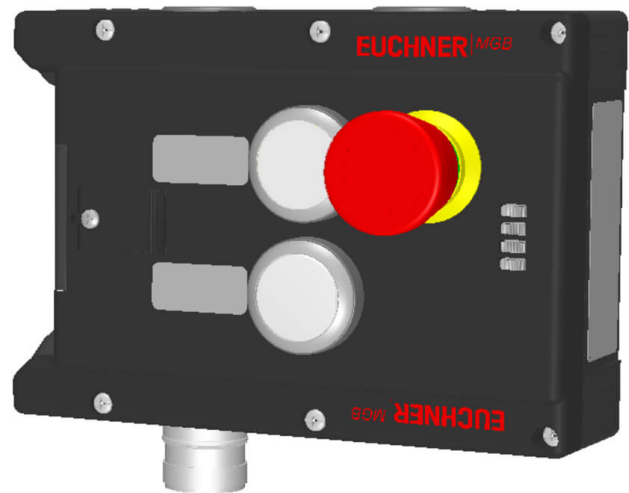


## MGB-L1-ARA-AM5A1-S1-L-121217 (ORDER NO. 121217)

Locking module MGB-L1-ARA..., (guard locking by spring force) with 2 push buttons, emergency stop, incl. label carrier, RC18

- ▶ 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.
- ▶ incl. adhesive labels
- ▶ With plug connector RC18
- ▶ Unicode



### Description

### Guard locking type

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

OT Bolt tongue inserted into the evaluation module  
OI Diagnostics; there is a fault

### Emergency stop device

S1 2 positively driven contacts, emergency stop with turn-to-reset, not illuminated

