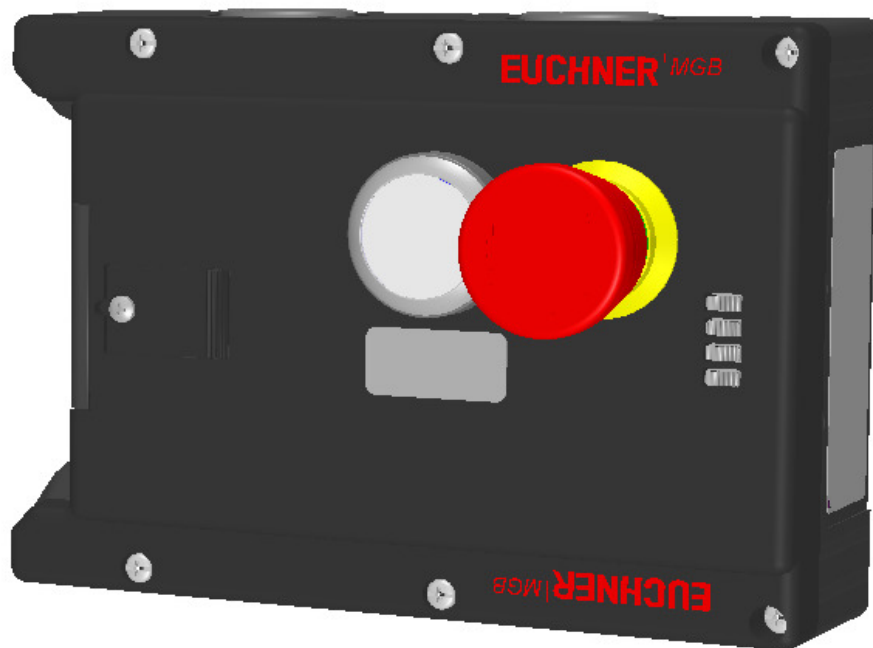


ITEM 121028 MGB-L2-ARA-BL3A1-M-L-121028

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



Features

- › Guard locking with guard lock monitoring (switched off)
- › Can be connected in series with other AR devices (e.g. CES-AR and CET-AR)
- › Emergency stop according to ISO 13850
- › 1 pushbuttons (illuminated)
- › With lens set, 6 pcs.
- › incl. adhesive label
- › With cable entry
- › Unicode

Guard locking type

MGB- The locking arm is kept in locked position by solenoid force and
L2... unlocked by spring force when the solenoid is switched off (open-circuit current principle, electrically locked).

Guard lock monitoring switched off

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

Door hinge

A mechanical door stop is permanently integrated into the evaluation module of the MGB. A marking on the stop makes adjustment easier.

LED indicator

The LED indicator indicates all important system and status information.

Monitoring outputs

- OD** ON when the door is closed
 - OT** Bolt tongue inserted in the evaluation module
 - OL** Guard locking solenoid in locked position
 - OI** Diagnostics; there is a fault
-

Emergency stop device

- S1** 2 positively driven NC contacts and 1 NO contact (e.g. monitoring contact), emergency stop with turn-to-reset, not illuminated
-

Pushbutton

- S2** 1 NO contact, illuminated
-

Lens set

The color of the pushbutton can be selected using the lens set included (5 colors). Item no.: 120344 (see Accessories)

Adhesive labels

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

Approvals



Mechanical values and environment

| | |
|---------------------|--|
| Housing material | Reinforced plastic; die-cast zinc nickel-plated, stainless steel |
| Weight | Net 0,75 kg |
| Ambient temperature | At $U_B = 24V DC$ -20 ... 55 °C |

| | |
|--|--------------------------------|
| Degree of protection | IP65 |
| Mechanical life | |
| | 1×10^6 |
| In case of use as door stop, and 1 Joule impact energy | $0,1 \times 10^6$ |
| Installation position | Door hinge DIN left |
| Switching frequency | 0,25 Hz |
| Connection | Cable entries M20x1.5 |
| Guard locking principle | Open-circuit current principle |
| Locking force F_{Zh} | 2000 N |

