123759 MGB-B-A1W2A2- PN-123759 |
| | | H92 | | - | - | - | - | - | | |
| | | rd | wh | Form V 2x45° | - | - | - | - | | |

(Continued on next page)

Ordering table (continued)

| Bus module and/or control module  | | | | | | | | | | Data ranges | Order no./item |
|--|---|---|---|--|--|--|---|--|---|---------------------------------------|----------------|
| Version/configuration scheme | Controls and indicators | | | | | | | | | | |
|  <p>PN</p> <p>Pre-assembled on mounting plate, plug connector X14 for enabling switch ZSB077029, socket X6 for stacklight indicator, incl. adhesive labels</p> | S10 H10 | S11 H11 | S12 H12 | S13 H13 | S14 H14 | S15 H15 | S16 H16 | S17 H17 | B | <p>114744</p> <p>MGB-CB-PN-114744</p> | |
| |  |  |  |  | Form V, 2x60°  | Form V, 2x60°  | Form V, 2x60°  | Form V, 2x60°  | | | |
| | S93 | S90 H90 | S91 H91 | S94 H94 | S95 H95 | - | - | - | | | |
| |  |  |  | Form V, 2x60°  | Form V, 2x60°  | - | - | - | | | |

MGB-PN

Control modules MGB-...-PN

Data ranges

You will require the corresponding GSD file in GSDML format in order to integrate the MGB system:

GSDML-Vx.x-EUCHNER-MGB_110026-YYYYMMDD.xml

You can find the GSD file in the download area at www.euchner.de.

Prior to setup, the GSD file must be imported into the configuration software of the control system (see manual for your control system).

PROFINET data bytes

(unsafe input/output area)

A

With data structure A

Assignment in input area of the bus master

| | | | | | | | | |
|---------------|-------------------|---|-----|---|-----|---|---|-----|
| Slot 1/byte 0 | - | - | - | - | - | - | - | - |
| Slot 1/byte 1 | - | - | - | - | S92 | - | - | - |
| Slot 1/byte 2 | - | - | I22 | - | - | - | - | I17 |
| Slot 1/byte 1 | Push button S92 | | | | | | | |
| Slot 1/byte 2 | Diagnostic module | | | | | | | |

Assignment in output area of the bus master

| | | | | | | | | |
|---------------|------------------|---|---|---|-----|-----|---|-----|
| Slot 1/byte 0 | - | - | - | - | - | - | - | - |
| Slot 1/byte 1 | - | - | - | - | H92 | H90 | - | - |
| Slot 1/byte 2 | - | - | - | - | - | - | - | O17 |
| Slot 1/byte 1 | LEDs H91 and H92 | | | | | | | |
| Slot 1/byte 2 | Acknowledgment | | | | | | | |

PROFIsafe data bytes

(safe input/output area)

A

Assignment of PROFIsafe in input area of the bus master

| | | | | | | | | |
|----------|---|-----|-----|---|---|---|---|---|
| Byte n+0 | SI8 | SI7 | SI6 | - | - | - | - | - |
| Byte n+1 | SI16 | - | - | - | - | - | - | - |
| Byte n+2 | - | - | - | - | - | - | - | - |
| Byte n+3 | - | - | - | - | - | - | - | - |
| Byte n+4 | PROFIsafe internal (control byte) | | | | | | | |
| Byte n+5 | PROFIsafe internal (ser. no.) | | | | | | | |
| Byte n+6 | PROFIsafe internal (CRC2) | | | | | | | |
| Byte n+7 | PROFIsafe internal (CRC2) | | | | | | | |
| SI6 | Push button S91 position S91.1 (left) | | | | | | | |
| SI7 | Push button S91 position S91.2 (center) | | | | | | | |
| SI8 | Push button S91 position S91.3 (right) | | | | | | | |
| SI16 | Push button S92 (not safe!) | | | | | | | |

Assignment of PROFIsafe in output area of the bus master

| | | | | | | | | |
|----------|-----------------------------------|---|---|---|---|---|---|---|
| Byte n+0 | - | - | - | - | - | - | - | - |
| Byte n+1 | - | - | - | - | - | - | - | - |
| Byte n+2 | PROFIsafe internal (control byte) | | | | | | | |
| Byte n+3 | PROFIsafe internal (ser. no.) | | | | | | | |
| Byte n+4 | PROFIsafe internal (CRC2) | | | | | | | |
| Byte n+5 | PROFIsafe internal (CRC2) | | | | | | | |