### Pushbutton

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

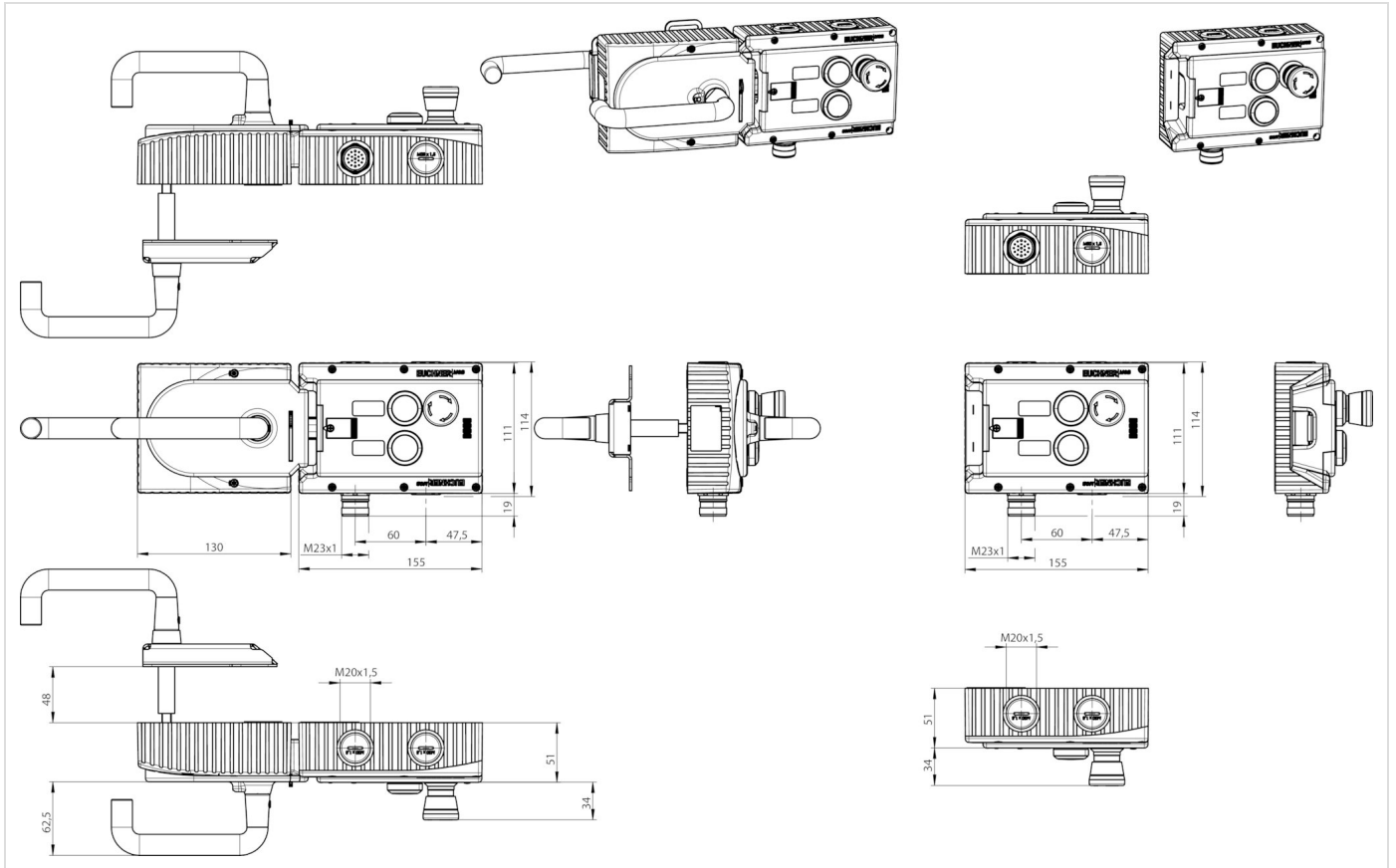
## Lens set

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

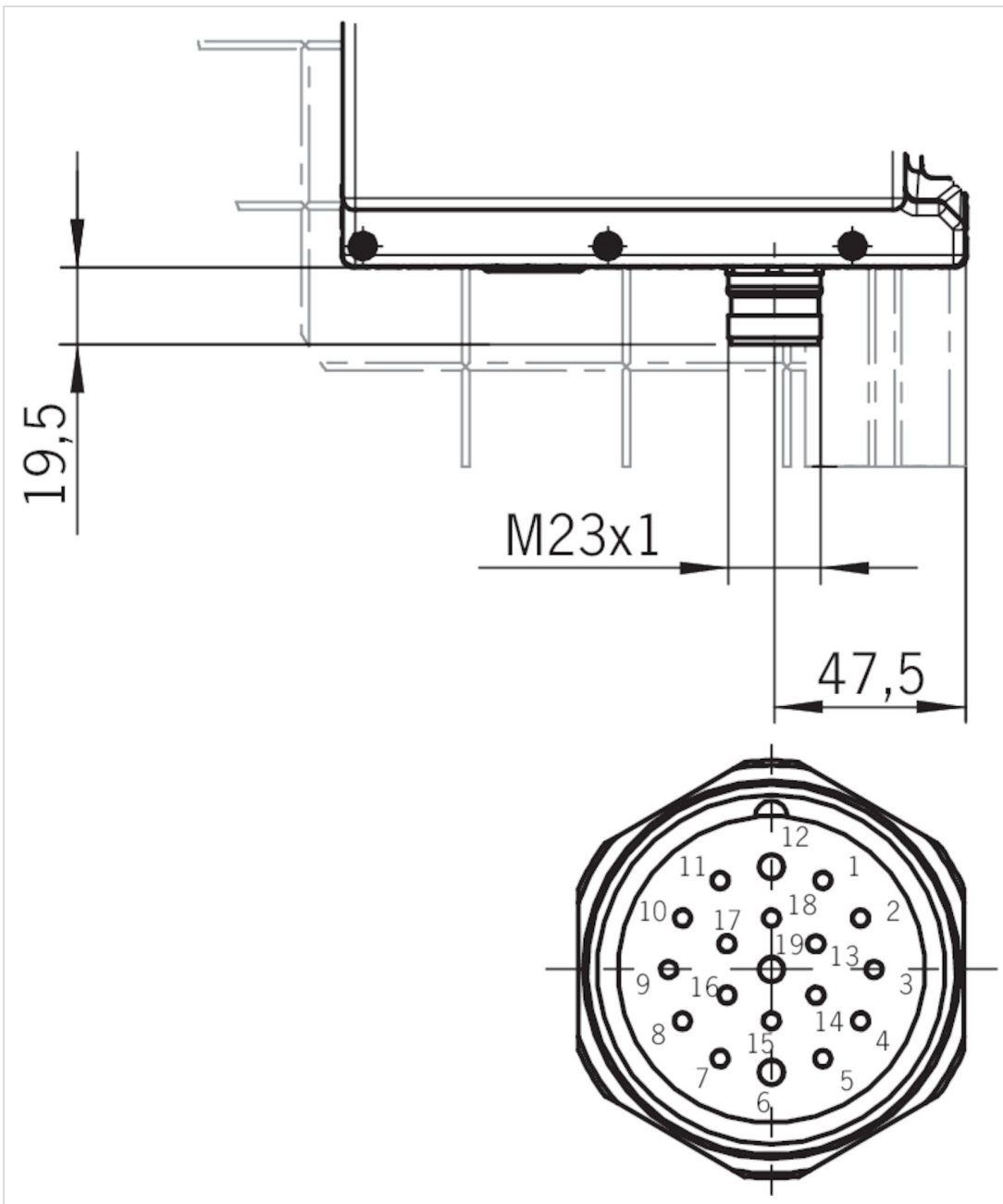
## Adhesive labels

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.

