

## ITEM 156858 MGB-L1C-ARA-R-156858

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)
- › With control module MGB-C
- › Emergency stop according to ISO 13850
- › 5 pushbuttons (illuminated)
- › Incl. adhesive labels
- › With plug connector RC26
- › 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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## Emergency stop device

- S1** 2 positively driven NC contacts, emergency stop with turn-to-reset, not illuminated
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## Pushbutton

- S10** 1 NO contact, illuminated
  - S11** 1 NO contact, illuminated
  - S12** 1 NO contact, illuminated
  - S14** 1 NO contact, illuminated
  - S15** 1 NO contact, illuminated
- 

## 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 1,4 kg
Ambient temperature	
At $U_B = 24V DC$	-20 ... 55 °C
Degree of protection	IP65
Mechanical life	
In case of use as door stop, and 1 Joule impact energy	$1 \times 10^6$ $0,1 \times 10^6$
Installation position	Door hinge DIN right
Switching frequency	0,25 Hz

Connection	Plug connector RC26 [1]
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 [2]
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
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% [3]
Current consumption	$I_{UB}$	max.80 mA [4]
<b>Power supply <math>U_A</math></b>		
Operating voltage DC	$U_A$	24 V DC -15% ... 10% [5]
Current consumption	$I_{UA}$	max.375 mA [6]
<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 [7]
$U_{FO1A} / U_{FO1B}$ 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 [8]
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>Emergency stop</b>
Switching voltage	5 ... 24 V
Switching current	1 ... 100 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	C2
Assignment diagram	L0
Control/indicator	
	<b>Position 10</b>
Version	Illuminated push buttons
Special features	
Color	
Switching element	1NO
Slide-in label	
Control/indicator	
	<b>Position 11</b>
Version	Illuminated push buttons
Special features	
Color	
Switching element	1NO
Slide-in label	
Control/indicator	
	<b>Position 12</b>
Version	Illuminated push buttons
Special features	
Color	
Switching element	1NO
Slide-in label	
Control/indicator	
	<b>Position 13</b>
Version	Emergency stop
Special features	
Color	
Switching element	2 pos. driven NC
Slide-in label	Adhesive label D40mm
Control/indicator	
	<b>Position 14</b>
Version	Illuminated push buttons

Special features	
Color	
Switching element	1NO
Slide-in label	
Control/indicator	
	<b>Position 15</b>
Version	Illuminated push buttons
Special features	
Color	
Switching element	1NO
Slide-in label	

### Miscellaneous

Additional feature	Incl. cover set ID. No. 120344
Product version number	V3.0.3
Slide-in label	5 pc. 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>	$2.8 \times 10^{-9}$
	<b>Emergency stop</b>
B10 <sub>D</sub>	
Emergency stop	$0,065 \times 10^6$
<hr/>	
Mission time	20 y

[1] X6

[2] Caution: outputs must be protected with a free-wheeling diode in case of inductive loads.

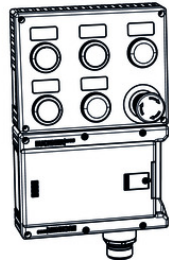
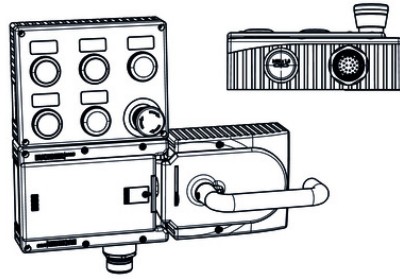
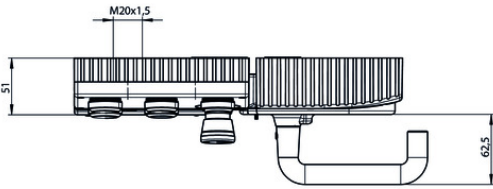
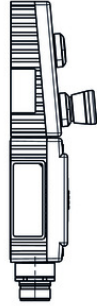
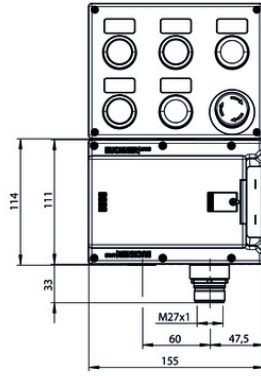
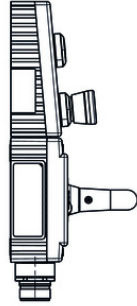
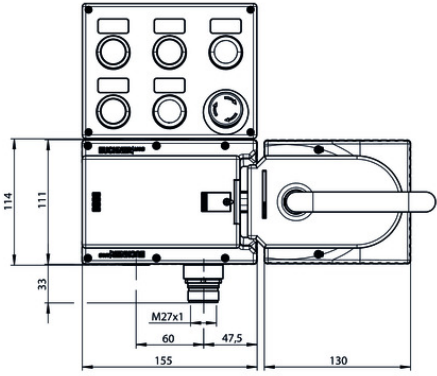
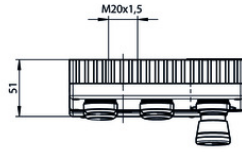
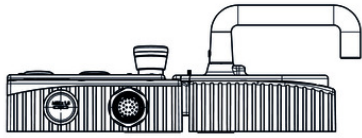
[3, 5] (Reverse polarity protected, regulated, residual ripple <5%, PELV)

