

ITEM 127479 MGB-L1B-PNA-R-127479

Description	Technical data	Accessories	Downloads
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Features

- › Guard locking with guard lock monitoring
- › Emergency stop according to ISO 13850, illuminated
- › 3 pushbuttons (illuminated, ye, bu, gn)
- › 1 pushbuttons, not illuminated
- › Emergency unlocking pre-assembled
- › 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	
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 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	Closed-circuit current principle
Locking force F_{Zh}	2000 N

Electrical connection ratings

Current consumption	max.500 mA
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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		L1
Control/indicator		
		Position 1
Version		Emergency stop illuminated

Special features	
Color	
Switching element	2 pos. driven NC
Slide-in label	
Control/indicator	
	Position 90
Version	Illuminated push buttons
Special features	
Color	Yellow
Switching element	1NO
Slide-in label	
Control/indicator	
	Position 92
Version	Illuminated push buttons
Special features	
Color	Blue
Switching element	1NO
Slide-in label	
Control/indicator	
	Position 93
Version	Illuminated push buttons
Special features	
Color	Green
Switching element	1NO
Slide-in label	
Control/indicator	
	Position 95
Version	Button
Special features	
Color	Black
Switching element	1NO
Slide-in label	

Miscellaneous

Additional feature	Pre-assembled incl. emergency unlocking
Product version number	V3.30.10
Slide-in label	
	CYCLE STOP / UNLOCK
	PARO DE CICLO / DESBLOQUEAR
	ZYKLUS STOP / ENTRIEGELN
	LOCK
	BLOQUEAR
	VERRIEGELN
	EMERGENCY RELEASE
	LIBERAR PARO DE EMERGENCIA

	NOTENTRIEGELUNG
	AUTOMATIK START
	ARRANQUE AUTOMATICO
	AUTO START
	RESTABLECER
	Reset

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	0.1×10^6
Emergency stop	
	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.)

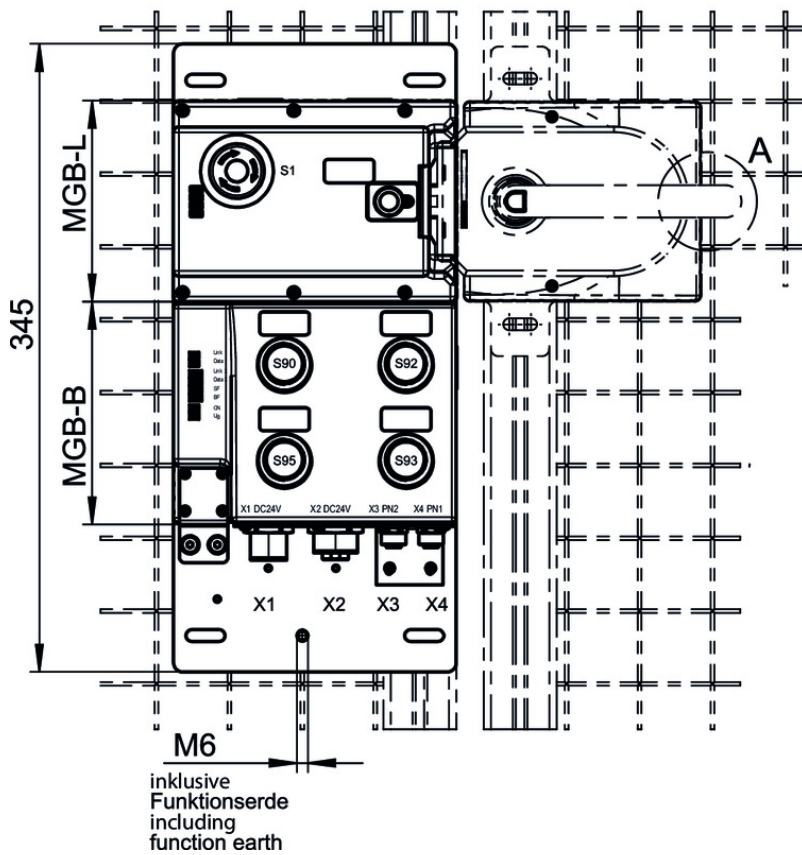
[9] (Reverse polarity protected, regulated, residual ripple <5%, PELV)

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

[11, 12] For looping through for connected devices

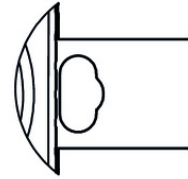
[13] Fixed failure rate without consideration of faults in wearing parts.

Dimension drawing



Detail A

Sperrverriegelung im
ausgefahrenen Zustand
Automatic lockoutbar in "open" position.



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	2123624	06-01/17		 0.3 MB
Declaración UE de conformidad				
Déclaration UE de conformité				
Dichiarazione di conformità				
EU declaration of conformity			