Electrical connection ratings

| | |
|--|---|
| Utilization category according to EN 60947-5-2 | |
| DC-13 | 24V 200mA ^[1] |
| Rated insulation voltage U_i | 30 V |
| Rated impulse withstand voltage U_{imp} | 1,5 kV |
| Degree of contamination (external, according to EN 60947-1) | 3 |
| Connection cross-section | |
| (Rigid/flexible) | 0,13 ... 1,5 mm ² |
| (Rigid/flexible) with cable end sleeve according to DIN 46 228/1 | 0,25 ... 1,5 mm ² |
| (Rigid/flexible) with cable end sleeve with collar according to DIN 46 228/1 | 0,25 ... 0,75 mm ² |
| Safety class | III |
| Discrepancy time | |
| Between FO1A and FO1B | max.10 ms |
| Risk time according to EN 60947-5-3 | max.350 ms |
| Transponder coding | Unicode |
| | Power supply U_B |
| Operating voltage DC | |
| U_B | 24 V DC -15% ... 10% ^[2] |
| Current consumption | |
| I_{UB} | max.80 mA ^[3] |
| | Power supply U_A |
| Operating voltage DC | |
| U_A | 24 V DC -15% ... 10% ^[4] |
| Current consumption | |
| I_{UA} | max.375 mA ^[5] |
| | Safety outputs FO1A, FO1B |
| Test pulses | max.1 ms |
| Test-pulse interval | min.100 ms |
| Type of output | Semiconductor outputs, p-switching, short circuit-proof |
| Output voltage | |
| $U_{FO1A} / U_{FO1B} \text{ HIGH}$ | $U_B - 2V \dots U_B \text{ V DC}$ ^[6] |

| | |
|-------------------------------|---|
| U_{FO1A} / U_{FO1B} LOW | 0 ... 1 V DC |
| Output current | |
| Per safety output FO1A / FO1B | 1 ... 200 mA |
| | Monitoring outputs OD, OT, OL, OI |
| Type of output | Semiconductor outputs, p-switching, short circuit-proof |
| Output voltage | $U_A - 2V$... U_A V DC [7] |
| Output current | max.50 mA |
| | Controls and indicators |
| Switching voltage | U_A V |
| Switching current | 1 ... 10 mA |
| Breaking capacity | max.0,25 W |
| Power supply LED | 24 V DC |
| | Emergency stop |
| Switching voltage | 5 ... 24 V |
| Switching current | 1 ... 100 mA |
| Breaking capacity | max.0,25 W |
| Power supply LED | 24 V DC |
| | Solenoid control input IMP1, IMP2, IMM |
| Test pulses | max.5 ms |
| Test-pulse interval | min.100 ms |

Controls and indicators

| | |
|--------------------|--------------------------|
| Assignment diagram | L1 |
| Control/indicator | |
| | Position 1 |
| Version | Emergency stop |
| Special features | With auxiliary contact |
| Color | |
| Switching element | 2 pos. driven NC + 1NO |
| Control/indicator | |
| | Position 2 |
| Version | Illuminated push buttons |
| Special features | |
| Color | |
| Switching element | 1NO |

