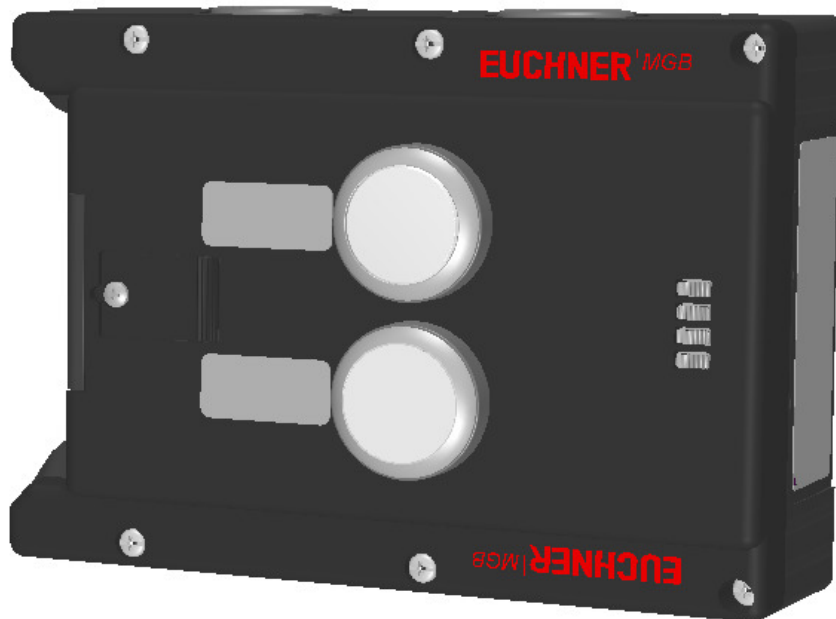


## ITEM 121088 MGB-L1-ARA-AL2A1-M-L-121088

Description	Technical data	Accessories	Downloads
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### Features

- › Guard locking with guard lock monitoring
- › Can be connected in series with other AR devices (e.g. CES-AR and CET-AR)
- › 2 pushbuttons (illuminated)
- › With lens set, 6 pcs.
- › Incl. adhesive labels
- › With cable entry
- › Unicode

### Guard locking type

**MGB-** The locking arm is held in the locked position by spring force and is  
**L1...** unlocked by solenoid force (closed-circuit current principle, mechanically locked).

### 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.

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### 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

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### Pushbutton

- S2** 1 NO contact, illuminated
- S3** 1 NO contact, illuminated

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### Lens set

The color of the pushbutton can be selected using the lens set included (6 colors). Item no.: 120378 (see Accessories)

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### 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	$1 \times 10^6$
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	Closed-circuit current principle
Locking force $F_{Zh}$	2000 N

## Electrical connection ratings

Utilization category according to EN 60947-5-2	DC-13	24V 200mA <sup>[1]</sup>
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 <sup>2</sup>
(Rigid/flexible) with cable end sleeve according to DIN 46 228/1		0,25 ... 1,5 mm <sup>2</sup>
(Rigid/flexible) with cable end sleeve with collar according to DIN 46 228/1		0,25 ... 0,75 mm <sup>2</sup>
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
<b>Power supply <math>U_B</math></b>		
Operating voltage DC	$U_B$	24 V DC -15% ... 10% <sup>[2]</sup>
Current consumption	$I_{UB}$	max.80 mA <sup>[3]</sup>
<b>Power supply <math>U_A</math></b>		
Operating voltage DC	$U_A$	24 V DC -15% ... 10% <sup>[4]</sup>
Current consumption	$I_{UA}$	max.375 mA <sup>[5]</sup>
<b>Safety outputs FO1A, FO1B</b>		
Test pulses		max.1 ms
Test-pulse interval		min.100 ms
Type of output		Semiconductor outputs, p-switching, short circuit-proof
Output voltage		
$U_{FO1A} / U_{FO1B}$ HIGH		$U_B - 2V \dots U_B$ V DC <sup>[6]</sup>
$U_{FO1A} / U_{FO1B}$ LOW		0 ... 1 V DC
Output current		
Per safety output FO1A / FO1B		1 ... 200 mA
<b>Monitoring outputs OD, OT, OL, OI</b>		
Type of output		Semiconductor outputs, p-switching, short circuit-proof
Output voltage		$U_A - 2V \dots U_A$ V DC <sup>[7]</sup>
Output current		max.50 mA
<b>Controls and indicators</b>		
Switching voltage		$U_A$ V
Switching current		1 ... 10 mA
Breaking capacity		max.0,25 W

Power supply LED	24 V DC
	<b>Solenoid control input IMP1, IMP2, IMM</b>
Test pulses	max.5 ms
Test-pulse interval	min.100 ms

## Controls and indicators

Assignment diagram	L1
Control/indicator	
	<b>Position 2</b>
Version	Illuminated push buttons
Special features	
Color	
Switching element	1NO
Control/indicator	
	<b>Position 3</b>
Version	Illuminated push buttons
Special features	
Color	
Switching element	1NO