With data structure C

Assignment in input area of the bus master

| | | | | | | | | |
|---------------|---|---|-----|---|---|-------|-------|-------|
| Slot 1/byte 0 | - | - | - | - | - | S92 | - | - |
| Slot 1/byte 1 | - | - | - | - | - | - | - | - |
| Slot 2/byte 0 | - | - | - | - | - | S91.3 | S91.2 | S91.1 |
| Slot 3/byte 0 | - | - | I22 | - | - | - | - | I17 |
| Slot 3/byte 1 | - | - | - | - | - | - | - | - |

Assignment in output area of the bus master

| | | | | | | | | |
|---------------|----------------|---|---|---|---|---|---|-----|
| Slot 1/byte 0 | - | - | - | - | - | - | - | H90 |
| Slot 2/byte 0 | - | - | - | - | - | - | - | - |
| Slot 3/byte 0 | - | - | - | - | - | - | - | O17 |
| Slot 3/byte 1 | - | - | - | - | - | - | - | - |
| Slot 1/byte 0 | LED H90 | | | | | | | |
| Slot 3/byte 0 | Acknowledgment | | | | | | | |

Assignment of PROFIsafe in input area of the bus master

| | | | | | | | | |
|----------|--|------|------|---|---|---|---|---|
| Byte n+0 | SI8 | SI7 | SI6 | - | - | - | - | - |
| Byte n+1 | - | - | - | - | - | - | - | - |
| Byte n+2 | - | SI23 | SI22 | - | - | - | - | - |
| Byte n+3 | - | - | - | - | - | - | - | - |
| Byte n+4 | PROFIsafe internal (control byte) | | | | | | | |
| Byte n+5 | PROFIsafe internal (ser. no.) | | | | | | | |
| Byte n+6 | PROFIsafe internal (CRC2) | | | | | | | |
| Byte n+7 | PROFIsafe internal (CRC2) | | | | | | | |
| SI6 | Push button S91 position S91.1 (left) | | | | | | | |
| SI7 | Push button S91 position S91.2 (center) | | | | | | | |
| SI8 | Push button S91 position S91.3 (right) | | | | | | | |
| SI22 | Acknowledgment push button S91 position S91.1 (left) | | | | | | | |
| SI23 | Acknowledgment push button S91 position S91.2 (center) | | | | | | | |

Assignment of PROFIsafe in output area of the bus master

| | | | | | | | | |
|----------|-----------------------------------|---|---|-----|---|---|---|---|
| Byte n+0 | - | - | - | S04 | - | - | - | - |
| Byte n+1 | - | - | - | - | - | - | - | - |
| Byte n+2 | PROFIsafe internal (control byte) | | | | | | | |
| Byte n+3 | PROFIsafe internal (ser. no.) | | | | | | | |
| Byte n+4 | PROFIsafe internal (CRC2) | | | | | | | |
| Byte n+5 | PROFIsafe internal (CRC2) | | | | | | | |
| S04 | External reset | | | | | | | |

PROFINET data bytes (unsafe input/output area)

B

Assignment in input area of the bus master

| | | | | | | | | |
|---------------|--|-------|-------|-------|-------|-------|-------|-------|
| Slot 1/byte 0 | - | - | S95.1 | S94.1 | - | - | S91.1 | S90.1 |
| Slot 1/byte 1 | - | - | S95.2 | S94.2 | - | - | - | - |
| Slot 2/byte 0 | S17.1 | S16.1 | S15.1 | S14.1 | S13.1 | S12.1 | S11.1 | S10.1 |
| Slot 2/byte 1 | S17.2 | S16.2 | S15.2 | S14.2 | - | - | - | - |
| Slot 4/byte 1 | - | - | - | - | - | - | - | S93 |
| Slot 5/byte 0 | + & - | ZT - | ZT + | - | - | - | - | ZTM |
| Slot 6/byte 0 | - | - | - | - | I20 | I19 | - | I17 |
| Slot 1/byte 0 | Push button S90 - S91 and S94 - S95 1st contact | | | | | | | |
| Slot 1/byte 1 | Push button S94 - S95 2nd contact | | | | | | | |
| Slot 2/byte 0 | Push button S10 - S17 1st contact | | | | | | | |
| Slot 2/byte 1 | Push button S10 - S17 2nd contact | | | | | | | |
| Slot 4/byte 0 | Emergency stop monitoring contact (NHM) | | | | | | | |
| Slot 5/byte 0 | Enabling switch +/- and monitoring contact (ZTM) | | | | | | | |
| Slot 6/byte 0 | Diagnostic module | | | | | | | |

