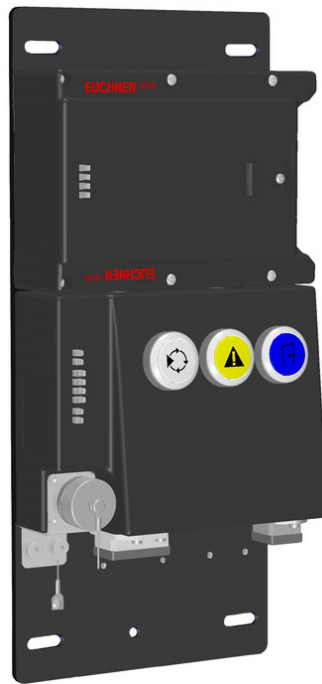


ITEM 116517 MGB-L1B-PNC-R-116517

| Description | Technical data | Accessories | Downloads |
|-------------|----------------|-------------|-----------|
|-------------|----------------|-------------|-----------|



Features

- › Guard locking with guard lock monitoring
- › 3 pushbuttons illuminated with symbol
- › Push-pull plug
- › Including terminal plug for enabling switch (RC12, 12-pin)
- › Pre-assembled on mounting plates
- › Multicode

Profinet connection

Connection via push-pull plugs according to IEC 61076-3-117

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).

Approvals



Mechanical values and environment

| | |
|---|--|
| Housing material | Reinforced plastic, die-cast zinc nickel-plated, stainless steel |
| Weight | Net 3,1 kg |
| Ambient temperature | |
| At $U_B = 24V DC$ | -20 ... 55 °C |
| Degree of protection | IP54 |
| Resilience to vibration | In accordance with EN 60947-5-3 |
| Mechanical life | |
| In case of use as door stop, and 1 Joule impact energy | 1×10^6 $0,1 \times 10^6$ |
| Installation position | Door hinge DIN right |
| Reaction time | |
| Enabling switch | Switch-off timemax.250 ms [1] |
| Door position | Switch-off timemax.550 ms [2] |
| Bolt position | Switch-off timemax.550 ms [3] |
| Guard locking | Switch-off timemax.550 ms [4] |
| Switching frequency | 0,25 Hz |
| Connection | |
| According to IEC 61076-3-117 variant 14, screened, Profinet I/O cable, at least cat. 5e | Push-pull power [5] Push-pull RJ45 [6] |
| | Plug connector RC12 [7] |
| Guard locking principle | Closed-circuit current principle |
| Locking force F_{Zh} | 2000 N |

Electrical connection ratings

| | |
|---|--|
| Current consumption | max.500 mA |
| Rated insulation voltage U_i | 75 V |
| Rated impulse withstand voltage U_{imp} | 0,5 kV |
| Maximum feed-in current in the connection block | |
| X1 | max.4000 mA |
| EMC protection requirements | In accordance with EN 61000-4 and EN 61326-3-1 |
| Degree of contamination (external, according to EN 60947-1) | 3 |
| Connecting cable | |
| Ethernet | Profinet I/O cable, at least cat. 5e |
| Safety class | III |

| | |
|----------------------|---|
| Transponder coding | Multicode |
| | Power supply X1 |
| Operating voltage DC | L1 24 V DC -15% ... 10% ^[8] |
| Auxiliary voltage DC | L2 24 V DC -15% ... +10% ^[9] |
| Fusing | external Slow blow min.1 A |

Interface, bus

| | |
|----------------|--|
| Data interface | Ethernet |
| Data protocol | Bus protocol Profinet (IEC 61158 type 10) Safety protocol Profisafe (IEC 61784-3-3) |

Operating distance

| | |
|--------------------------------------|-------------------------|
| Assured switch-off distance S_{ar} | Door position max.65 mm |
|--------------------------------------|-------------------------|

Controls and indicators

| | |
|--------------------|--------------------------|
| Assignment diagram | B1 |
| Assignment diagram | L0 |
| Control/indicator | |
| | Position 90 |
| Version | Illuminated push buttons |
| Special features | Printed |
| Color | white |
| Switching element | 1NO |
| Slide-in label | |
| Control/indicator | |
| | Position 91 |
| Version | Illuminated push buttons |
| Special features | Printed |
| Color | Yellow |
| Switching element | 1NO |
| Slide-in label | |
| Control/indicator | |
| | Position 92 |
| Version | Illuminated push buttons |
| Special features | Printed |
| Color | Blue |

| | |
|-------------------|-----|
| Switching element | 1NO |
| Slide-in label | |

Miscellaneous

| | |
|------------------------|----------|
| Product version number | V3.30.11 |
|------------------------|----------|

Reliability values acc. to EN ISO 13849-1

| | |
|--------------------------|--|
| | Monitoring of guard locking and the safety guard position |
| Category | 4 |
| Performance Level | PL e |
| PFH _D | 4.07×10^{-8} [10] |
| Diagnostic Coverage (DC) | 99 |
| | Control of the guard locking |
| Category | 4 |
| Performance Level | PL e |
| PFH _D | 3.91×10^{-8} |
| | Enabling switch |
| B10 _D | |
| Enabling switch | According to manufacturer's specifications |
| | Enabling switch evaluation |
| Category | 4 |
| Performance Level | PL e |
| PFH _D | 4.1×10^{-8} |
| <hr/> | |
| Safety Integrity Level | SIL 3 (EN 62061:2005) |
| Mission time | 20 |

[1, 2, 3, 4] The reaction time is the max. time between the change in the input status and the deletion of the corresponding bit in the bus protocol.

[5] X1 (The document PROFINET "Cabling and Interconnection Technology" from the PNO aids in the correct selection of wiring.)