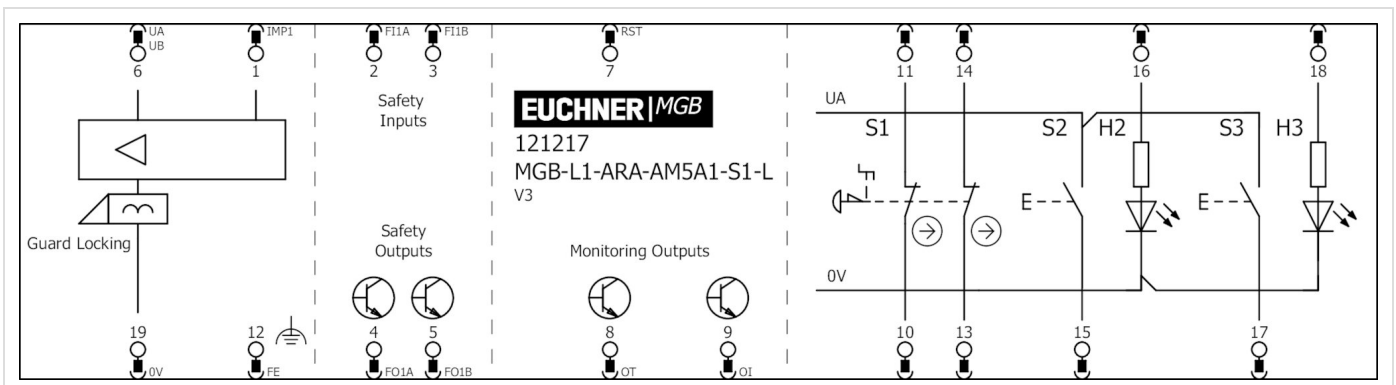
## Dimension drawing



## Dimension drawing



Plug connector RC18



Technical data

Approvals



## Mechanical values and environment

Housing material	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 x 10 <sup>6</sup>
Installation orientation		Door hinge DIN left
Switching frequency		0,25 Hz
Connection		Plug connector RC18 (X6)
Guard locking principle		Closed-circuit current principle
Locking force $F_{Zh}$		2000 N

## Electrical connection ratings

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 $U_i$		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>Solenoid control input IMP1, IMP2, IMM</b>
Test pulses		max.5 ms
Test-pulse interval		min.100 ms
		<b>Power supply <math>U_B</math></b>
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))
		<b>Power supply <math>U_A</math></b>
Operating voltage DC	$U_A$	24 V DC -15% ... 10% ((Reverse polarity protected, regulated, residual ripple <5%, PELV))
Current consumption	$I_{UA}$	max.375 mA ((With energized guard locking solenoid and unloaded outputs OD, OT, OL, OI, +20 °C, 24V))

<b>Safety outputs F01A, F01B</b>	
Test pulses	max.1 ms
Test-pulse interval	min.100 ms
Type of output	Semiconductor outputs, p-switching, short circuit-proof
Output voltage	
	$U_{F01A} / U_{F01B}$ LOW 0 ... 1 V DC
	$U_{F01A} / U_{F01B}$ HIGH UB-2V ... UB V DC (Value at a switching current of 50mA without taking into account the cable lengths)
Output current	
	Per safety output F01A / F01B 1 ... 200 mA
<b>Monitoring outputs OD, OT, OL, OI</b>	
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
<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

## Controls and indicators

Assignment diagram	L1
<b>Position 1</b>	
Version	Emergency stop
Slide-in label	
Special features	
Color	
Switching element	2 pos. driven NC

<b>Position 2</b>	
Version	Illuminated push buttons
Slide-in label	
Special features	
Color	
Switching element	1NO

<b>Position 3</b>	
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
Slide-in label	2 pcs. without marking

## Reliability values according 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 x 10 <sup>-9</sup>
<b>Control of the guard locking</b>	
Category	4
Performance Level	PL e
PFH <sub>D</sub>	2.8 x 10 <sup>-9</sup>
<b>Emergency stop</b>	
B10 <sub>D</sub>	Emergency stop 0,13 x 10 <sup>6</sup>
Mission time	20 y