Assignment in output area of the bus master

| | | | | | | | | |
|---------------|--|-----|-----|-----|-----|-----|------|------|
| Slot 1/byte 0 | - | - | H95 | H94 | - | - | H91 | H90 |
| Slot 2/byte 0 | H17 | H16 | H15 | H14 | H13 | H12 | H11 | H10 |
| Slot 3/byte 0 | - | - | - | O21 | O20 | O19 | O18 | O17 |
| Slot 4/byte 1 | - | - | - | - | - | - | - | - |
| Slot 5/byte 0 | - | - | - | - | - | - | ZT - | ZT + |
| Slot 6/byte 0 | - | - | - | - | - | - | - | O17 |
| Slot 1/byte 0 | LEDs H90 - H95 | | | | | | | |
| Slot 2/byte 0 | LEDs H10 - H17 | | | | | | | |
| Slot 3/byte 0 | Stacklight module O17 - O21 | | | | | | | |
| Slot 4/byte 0 | LED for possible emergency stop (not used) | | | | | | | |
| Slot 5/byte 0 | Enabling switch LEDs +/- (ZT) | | | | | | | |
| Slot 6/byte 0 | Diagnostic module | | | | | | | |

PROFIsafe data bytes (safe input/output area)

B

Assignment of PROFIsafe in input area of the bus master

| | | | | | | | | | |
|----------|-----------------------------------|---|---|---|---|---|---|-----|-----|
| Byte n+0 | - | - | - | - | - | - | - | SI2 | SI1 |
| Byte n+1 | - | - | - | - | - | - | - | - | - |
| Byte n+2 | PROFIsafe internal (control byte) | | | | | | | | |
| Byte n+3 | PROFIsafe internal (ser. no.) | | | | | | | | |
| Byte n+4 | PROFIsafe internal (CRC2) | | | | | | | | |
| Byte n+5 | PROFIsafe internal (CRC2) | | | | | | | | |
| SI1 | Emergency stop S93 | | | | | | | | |
| SI2 | Enabling switch X14 | | | | | | | | |

Assignment of PROFIsafe in output area of the bus master

| | | | | | | | | | |
|----------|-----------------------------------|---|---|---|---|---|---|---|---|
| Byte n+0 | - | - | - | - | - | - | - | - | - |
| Byte n+1 | - | - | - | - | - | - | - | - | - |
| Byte n+2 | PROFIsafe internal (control byte) | | | | | | | | |
| Byte n+3 | PROFIsafe internal (ser. no.) | | | | | | | | |
| Byte n+4 | PROFIsafe internal (CRC2) | | | | | | | | |
| Byte n+5 | PROFIsafe internal (CRC2) | | | | | | | | |

Assignment of the terminal plugs

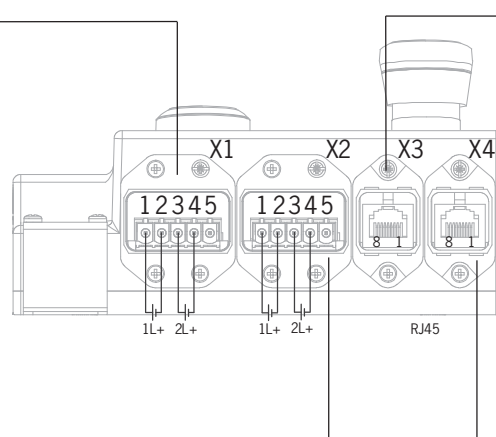
Terminal assignment for version with push-pull plugs

| Pin | Description |
|------|--------------------------------|
| X1.1 | 1L+ operating voltage DC 24 V |
| X1.2 | 1M operating voltage 0 V |
| X1.3 | 2L+ auxiliary voltage* DC 24 V |
| X1.4 | 2M auxiliary voltage* 0 V |
| X1.5 | Function earth |

