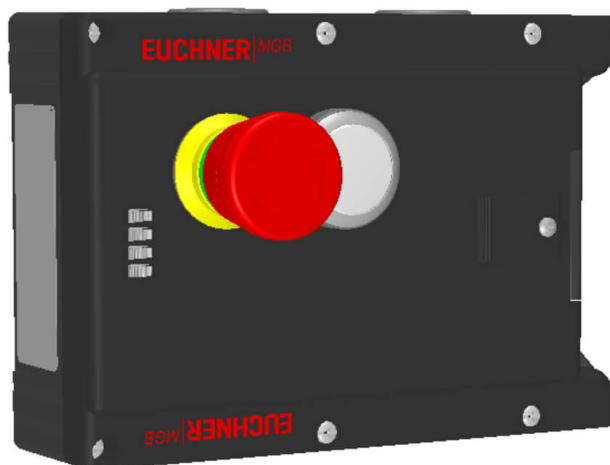


## MGB-L1-ARA-AL3A1-M-R-121130 (ORDER NO. 121130)

Locking module MGB-L1-ARA..., (guard locking by spring force) with 1 push button, emergency stop

- ▶ 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
- ▶ 1 pushbuttons (illuminated)
- ▶ With lens set, 6 pcs.
- ▶ With cable entry
- ▶ 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