Miscellaneous

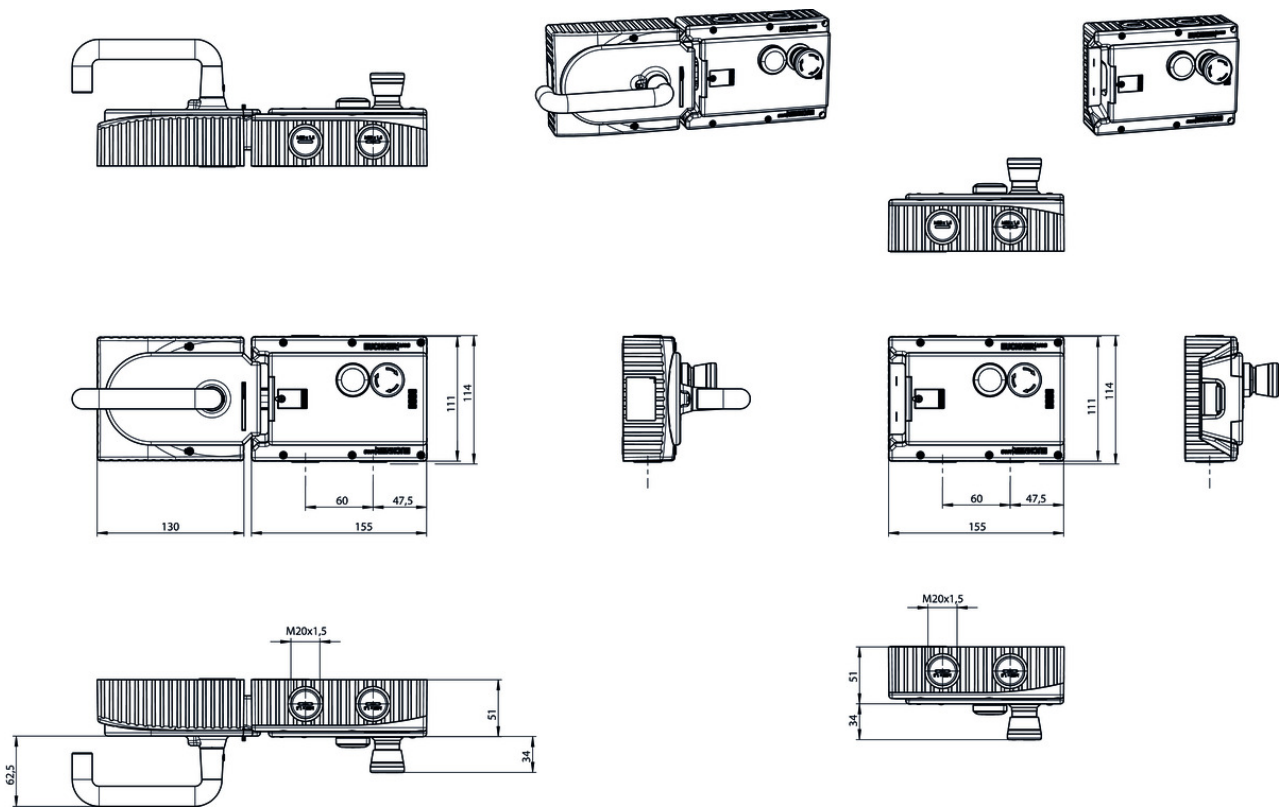
| | |
|------------------------|--------------------------------|
| Additional feature | Incl. cover set ID. No. 120344 |
| Product version number | V3.0.3 |
| Slide-in label | 1 pc. without marking |

Reliability values acc. to EN ISO 13849-1

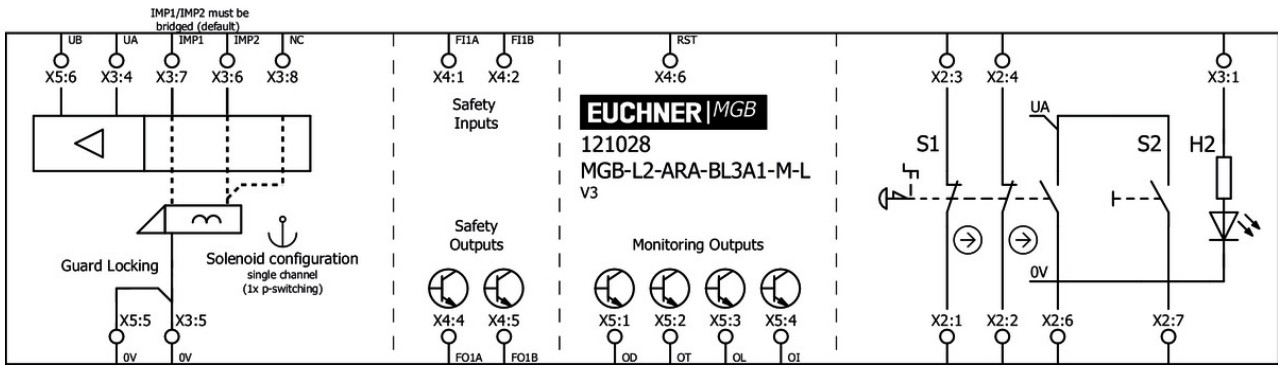
| | |
|-------------------|--|
| | Monitoring of guard locking and the safety guard position |
| Category | 4 |
| Performance Level | PL e |
| PFH _D | 3.7×10^{-9} |
| | Emergency stop |
| B10 _D | Emergency stop $0,065 \times 10^6$ |
| <hr/> | |
| Mission time | 20 y |

