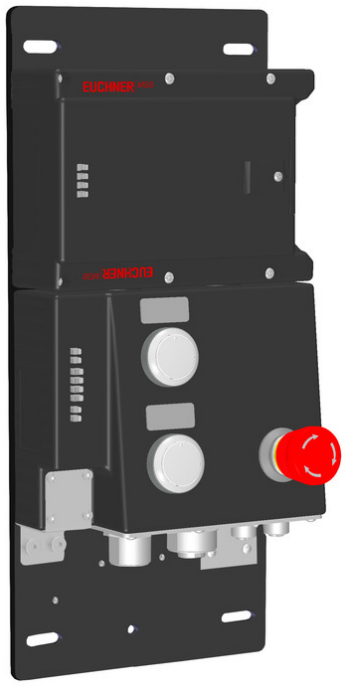
ITEM 121859 MGB-L2B-PNA-R-121859

Description | Technical data | Accessories | Downloads



Features

- Guard locking with guard lock monitoring
- Emergency stop according to ISO 13850, illuminated
- 2 illuminated pushbuttons
- Including adhesive labels
- Connection via 7/8" and M12 plug
- Pre-assembled on mounting plates
- Integrated Profinet RT switch
- Unicode

Profinet connection

7/8" plugs according to ANSI/B93.55M-1981 and M12 plugs (d-coded) according to IEC 61076-2-101

Profinet RT switch

Point-to-point topology network structure due to integrated RT switch.

Flexible usage as interlocking or guard locking

By means of the corresponding evaluation of the safe device data by the control system, usage can be either as interlocking or guard locking (with or without

monitoring).

Illuminated emergency stop

Emergency stop with illumination that can be controlled as required.

Approvals

Mechanical values and environment

Housing material	Reinforced plastic, die-cast zinc nickel-plated, stainless steel
Weight	
Net	3,1 kg
Ambient temperature	
At U_B = 24V DC	-20 ... 55 °C
Degree of protection	IP54
Resilience to vibration	In accordance with EN 60947-5-3
Mechanical life	
	1×10^6
In case of use as door stop, and 1 Joule impact energy	$0{,}1 \times 10^6$
Installation position	Door hinge DIN right
Reaction time	
Emergency stop / machine stop	Switch-off timemax.250 ms [1]
Door position	Switch-off timemax.550 ms [2]
Bolt position	Switch-off timemax.550 ms [3]
Guard locking	Switch-off timemax.550 ms [4]
Switching frequency	0,25 Hz
Connection	
	7/8" Power [5]
	7/8" Power [6]
Acc. to IEC 61076-2-101, Profinet I/O cable, at least cat. 5e	M12 D-coded, screened [7]
Acc. to IEC 61076-2-101, Profinet I/O cable, at least cat. 5e	M12 D-coded, screened [8]
Guard locking principle	Open-circuit current principle
Locking force F_{Zh}	2000 N

Electrical connection ratings

Current consumption	max.500 mA
Rated insulation voltage U_i	75 V

Rated impulse withstand voltage U_{imp}	0,5 kV
Maximum feed-in current in the connection block	
X1, X2	max.4000 mA
EMC protection requirements	In accordance with EN 61000-4 and EN 61326-3-1
Degree of contamination (external, according to EN 60947-1)	3
Connecting cable	
Ethernet	Profinet I/O cable, at least cat. 5e
Safety class	III
Transponder coding	Unicode
	Power supply X1
Operating voltage DC	
L1	24 V DC -15% ... 10% [9]
Auxiliary voltage DC	
L2	24 V DC -15% ... +10% [10]
Fusing	
external	Slow blowmin.1 A
	Power supply X2
Operating voltage DC	
L1	24 V DC -15% ... 10% [11]
Auxiliary voltage DC	
L2	24 V DC -15% ... +10% [12]

Interface, bus

Data interface	
Ethernet	
Data protocol	
Bus protocol	Profinet (IEC 61158 type 10)
Safety protocol	Profisafe (IEC 61784-3-3)

Operating distance

Assured switch-off distance S_{ar}	
Door position	max.65 mm

Controls and indicators

Assignment diagram	B1
Assignment diagram	L0
Control/indicator	
	Position 90
Version	Illuminated push buttons
Special features	