X2: For looping through for connected devices

| | |
|------|--------------------------------|
| X2.1 | 1L+ operating voltage DC 24 V |
| X2.2 | 1M operating voltage 0 V |
| X2.3 | 2L+ auxiliary voltage* DC 24 V |
| X2.4 | 2M auxiliary voltage* 0 V |
| X2.5 | Function earth |

* The auxiliary voltage is not required for the MGB system



| Pin | Description |
|------|---------------------|
| X3.1 | Receive Data +RD |
| X3.2 | Receive Data -RD_N |
| X3.3 | Transmit Data +TD |
| X3.4 | Ground GND (RJ45) |
| X3.5 | Ground GND (RJ45) |
| X3.6 | Transmit Data -TD_N |
| X3.7 | Ground GND (RJ45) |
| X3.8 | Ground GND (RJ45) |

X4: For looping through for connected devices (integrated RT switch)

| | |
|------|---------------------|
| X4.1 | Receive Data +RD |
| X4.2 | Receive Data -RD_N |
| X4.3 | Transmit Data +TD |
| X4.4 | Ground GND (RJ45) |
| X4.5 | Ground GND (RJ45) |
| X4.6 | Transmit Data -TD_N |
| X4.7 | Ground GND (RJ45) |
| X4.8 | Ground GND (RJ45) |

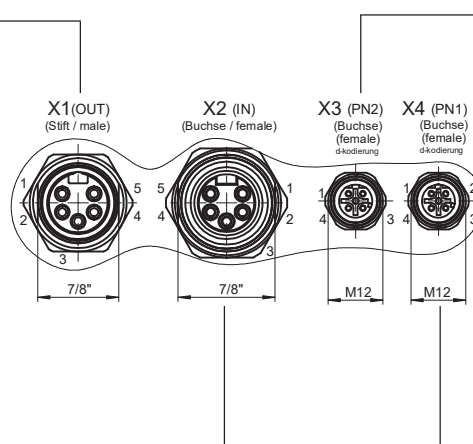
Terminal assignment for version with 7/8" and M12 plugs

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

X2: For looping through for connected devices

| | |
|------|-------------------------------|
| X2.1 | N2 auxiliary voltage *0 V |
| X2.2 | N1 operating voltage 0 V |
| X2.3 | Function earth |
| X2.4 | L1 operating voltage DC 24 V |
| X2.5 | L2 auxiliary voltage* DC 24 V |

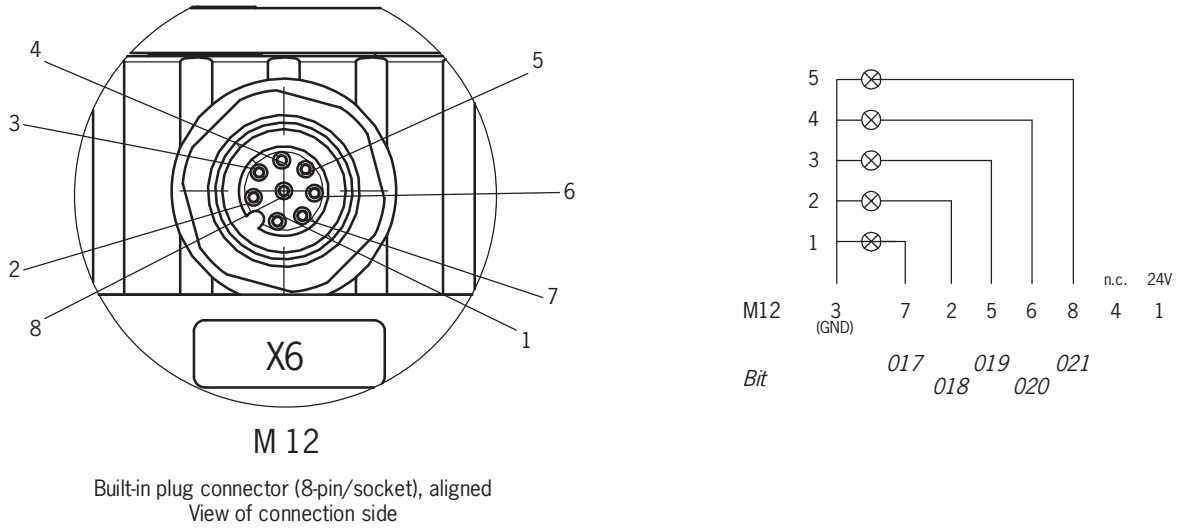
* The auxiliary voltage is not required for the MGB system