- [1] Caution: outputs must be protected with a free-wheeling diode in case of inductive loads.
- [2, 4] (Reverse polarity protected, regulated, residual ripple <5%, PELV)
- [3] (no load on outputs)
- [5] (With energized guard locking solenoid and unloaded outputs OD, OT, OL, OI, +20 °C, 24V)
- [6, 7] Value at a switching current of 50mA without taking into account the cable lengths

Dimension drawing



Cable entry



Miscellaneous accessories

▼ 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

▼ Lens set 6 colors



120378 AY-SET-LNS-0002-120378

▼ 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

Mounting accessories

- ▼ Mounting plate for evaluation modules MGB-L-AR-... and MGB-L-AP-...



109490 MGB-A-MOUNTINGPLATE-L-109490

- ▼ Features

- › Easy and quick mounting (only two screws required)
- › Quick module replacement
- › Steel, powder-coated
- › Suitable for doors hinged on the right or left

Connection material

- ▼ Built-in connector RC18

120403 MGB-A-PLUGCONNECTOR-RC18-120403

- ▼ Features

- › For all MGB with cable entry

- ▼ Cable glands M20x1.5



086233 EKPM20/06 086233

Function expansion

- ▼ Emergency unlocking for safety system MGB



112989 MGB-A-EMERGENCYRELEASE-112989


























- ▼ Features

- › Quick emergency unlocking
- › sealable

Instructions


























- ▼ Návod k použití – bezpečnostní systémy MGB-L1...AR-... / MGB-L2...AR-... a MGB-L1...AP-... / MGB-L2...AP-... od V3.0.0

| | Doc. no. | Version | Language | Download |
|---|----------|----------|----------|----------|
| Betriebsanleitung MGB-L1...AR-... / MGB-L2...AR-... und MGB-L1...AP-... / MGB-L2...AP-... ab V3.0.0 | 2119167 | 04-05/18 | | 3.7 MB |
| Mode d'emploi MGB-L1...AR-... / MGB-L2...AR-... et MGB-L1...AP-... / MGB-L2...AP-... à partir de V3.0.0 | 2119167 | 04-05/18 | | 3.7 MB |

| | | | | |
|---|---------|----------|---|--|
| Manual de instrucciones MGB-L1...AR.-... / MGB-L2...AR.-... y MGB-L1...AP.-... / MGB-L2...AP.-... V3.0.0 o superior | 2119167 | 04-05/18 |  |  3.7 MB |
| Návod k použití – bezpečnostní systémy MGB-L1...AR.-... / MGB-L2...AR.-... a MGB-L1...AP.-... / MGB-L2...AP.-... od V3.0.0 | 2119167 | 04-05/18 |  |  4.0 MB |
| Operating Instructions MGB-L1...AR.-... / MGB-L2...AR.-... and MGB-L1...AP.-... / MGB-L2...AP.-... from V3.0.0 | 2119167 | 04-05/18 |  |  3.7 MB |
| Istruzioni di impiego MGB-L1...AR.-... / MGB-L2...AR.-... und MGB-L1...AP.-... / MGB-L2...AP.-... da V3.0.0 | 2119167 | 04-05/18 |  |  3.7 MB |
| Handleiding MGB-L1...AR.-... / MGB-L2...AR.-... en MGB-L1...AP.-... / MGB-L2...AP.-... vanaf V3.0.0 | 2119167 | 04-05/18 |  |  3.7 MB |
| Instrukcja obsługi MGB-L1...AR.-... / MGB-L2...AR.-... i MGB-L1...AP.-... / MGB-L2...AP.-... od V3.0.0 | 2119167 | 04-05/18 |  |  4.0 MB |
| Manual de instruções MGB-L1...AR.-... / MGB-L2...AR.-... e MGB-L1...AP.-... / MGB-L2...AP.-... a partir de V3.0.0 | 2119167 | 04-05/18 |  |  3.7 MB |
| Инструкция по эксплуатации MGB-L1...AR.-... / MGB-L2...AR.-... и MGB-L1...AP.-... / MGB-L2...AP.-... с V3.0.0 | 2119167 | 04-05/18 |  |  4.2 MB |
| Návod na prevádzku Bezpečnostné systémy MGB-L1...AR.-... / MGB-L2...AR.-... a MGB-L1...AP.-... / MGB-L2...AP.-... od V3.0.0 | 2119167 | 04-05/18 |  |  4.0 MB |
| Instruktionsbok MGB-L1...AR.-... / MGB-L2...AR.-... och MGB-L1...AP.-... / MGB-L2...AP.-... fr. V3.0.0 | 2119167 | 04-05/18 |  |  3.7 MB |
| İşletim kılavuzu MGB-L1...AR.-... / MGB-L2...AR.-... ve MGB-L1...AP.-... / MGB-L2...AP.-... itibaren V3.0.0 | 2119167 | 04-05/18 |  |  4.1 MB |
| 操作指示書 安全システム MGB-L1...-AR.-... / MGB-L2...-AR.-... および MGB-L1...-AP.-... / MGB-L2...-AP.-... V3.0.0以降 | 2119167 | 04-05/18 |  |  4.1 MB |
| 使用说明书 安全系统 MGB-L1...-AR.-... / MGB-L2...-AR.-...和MGB-L1...-AP.-... / MGB-L2...-AP.-... V3.0.0以上 | 2119167 | 04-05/18 |  |  4.1 MB |







