

ITEM 114426 MGB-L1B-PNA-L-114426

Description	Technical data	Accessories	Downloads
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Features

- › Guard locking with guard lock monitoring
- › Emergency stop according to ISO 13850
- › 2 white pushbuttons illuminated with symbol
- › 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).

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	
In case of use as door stop, and 1 Joule impact energy	1×10^6 $0,1 \times 10^6$
Installation position	Door hinge DIN left
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	Closed-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 blow min. 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	Printed
Color	white
Switching element	1NO
Slide-in label	

Control/indicator	
	Position 93
Version	Emergency stop
Special features	
Color	
Switching element	2 pos. driven NC
Slide-in label	
Control/indicator	
	Position 95
Version	Illuminated push buttons
Special features	Printed
Color	white
Switching element	1NO
Slide-in label	

Miscellaneous

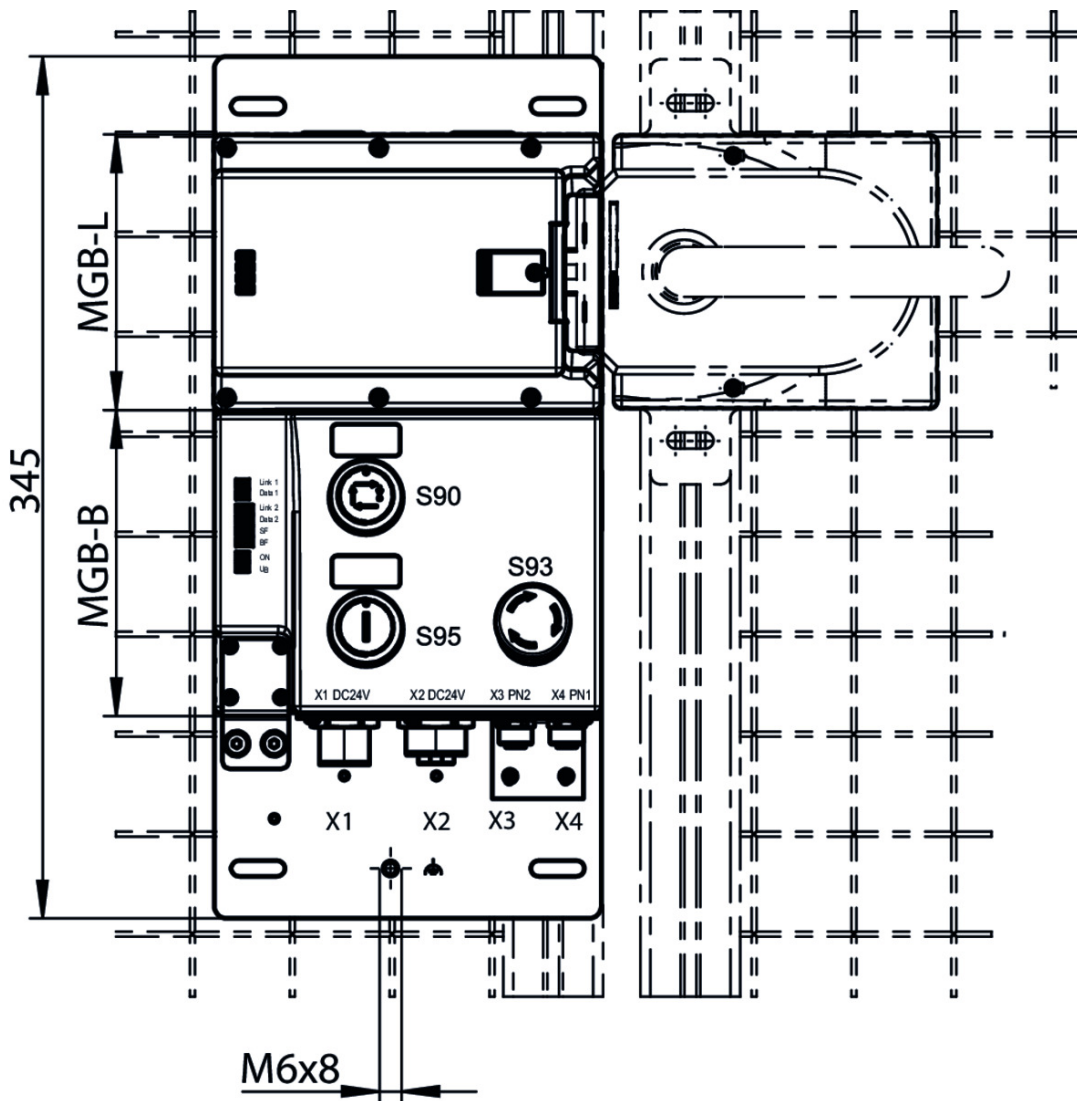
Product version number	V3.30.10
Slide-in label	2 pcs. without marking

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
	Control of the guard locking
Category	4
Performance Level	PL e
PFH _D	3.91×10^{-8}
	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 6 colors



120378 AY-SET-LNS-0002-120378

▼ Lens set 5 colors



120344 AY-SET-LNS-0001-120344

▼ Lens set labeled



120377 AY-SET-LNS-SY01-120377



125359 AY-SET-LNS-SY02-125359



126158 AY-SET-LNS-SY03-126158

▼ 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

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