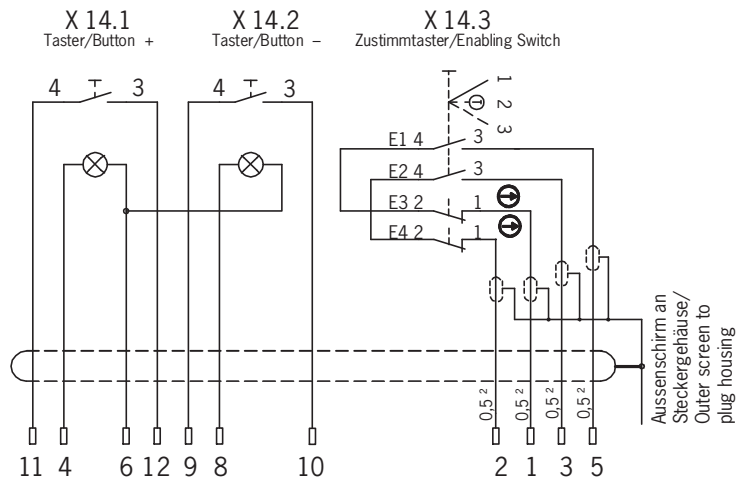
| Pin | Description |
|--------------------------------|---------------------|
| X3.1 | Transmit Data +TD |
| X3.2 | Receive Data +RD |
| X3.3 | Transmit Data -TD_N |
| X3.4 | Receive Data -RD_N |
| Function earth on plug housing | |

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

Terminal assignment, plug connector X6 for stacklight module



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



MGB-PN

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 |
| 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} | 2000 N |
| Connection options, power supply | 2 x push-pull power ¹⁾ or 2 x plug connector 7/8" according to ANSI/B93.55M-1981 |
| Connection type, bus | 2 x RJ 45, push-pull, according to IEC 61076-3-117 variant 14, screened ¹⁾ or 2 x M12 plug connector (d-coded) according to IEC 61076-2-101 |
| Connection 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 according 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 acc. with EN 61000-4 and DIN EN 61326-3-1 |
| Switching frequency max. | 1 Hz |
| Risk times max. (switch-off times) ²⁾ | |
| - Emergency stop | 220 ms |
| - Enabling switch | 220 ms |
| - Operating mode selector switch | 220 ms |
| - Door position | 550 ms |
| - Bolt position | 550 ms |
| - Guard locking | 550 ms |
| Reliability values according 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 x 10 ⁵ |
| - Enabling switch | According to switch information from manufacturer |