 Sicherheitsinformation (Teil der Betriebsanleitung Sicherheitssystem MGB-AR/MGB-AP) ab V3.0.0

Doc. no. Version Language Download

| | | | | |
|---|--------|----------|---|--|
| Sicherheitsinformation (Teil der Betriebsanleitung Sicherheitssystem MGB-AR/MGB-AP) ab V3.0.0 Información de seguridad (parte del manual de instrucciones Sistema de seguridad MGB-AR/MGB-AP) V3.0.0 o superior Information de sécurité (partie du mode d'emploi Système de sécurité MGB-AR/MGB-AP) à partir de V3.0.0 Informazioni sulla sicurezza (Parte delle istruzioni di impiego Sistema di sicurezza MGB-AR/MGB-AP) da V3.0.0 Säkerhetsinformation (Del av instruktionsboken Säkerhetssystem MGB-AR/MGB-AP) från V3.0.0 Safety Information (Part of the Operating Instructions Safety System MGB-AR/MGB-AP) from V3.0.0 | 123151 | 01-02/15 |       |  0.6 MB |
| Veiligheidsinformatie (Deel van de handleiding Beveiligingssysteem MGB-AR/MGB-AP) vanaf V3.0.0 | 123151 | 01-02/15 |  |  0.2 MB |
| Informação de segurança (Parte do manual de instruções Sistema de segurança MGB-AR/MGB-AP) a partir de V3.0.0 | 123151 | 01-02/15 |  |  0.2 MB |
| Bezpečnostní informace (součást návodu k použití „Bezpečnostní systém MGB-AR/MGB-AP“) od V3.0.0 | 123151 | 01-02/15 |  |  0.2 MB |
| Informacje o bezpieczeństwie (Część instrukcji obsługi System bezpieczeństwa MGB-AR/MGB-AP) od V3.0.0 | 123151 | 01-02/15 |  |  0.2 MB |
| Информация о безопасности (часть инструкции по эксплуатации Предохранительная система MGB-AR/MGB-AP) с V3.0.0 | 123151 | 01-02/15 |  |  0.3 MB |
| Bezpečnostná informácia (časť návodu na prevádzku Bezpečnostný systém MGB-AR/MGB-AP) od V3.0.0 | 123151 | 01-02/15 |  |  0.2 MB |
| Güvenlik bilgisi (İşletim kılavuzunun parçası emniyet sistemi MGB-AR/MGB-AP) V3.0.0 ve üstü | 123151 | 01-02/15 |  |  0.3 MB |
| 安全信息 (安全系统 MGB-AR/MGB-AP使用说明书的组成部分) V3.0.0以上 | 123151 | 01-02/15 |  |  0.3 MB |
| 安全情報 MGB-AR/MGB-AP | 123151 | 01-02/15 |  |  0.6 MB |

Declaration of conformity

EU-Konformitätserklärung

| | Doc. no. | Version | Language | Download |
|--|----------|----------|---|--|
| EU-Konformitätserklärung Declaración UE de conformidad Déclaration UE de conformité Dichiarazione di conformità EU declaration of conformity | 2123150 | 08-01/17 |      |  0.3 MB |