

ITEM 106224 MGB-L2CB-PN-L-106224

Description	Technical data	Accessories	Downloads
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Features

- › Guard locking with guard lock monitoring
- › Emergency stop according to ISO 13850
- › 8 pushbuttons illuminated
- › Operating mode selector switch
- › 1 indicator
- › Including adhesive labels
- › Push-pull plug
- › Including terminal plug for enabling switch (RC12, 12-pin)
- › Pre-assembled on mounting plates
- › Integrated Profinet RT switch
- › Multicode

Profinet connection

Connection via push-pull plugs according to IEC 61076-3-117

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 4,05 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]
Enabling switch	Switch-off timemax.250 ms [2]
Operating mode selector switch	Switch-off timemax.220 ms [3]
Door position	Switch-off timemax.550 ms [4]
Bolt position	Switch-off timemax.550 ms [5]
Guard locking	Switch-off timemax.550 ms [6]
Switching frequency	0,25 Hz
Connection	
	Push-pull power [7]
	Push-pull power [8]
According to IEC 61076-3-117 variant 14, screened, Profinet I/O cable, at least cat. 5e	Push-pull RJ45 [9]
According to IEC 61076-3-117 variant 14, screened, Profinet I/O cable, at least cat. 5e	Push-pull RJ45 [10]
	Plug connector RC12 [11]
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		Multicode
		Power supply X1
Operating voltage DC		
	L1	24 V DC -15% ... 10% [12]
Auxiliary voltage DC		
	L2	24 V DC -15% ... +10% [13]
Fusing		
	external	Slow blow min.1 A
		Power supply X2
Operating voltage DC		
	L1	24 V DC -15% ... 10% [14]
Auxiliary voltage DC		
	L2	24 V DC -15% ... +10% [15]

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		L2
Assignment diagram		C3
Assignment diagram		B2
Control/indicator		

	Position 1
Version	Illuminated push buttons
Special features	
Color	white
Switching element	1NO
Slide-in label	
Control/indicator	
	Position 2
Version	Illuminated push buttons
Special features	
Color	white
Switching element	1NO
Slide-in label	
Control/indicator	
	Position 3
Version	Illuminated push buttons
Special features	
Color	white
Switching element	1NO
Slide-in label	
Control/indicator	
	Position 4
Version	Illuminated push buttons
Special features	
Color	white
Switching element	1NO
Control/indicator	
	Position 5
Version	Illuminated push buttons
Special features	
Color	white
Switching element	1NO
Control/indicator	
	Position 6
Version	Illuminated push buttons
Special features	
Color	white
Switching element	1NO
Slide-in label	
Control/indicator	
	Position 7
Version	Emergency stop
Special features	
Color	
Switching element	2 pos. driven NC
Control/indicator	

	Position 8
Version	Illuminated push buttons
Special features	
Color	white
Switching element	1NO
Slide-in label	
Control/indicator	
	Position 11
Version	Cover for indicators
Special features	
Color	Red
Switching element	
Slide-in label	
Control/indicator	
	Position 12
Version	Illuminated push buttons
Special features	
Color	white
Switching element	1NO
Slide-in label	
Control/indicator	
	Position 13
Version	Operating mode selector switch
Special features	
Color	
Switching element	Code 2 of 3
Slide-in label	Unsecured ; special function ; S-zone secured

Miscellaneous

Product version number	V3.30.10
Slide-in label	
	Anlage Start
	Anlage Stopp
	Cooling water on
	Cooling water off
	Open safety door
	S-Bereich Quittieren
	S-Bereich Gesichert
	Line Start
	Line Stop
	Cooling Water Extraction On
	Cooling Water Extraction Off
	Safety Gate Open
	S-Zone Reset
	S-Zone Secured

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} [16]
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}
	Selector switch evaluation
Category	4
Performance Level	PL e
PFH _D	4.1×10^{-8}
	Enabling switch
B10 _D	Enabling switch
	According to manufacturer's specifications
	Enabling switch 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, 5, 6] 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.