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

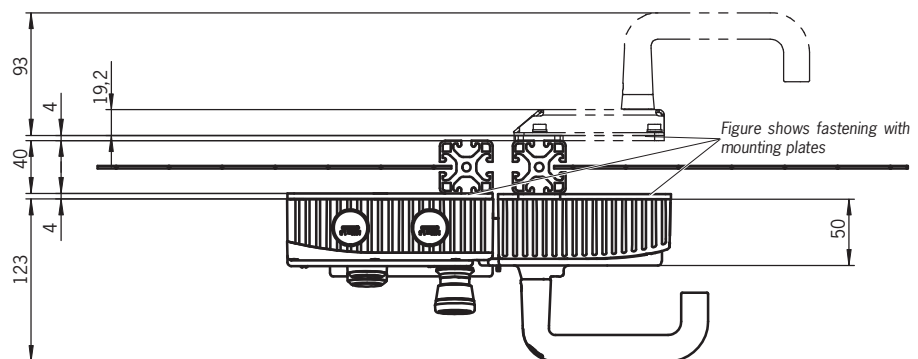
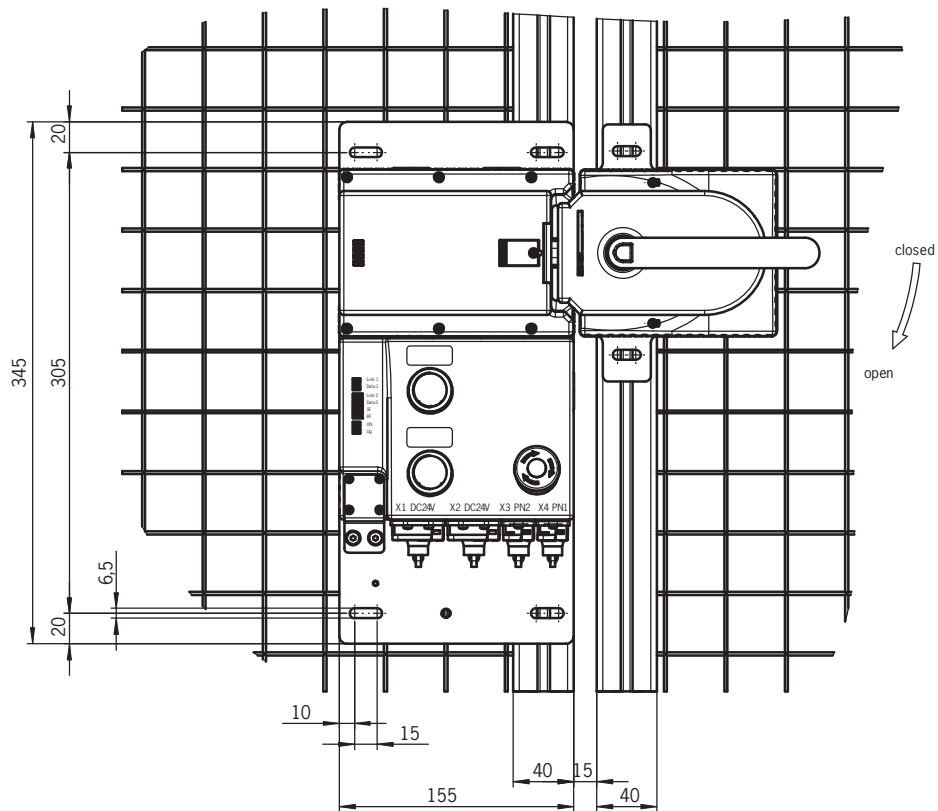
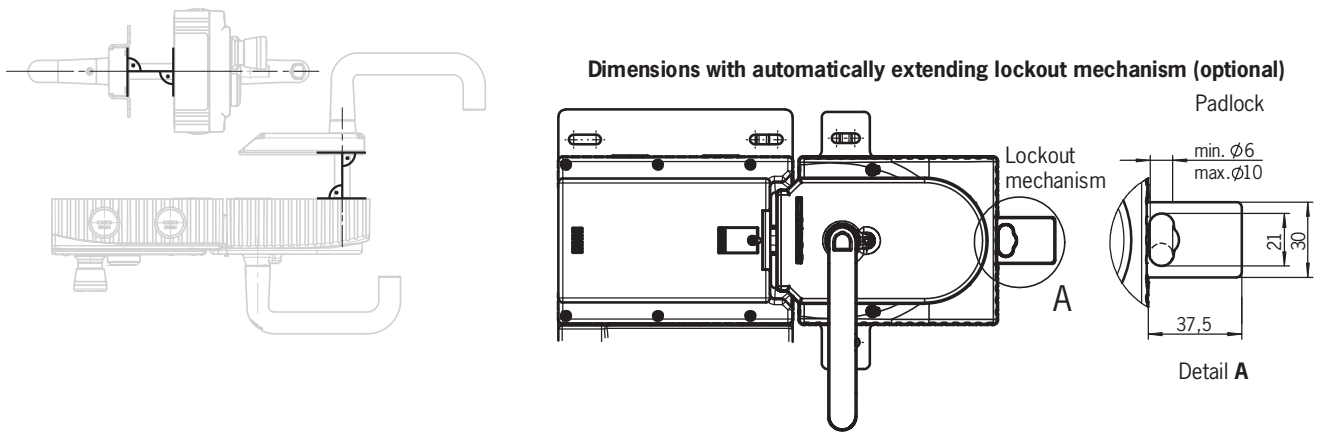
2) The risk time is the max. time between the change in the input status and the deletion of the corresponding bit in the bus protocol.