## Accessories

### Connection material

Connection cable with plug connector M23 with option C1825, 1.5m, straight



092761  
C-M23E1Q-1QXDIEPI101 5-MA-092761

- ▶ M23 plug connector, 18-pin + PE
- ▶ Straight plug connector



C-M23F19-19XDIFPU03,0-MA-092816

- ▶ Straight plug connector
- ▶ PUR cable
- ▶ Cable length 1.5 m
- ▶ With flying lead
- ▶ Cores color-coded

### Connection cable with plug connector M23 with option C1825, 3m, straight

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092816  
C-M23F19-19XDIFPU03,0-MA-092816

- ▶ M23 plug connector, 18-pin + PE
- ▶ Straight plug connector
- ▶ PUR cable
- ▶ Cable length 3 m
- ▶ With flying lead
- ▶ Cores color-coded

### Connection cable with plug connector M23 with option C1825, 6m, straight

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077014  
C-M23F19-19XDIFPU06,0-MA-077014

- ▶ M23 plug connector, 18-pin + PE
- ▶ Straight plug connector
- ▶ PUR cable
- ▶ Cable length 6 m
- ▶ With flying lead
- ▶ Cores color-coded

### Connection cable with plug connector M23 with option C1825, 8m, straight

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077015  
C-M23F19-19XDIFPU08,0-MA-077015

- ▶ M23 plug connector, 18-pin + PE
- ▶ Straight plug connector
- ▶ PUR cable
- ▶ Cable length 8 m
- ▶ With flying lead
- ▶ Cores color-coded

### Connection cable with plug connector M23 with option C1825, 10m, straight

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092898  
C-M23F19-19XDIFPU10,0-MA-092898

- ▶ M23 plug connector, 18-pin + PE
- ▶ Straight plug connector
- ▶ PUR cable
- ▶ Cable length 10 m
- ▶ With flying lead
- ▶ Cores color-coded

### Connection cable with plug connector M23 with option C1825, 15m, straight

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077016  
C-M23F19-19XDIFPU15,0-MA-077016

- ▶ M23 plug connector, 18-pin + PE
- ▶ Straight plug connector
- ▶ PUR cable
- ▶ Cable length 15 m
- ▶ With flying lead
- ▶ Cores color-coded

### Connection cable with plug connector M23 with option C1825, 25m, straight

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092727  
C-M23F19-19XDIFPU25,0-MA-092727

- ▶ M23 plug connector, 18-pin + PE
- ▶ Straight plug connector
- ▶ PUR cable
- ▶ Cable length 25 m
- ▶ With flying lead
- ▶ Cores color-coded

### Connection cable with plug connector M23 with option C1825, 30m, straight

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095993  
C-M23F19-19XDIFPU30,0-MA-095993

- ▶ M23 plug connector, 18-pin + PE
- ▶ Straight plug connector
- ▶ PUR cable
- ▶ Cable length 30 m
- ▶ With flying lead

- ▶ Cores color-coded

## Connection cable with plug connector M23 with option C1825, 40m, straight

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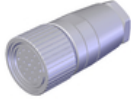


**102490**  
C-M23F19-19XDIFPU40,0-MA-102490

- ▶ M23 plug connector, 18-pin + PE
- ▶ Straight plug connector
- ▶ PUR cable
- ▶ Cable length 40 m
- ▶ With flying lead
- ▶ Cores color-coded

## Female plug RC18 straight with option C1825

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**077025**  
RC18EF-C1825

- ▶ Plug connector M23, straight
- ▶ Number of pins: 19-pin with shield spring

## Replacement crimp contacts for female connector RC18 with option C1825

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**094310**  
CRIMPKONTAKT BUCHSE RCF-C1825

- ▶ 19 crimp sockets
- ▶ Conductor cross-section 16 x 0.25 - 0.5 mm<sup>2</sup> and 3 x 0.75 - 1 mm<sup>2</sup>
- ▶ For plug connector RC18..C1825

## Function expansion

### Emergency unlocking for safety system MGB

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**112989**  
MGB-A-EMERGENCYRELEASE-112989

- ▶ Quick emergency release
- ▶ sealable

## Miscellaneous accessories

### Adhesive labels

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**114529**  
MGB-A-PLATESET-NN01-114529

- ▶ Adhesive labels suitable for MGB evaluation modules, bus modules and control modules
- ▶ silver, blank
- ▶ Packaging unit = 10 pcs.

## Lens set 5 colors

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



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

## Lens set 6 colors

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

## Lens set labeled

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**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.-...

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**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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