[4] (no load on outputs)

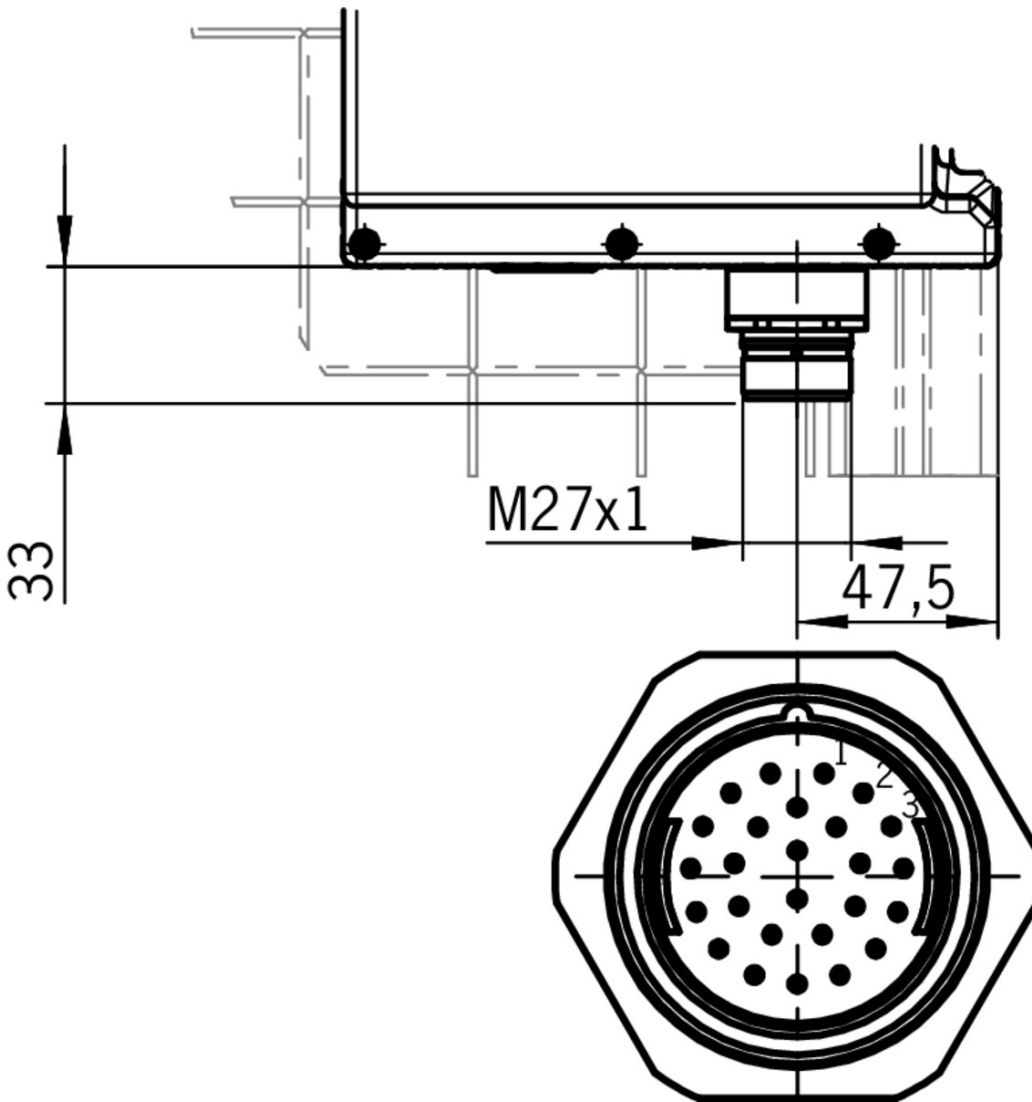
[6] (With energized guard locking solenoid and unloaded outputs OD, OT, OL, OI, +20 °C, 24V)