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.

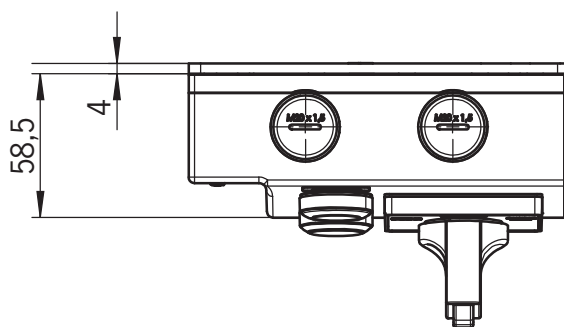
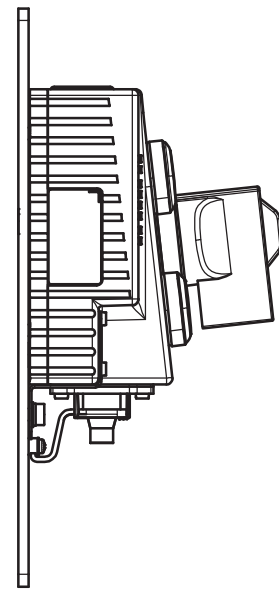
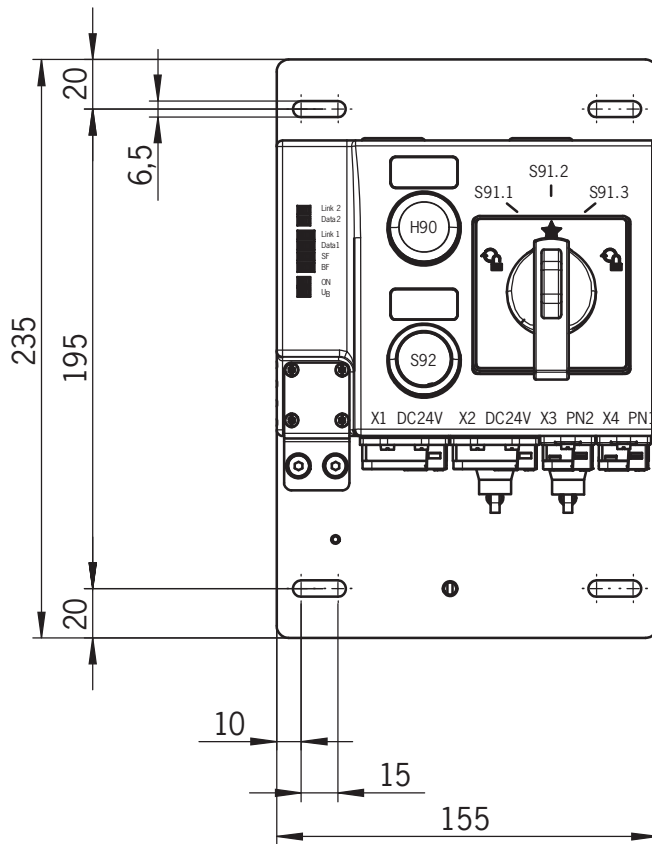
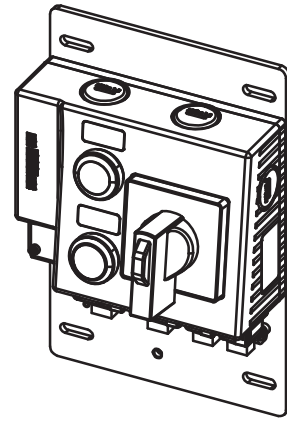
Dimension drawings