## Miscellaneous

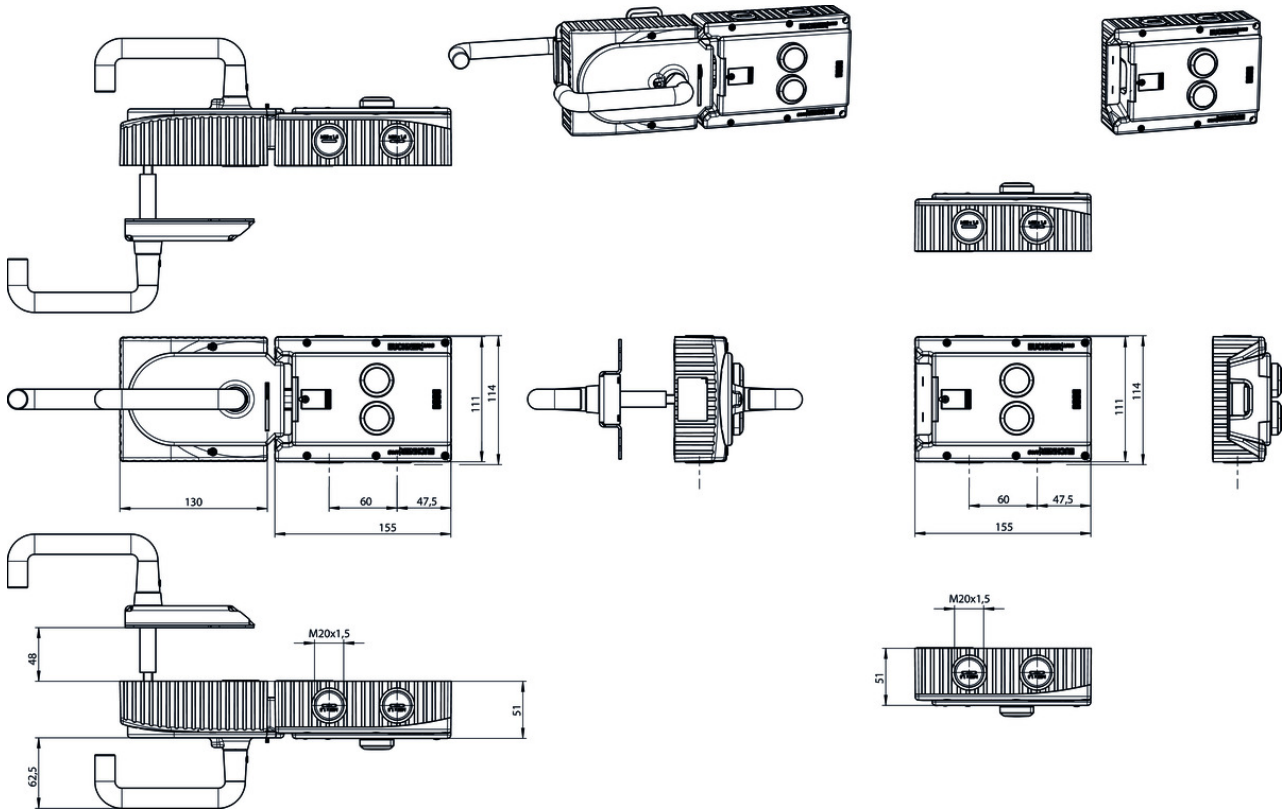
Additional feature	Incl. cover set ID. No. 120344
Product version number	V3.0.3
Slide-in label	2 pcs. without marking

## Reliability values acc. to EN ISO 13849-1

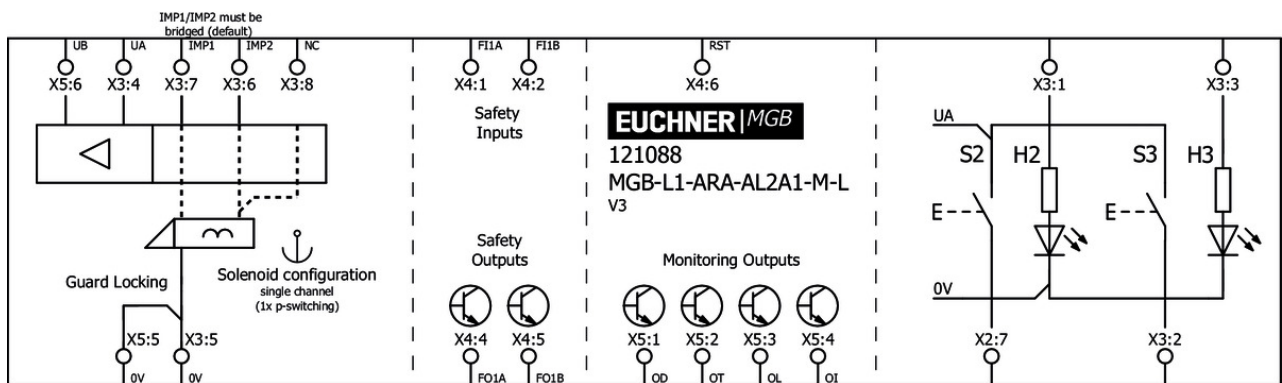
	<b>Monitoring of guard locking and the safety guard position</b>
Category	4
Performance Level	PL e
PFH <sub>D</sub>	$3.7 \times 10^{-9}$
	<b>Control of the guard locking</b>
Category	4
Performance Level	PL e
PFH <sub>D</sub>	$2.8 \times 10^{-9}$
Mission time	20 y

- [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 6 colors



**120378** AY-SET-LNS-0002-120378

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▼ Lens set labeled



**120377** AY-SET-LNS-SY01-120377

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**125359** AY-SET-LNS-SY02-125359

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**126158** AY-SET-LNS-SY03-126158

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▼ 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

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## Connection material

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▼ 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

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## Mounting accessories

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▼ 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

## 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