- 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

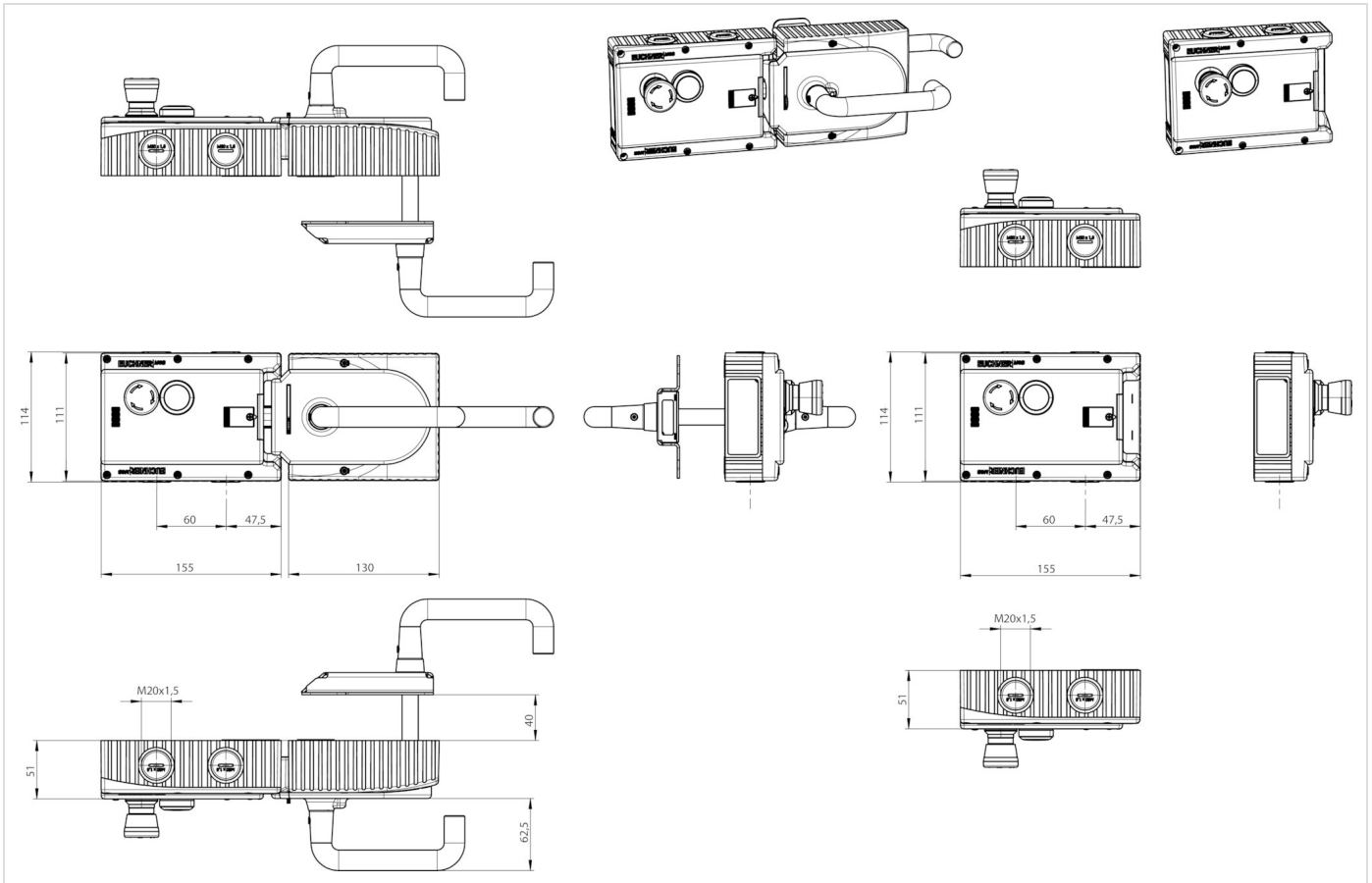
#### Pushbutton

S2 1 NO contact, illuminated

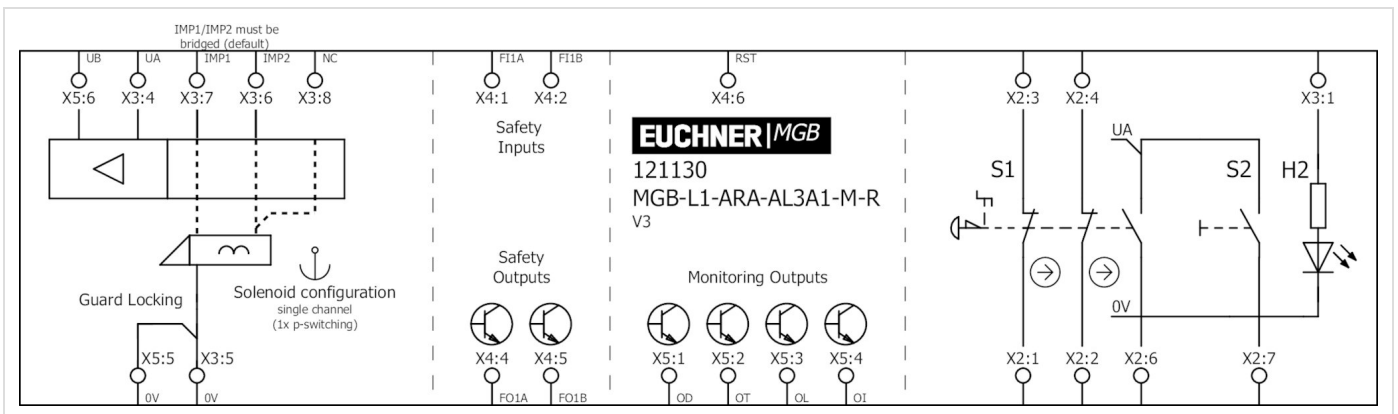
## Lens set

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

### 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 right
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 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
Connection cross-section	(Rigid/flexible)	0,13 ... 1,5 mm <sup>2</sup> ((AWG 24 ... AWG 16))
	(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>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%

$U_A$  24 V DC  $\pm 10\%$  ...  $10\%$

((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))

#### 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

$U_{FO1A} / U_{FO1B}$  HIGH  $U_B - 2V \dots U_B$  V DC  
(Value at a switching current of 50mA without taking into account the cable  
lengths)

$U_{FO1A} / U_{FO1B}$  LOW 0 ... 1 V DC

Output current

Per safety output FO1A / FO1B 1 ... 200 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

#### Monitoring outputs OD, OT, OL, OI

Type of output

Semiconductor outputs, p-switching, short circuit-proof

Output voltage

$U_A - 2V \dots U_A$  V DC  
(Value at a switching current of 50mA without taking into account the cable  
lengths)

Output current

max.50 mA

## Controls and indicators

Assignment diagram	L1
<b>Position 1</b>	
Version	Emergency stop
Slide-in label	
Special features	With auxiliary contact
Color	
Switching element	2 pos. driven NC + 1NO

<b>Position 2</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

### Reliability values according to EN ISO 13849-1

<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>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>Emergency stop</b>	
B10 <sub>D</sub>	Emergency stop 0,13 x 10 <sup>6</sup>
Mission time	20 y

### Accessories

#### Connection material

## Built-in connector RC18

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**120403**  
MGB-A-PLUGCONNECTOR-RC18-  
120403

▶ For all MGB with cable entry

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

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**086233**  
EKPM20/06 086233

## Function expansion

### Emergency unlocking for safety system MGB

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

▶ Quick emergency release  
▶ sealable

## Miscellaneous accessories

## Lens set 5 colors

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

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

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## Lens set 6 colors

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

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## Lens set labeled

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

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

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## 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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