Locking set

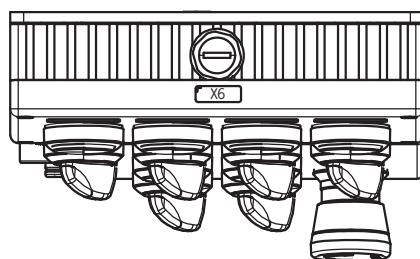
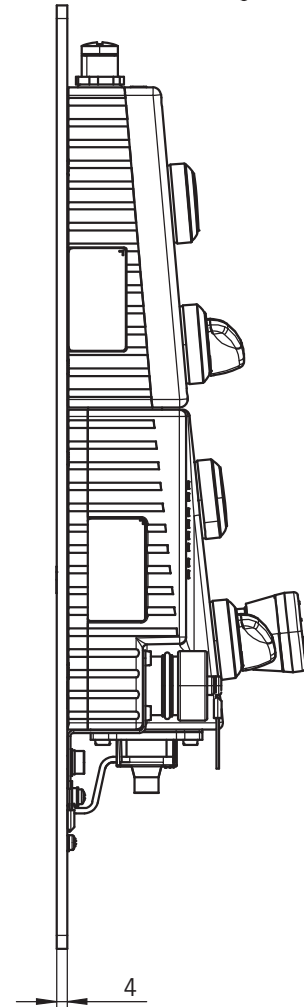
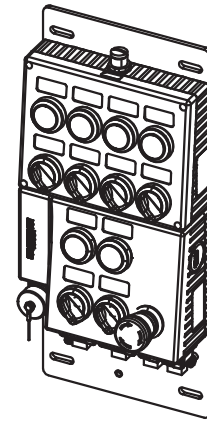
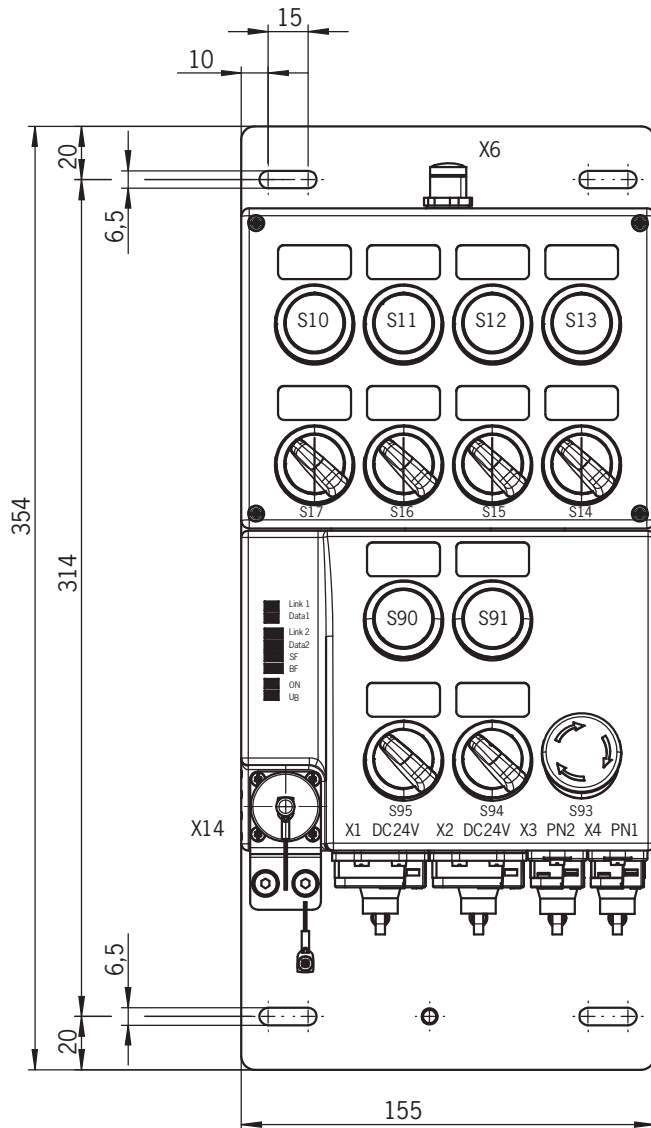


(Figure shows version for doors hinged on the right, pre-assembled on mounting plates)

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)



MGB-PN