[7, 8] Value at a switching current of 50mA without taking into account the cable lengths

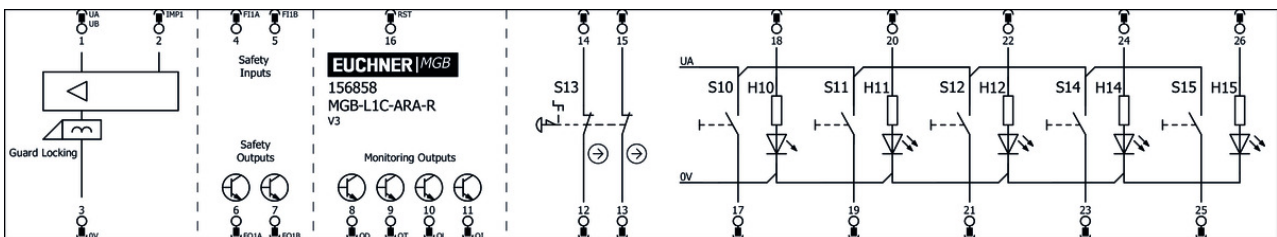
# Dimension drawing



## Dimension drawing



## Plug connector RC26



## Mounting accessories

- ✓ Mounting plate for evaluation module-control module combination



### 110072 MGB-A-MOUNTINGPLATE-LC-110072

#### ✓ Features

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

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## Miscellaneous accessories

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▼ Lens set 5 colors



**120344** AY-SET-LNS-0001-120344

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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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▼ Lens set 6 colors



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

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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.
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▼ Lens set, three colors



**158307** AY-SET-LNS-SY04-158307

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## Connection material

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▼ Connection cable with plug connector RC26, 26-pin, 1.1m



**114976** C-M27F26-PU01,1-MA-114976

▼ Features

- › M27 female plug (RC26), 26-pin
- › Straight plug connector
- › TPE-U cable
- › Cable length 1.1 m
- › With flying lead



- › Cores numbered, black
- 

- ▼ Connection cable with plug connector RC26, 26-pin, 2m



**111997** C-M27F26-PU02,0-MA-111997

▼ Features

- › M27 female plug (RC26), 26-pin
  - › Straight plug connector
  - › TPE-U cable
  - › Cable length 2 m
  - › With flying lead
  - › Cores numbered, black
- 

- ▼ Connection cable with plug connector RC26, 26-pin, 5m



**111998** C-M27F26-PU05,0-MA-111998

▼ Features

- › M27 female plug (RC26), 26-pin
  - › Straight plug connector
  - › TPE-U cable
  - › Cable length 5 m
  - › With flying lead
  - › Cores numbered, black
- 

- ▼ Connection cable with plug connector RC26, 26-pin, 10m



**111999** C-M27F26-PU10,0-MA-111999

▼ Features

- › M27 female plug (RC26), 26-pin
  - › Straight plug connector
  - › TPE-U cable
  - › Cable length 10 m
  - › With flying lead
  - › Cores numbered, black
- 

- ▼ Connection cable with plug connector RC26, 26-pin, 20m



**112912** C-M27F26-PU20,0-MA-112912

▼ Features

- › M27 female plug (RC26), 26-pin
  - › Straight plug connector
  - › TPE-U cable
  - › Cable length 20 m
  - › With flying lead
  - › Cores numbered, black
- 

- ▼ Connection cable with plug connector RC26, 26-pin, 35m



**123829** C-M27F26-PU35,0-MA-123829

▼ Features

- › M27 female plug (RC26), 26-pin
- › Straight plug connector

- › TPE-U cable
- › Cable length 35 m
- › With flying lead
- › Cores numbered, black

☑ Connection cable with plug connector RC26, 26-pin, 50m



**123877** C-M27F26-PU50,0-MA-123877

☑ Features

- › M27 female plug (RC26), 26-pin
- › Straight plug connector
- › TPE-U cable
- › Cable length 50 m
- › With flying lead
- › Cores numbered, black

## 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 Safety Information (Part of the Operating Instructions Safety System MGB-AR/MGB-AP) from 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	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	2123150	08-01/17		 0.3 MB
EU declaration of conformity				
Declaración UE de conformidad				
Déclaration UE de conformité				
Dichiarazione di conformità			