

# MGB-L1-ARA-AM3A1-M-R-121234 (ORDER NO. 121234)

Locking module MGB-L1-ARA..., 2 push buttons and emergency stop, incl. label carrier

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



## Description

## Guard locking type

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

#### Door stop

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 into the evaluation module
- OL Guard locking solenoid in locked position
- OI Diagnostics; there is a fault

### **Emergency stop device**

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

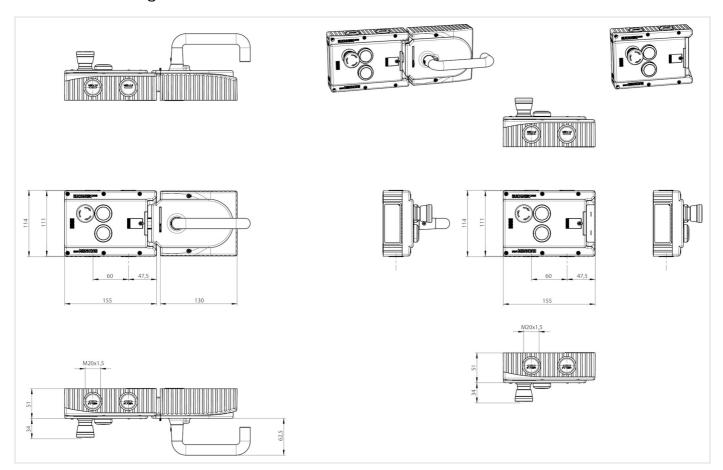
### Pushbutton

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

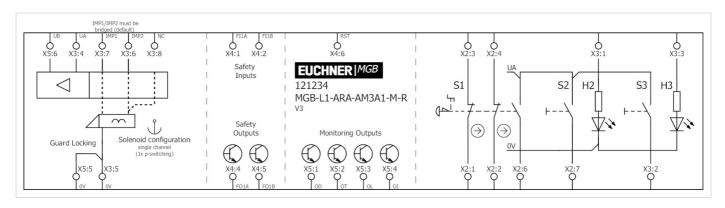
## Lens set

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

# Dimension drawing



# Cable entry



## Technical data



Mechanical values and environment

	mate	

Housing	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 x 10 <sup>6</sup>
In case of use as door stop, and 1 Joule impact energy	$0.1 \times 10^6$
Installation orientation	Door hinge DIN right
Switching frequency	0,25 Hz
Connection	Cable entries M20x1.5
Guard locking principle	Closed-circuit current principle
Locking force F <sub>Zh</sub>	2000 N

# Electrical connection ratings

Utilization category acc. to EN 60947-5-2

Utilization category acc. to EN 60947-5-2	
DC-13	24V 200mA
	(Caution: outputs must be protected with a free-wheeling diode in case of inductive loads.)
Rated insulation voltage U <sub>i</sub>	30 V
Rated impulse withstand voltage U <sub>imp</sub>	1,5 kV
Degree of contamination (external, according to EN 60947-1)	3
Connection cross-section	
(Rigid/flexible) with cable end sleeve according to DIN 46 228/1	0,25 1,5 mm²
(Rigid/flexible) with cable end sleeve with collar according to DIN 46 228/1	0,25 0,75 mm²
(Rigid/flexible)	0,13 1,5 mm <sup>2</sup> ((AWG 24 AWG 16))
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 <sub>B</sub>
Operating voltage DC	
$U_B$	24 V DC -15% 10% ((Reverse polarity protected, regulated, residual ripple <5%, PELV))
Current consumption	
$I_{UB}$	max.80 mA ((no load on outputs))
	Power supply U <sub>A</sub>
Operating voltage DC	
UA	24 V DC -15% 10% ((Reverse polarity protected, regulated, residual ripple <5%, PELV))
Current consumption	
I <sub>UA</sub>	max.375 mA

		((With energized guard locking solenoid and unloaded outputs OD, OT, OL, OI, $+20~^{\circ}\text{C}$ , 24V))
		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 <sub>FO1A</sub> /U <sub>FO1B</sub> HIGH	UB-2V UB V DC (Value at a switching current of 50mA without taking into account the cable lengths)
	U <sub>FO1A</sub> /U <sub>FO1B</sub> 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		UA-2V UA V DC (Value at a switching current of 50mA without taking into account the cable lengths)
Output current		max.50 mA
		Controls and indicators
Switching voltage		U <sub>A</sub> 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
	Position 1
Version	Emergency stop
Slide-in label	
Special features	With auxiliary contact
Color	
Switching element	2 pos. driven NC + 1NO
	Position 2
Version	Illuminated push buttons
Slide-in label	
Special features	
Color	
Switching element	1NO
	Position 3
Version	Illuminated push buttons
Slide-in label	
Special features	
Color	
Switching element	1NO
Other	
Additional feature	Incl. cover set ID. No. 120344
Product version number	V4.0.0

# Reliability values according to EN ISO 13849-1

		Emergency stop
B10 <sub>D</sub>		
	Emergency stop	0,13 x 10 <sup>6</sup>
		Control of the guard locking
Category		4
Performance Level		PL e
PFH <sub>D</sub>		2.8 x 10 <sup>-9</sup>
		Monitoring of guard locking and the safety guard position
Category		4
Performance Level		PL e
PFH <sub>D</sub>		3.7 x 10 <sup>-9</sup>
Mission time		20 y

# Accessories

## Connection material

120403 MGB-A-PLUGCONNECTOR-RC18-120403 ▶ For all MGB with cable entry

## Cable glands M20x1.5, cable Ø 6-12 mm



**086233** EKPM20/06 086233

## Function expansion

# Emergency unlocking for safety system MGB



112989 MGB-A-EMERGENCYRELEASE-112989

- ▶ Quick emergency release
- ▶ sealable

Miscellaneous accessories

### Lens set 5 colors



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



**163284** AY-SET-LNS-0003-163284

### Lens set 6 colors



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

### Lens set labeled



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



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



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



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



**160049** AY-SET-LNS-SY05-160049

## Mounting accessories

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



**109490** MGB-A-MOUNTINGPLATE-L-109490

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

## Contacts

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