Color	
Switching element	1NO
Slide-in label	
Control/indicator	
	Position 93
Version	Emergency stop illuminated
Special features	
Color	
Switching element	2 pos. driven NC
Slide-in label	
Control/indicator	
	Position 95
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	V3.30.10
Slide-in label	2 pcs. without marking

Reliability values acc. to EN ISO 13849-1

	Monitoring of guard locking and the safety guard position
Category	4
Performance Level	PL e
PFH_D	4.07×10^{-8} **[13]**
Diagnostic Coverage (DC)	99
	Emergency stop
$B10_D$	
Emergency stop	0.1×10^{6}
	Emergency-stop evaluation
Category	4
Performance Level	PL e
PFH_D	4.1×10^{-8}

Safety Integrity Level	SIL 3 (EN 62061:2005)
Mission time	20

[1, 2, 3, 4] The reaction time is the max. time between the change in the input status and the deletion of the corresponding bit in the bus protocol.

[5] X1 (The document PROFINET "Cabling and Interconnection Technology" from the PNO aids in the correct selection of wiring.)

[6] X2 (The document PROFINET "Cabling and Interconnection Technology" from the PNO aids in the correct selection of wiring.)

[7] X3 (The document PROFINET "Cabling and Interconnection Technology" from the PNO aids in the correct selection of wiring.)

[8] X4 (The document PROFINET "Cabling and Interconnection Technology" from the PNO aids in the correct selection of wiring.)

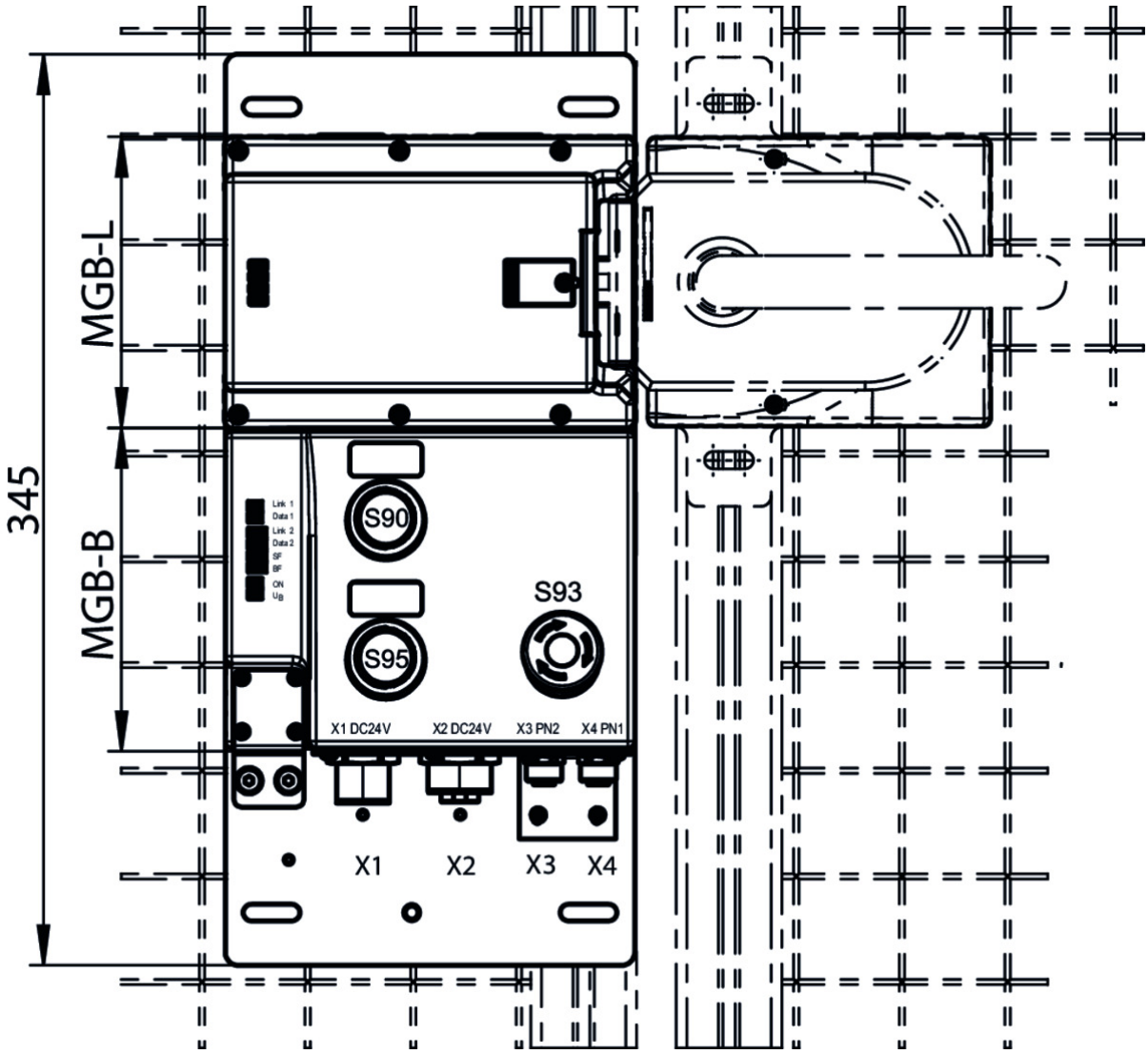
[9] (Reverse polarity protected, regulated, residual ripple <5%, PELV)