[6] X4 (The document PROFINET "Cabling and Interconnection Technology" from the PNO aids in the correct selection of wiring.)

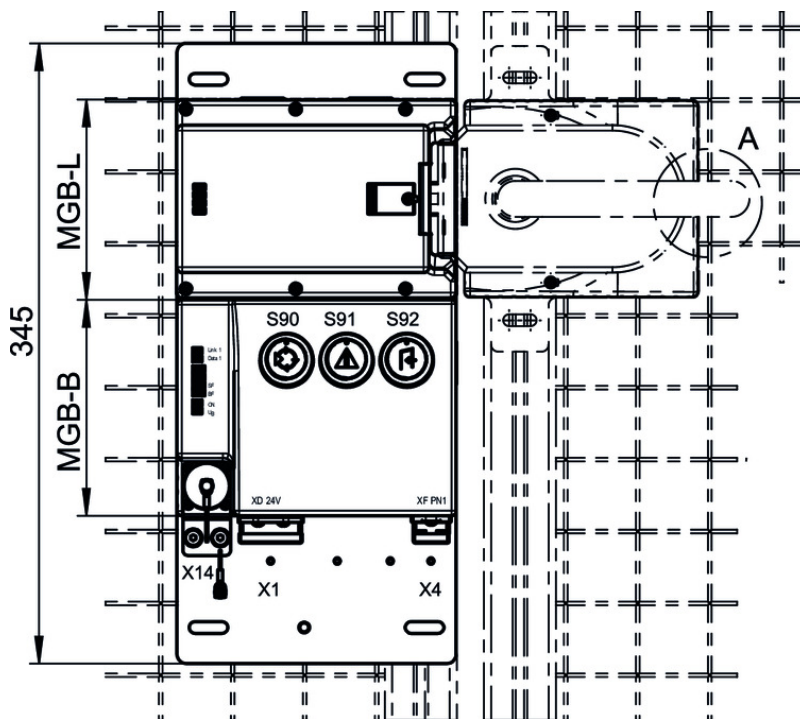
[7] X14

[8] (Reverse polarity protected, regulated, residual ripple <5%, PELV)

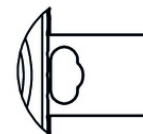
[9] The auxiliary voltage is not required for the MGB system

[10] Fixed failure rate without consideration of faults in wearing parts.

Dimension drawing



Detail A
Sperrverriegelung im
ausgefahrenen Zustand



Miscellaneous accessories

▼ Lens set 6 colors



120378 AY-SET-LNS-0002-120378

▼ Lens set 5 colors



120344 AY-SET-LNS-0001-120344

▼ Lens set labeled



120377 AY-SET-LNS-SY01-120377



125359 AY-SET-LNS-SY02-125359



126158 AY-SET-LNS-SY03-126158

▼ Adhesive labels

114529 MGB-A-PLATESET-NN01-114529

▼ Features

- › Adhesive labels suitable for MGB evaluation modules, bus modules and

- control modules
- › silver, blank
- › Packaging unit = 10 pcs.

▼ Lens set, three colors



158307 AY-SET-LNS-SY04-158307

Instructions

▼ Betriebsanleitung Sicherheitssysteme MGB-L..B-PN.-... (PROFINET) mit Datenstruktur Typ B ab V3.30.0

| | Doc. no. | Version | Language | Download |
|---|----------|----------|----------|----------|
| Betriebsanleitung Sicherheitssysteme MGB-L..B-PN.-... (PROFINET) mit Datenstruktur Typ B ab V3.30.0 | 115174 | 07-02/15 | | 3.2 MB |
| Operating Instructions Safety Systems MGB-L..B-PN.-... (PROFINET) with Data Structure Type B from V3.30.0 | 115174 | 07-02/15 | | 3.2 MB |

▼ Sicherheitsinformation (Teil der Betriebsanleitung Sicherheitssystem MGB-L.B-PN.-... (PROFINET)) ab V3.30.0

| | Doc. no. | Version | Language | Download |
|--|----------|----------|----------|----------|
| Sicherheitsinformation (Teil der Betriebsanleitung Sicherheitssystem MGB-L.B-PN.-... (PROFINET)) ab V3.30.0 Safety Information (Part of the Operating Instructions Safety System MGB-L.B-PN.-... (PROFINET)) from V3.30.0 | 123621 | 02-03/15 | | 0.2 MB |

Application example


▼ Anschluss MGB-L1B-PN... an Siemens S7 315F (TIA Portal V13)







| | Doc. no. | Version | Language | Download |
|--|----------|----------|----------|----------|
| Anschluss MGB-L1B-PN... an Siemens S7 315F (TIA Portal V13) | AP000226 | 01-02/17 | | 1.5 MB |
| Connecting MGB-L1B-PN... to Siemens S7 315F (TIA Portal V13) | AP000226 | 01-02/17 | | 1.7 MB |

▼ Anschluss MGB-L2B-PN... an Siemens S7 315F

| | Doc. no. | Version | Language | Download |
|--|----------|----------|----------|----------|
| Anschluss MGB-L2B-PN... an Siemens S7 315F | AP000222 | 02-09/16 | | 2.0 MB |
| Connection of MGB-L2B-PN... to Siemens S7 315F | AP000222 | 02-09/16 | | 1.6 MB |

Declaration of conformity

 EU-Konformitätserklärung

| | Doc. no. | Version | Language | Download |
|-------------------------------|-----------------|----------------|---|--|
| EU-Konformitätserklärung | 2123624 | 06-01/17 |  |  0.3 MB |
| Declaración UE de conformidad | | |  | |
| Déclaration UE de conformité | | |  | |
| Dichiarazione di conformità | | |  | |
| EU declaration of conformity | | |  | |