[10] The auxiliary voltage is not required for the MGB system

[11, 12] For looping through for connected devices

[13] Fixed failure rate without consideration of faults in wearing parts.

Dimension drawing



Miscellaneous accessories

Lens set 5 colors

120344 AY-SET-LNS-0001-120344

Lens set labeled

125359 AY-SET-LNS-SY02-125359

120377 AY-SET-LNS-SY01-120377

126158 AY-SET-LNS-SY03-126158

Lens set 6 colors

120378 AY-SET-LNS-0002-120378

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

Instructions

Betriebsanleitung Sicherheitssysteme MGB-L..B-PN.-... (PROFINET) mit Datenstruktur Typ B ab V3.30.0

	Doc. no.	Version	Language	Download
Betriebsanleitung Sicherheitssysteme MGB-L..B-PN.-... (PROFINET) mit Datenstruktur Typ B ab V3.30.0	115174	07-02/15		3.2 MB
Operating Instructions Safety Systems MGB-L..B-PN.-... (PROFINET) with Data Structure Type B from V3.30.0	115174	07-02/15		3.2 MB

Sicherheitsinformation (Teil der Betriebsanleitung Sicherheitssystem MGB-L.B-PN.-... (PROFINET)) ab V3.30.0

	Doc. no.	Version	Language	Download
Sicherheitsinformation (Teil der Betriebsanleitung Sicherheitssystem MGB-L.B-PN.-... (PROFINET)) ab V3.30.0 Safety Information (Part of the Operating Instructions Safety System MGB-L.B-PN.-... (PROFINET)) from V3.30.0	123621	02-03/15		0.2 MB

Catalogs

Multifunctional Gate Box MGB Multifunctional Gate Box MGB Multifunctional Gate Box MGB Multifunctional Gate Box MGB Multifunctional Gate Box MGB 多功能系统安全控制系统 MGB

	Doc. no.	Version	Language	Download
Multifunctional Gate Box MGB	106108	10-02/18		8.2 MB
Multifunctional Gate Box MGB	109155	10-02/18		8.2 MB
Multifunctional Gate Box MGB	114433	10-02/18		8.3 MB
Multifunctional Gate Box MGB	121652	10-02/18		8.0 MB
Multifunctional Gate Box MGB	106109	10-02/18		8.2 MB
多功能系统安全控制系统 MGB	155883	10-02/18		8.3 MB

Application example

Anschluss MGB-L1B-PN... an Siemens S7 315F (TIA Portal V13)

	Doc. no.	Version	Language	Download
Anschluss MGB-L1B-PN... an Siemens S7 315F (TIA Portal V13)	AP000226	01-02/17		1.5 MB
Connecting MGB-L1B-PN... to Siemens S7 315F (TIA Portal V13)	AP000226	01-02/17		1.7 MB

Anschluss MGB-L2B-PN... an Siemens S7 315F

	Doc. no.	Version	Language	Download
Anschluss MGB-L2B-PN... an Siemens S7 315F	AP000222	02-09/16		2.0 MB
Connection of MGB-L2B-PN... to Siemens S7 315F	AP000222	02-09/16		1.6 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	2123624	06-01/17		0.3 MB