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

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

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

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

[11] X14

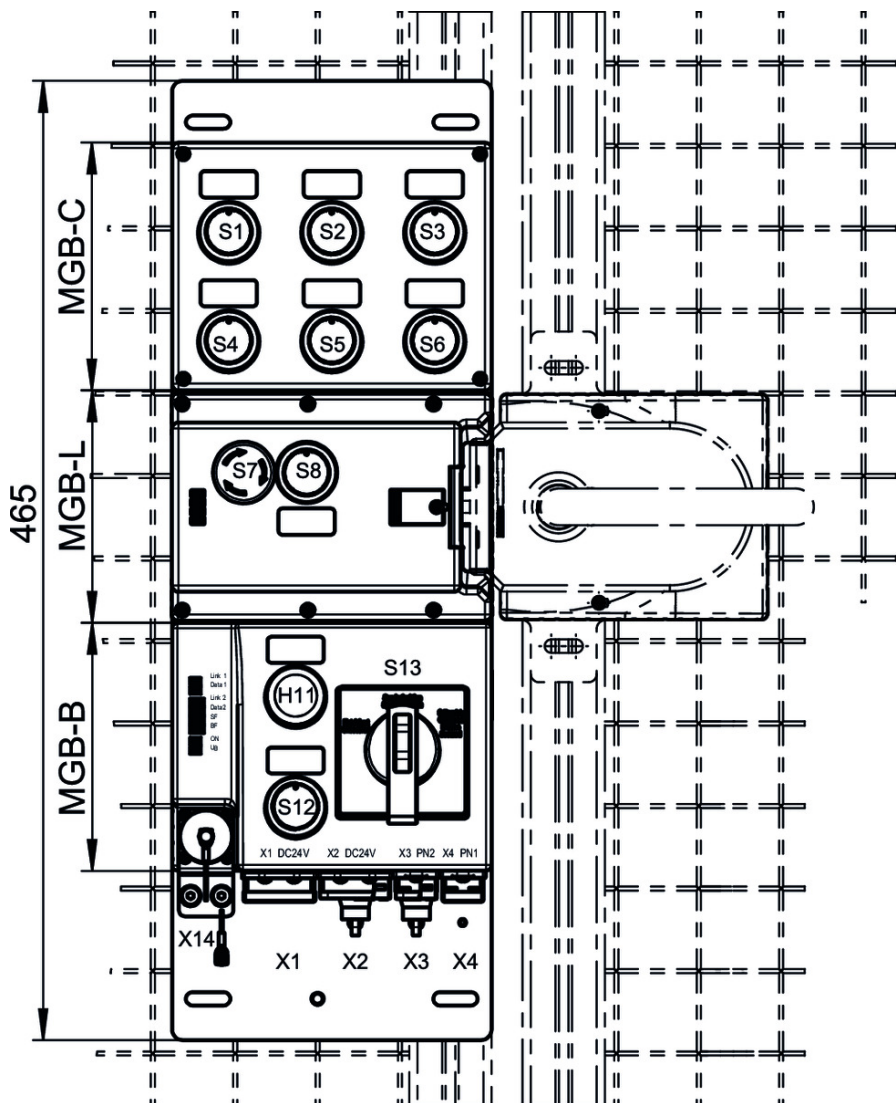
[12] (Reverse polarity protected, regulated, residual ripple <5%, PELV)

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

[14, 15] For looping through for connected devices

[16] 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



126158 AY-SET-LNS-SY03-126158



125359 AY-SET-LNS-SY02-125359

▼ 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

Enabling switch

▼ ZSA, 3-stage with cable and plug connector RC12



099495 ZSA099495C2038

▼ Features

- › Housing G1
- › 3-stage function
- › Straight connection cable with plug connector, 15 m
- › Direct connection to safety switch



100873 ZSA100873C2038

▼ Features

- › Housing G1
- › 3-stage function
- › Straight connection cable with plug connector, 25 m
- › Direct connection to safety switch



097567 ZSA097567C2038

▼ Features

- › Housing G1
- › 3-stage function
- › Straight connection cable with plug connector, 10 m
- › Direct connection to safety switch



092141 ZSA092141C2038

▼ Features

- › Housing G1
- › 3-stage function
- › Straight connection cable with plug connector, 5 m
- › Direct connection to safety switch

▼ ZSM, + and - buttons, plug connector RC12



113290 ZSM2300-113290

▼ Features

- › 3-stage function
 - › + and - buttons
 - › Plug connector
 - › Straight connection cable, 13 m
-



099716 ZSM2300-099716

▼ Features

- › 3-stage function
 - › + and - buttons
 - › Plug connector
 - › Straight connection cable, 5 m
-

▼ ZSB, housing G3, 3-stage, +/- pushbuttons, cable with plug connector RC12



077029 ZSB077029

▼ Features

- › 3-stage function
 - › Housing G3
 - › Straight connection cable, 5 m
 - › Plug connector
 - › Two illuminated buttons
 - › Including holder
-

▼ ZSB, housing G3, 3-stage, +/- pushbuttons illuminated, cable with plug connector RC12



085058 ZSB085058

▼ Features

- › 3-stage function
 - › Housing G3
 - › Straight connection cable, 12 m
 - › Plug connector
 - › Two illuminated buttons
 - › Including holder
-

▼ ZSB, housing G1, 3-stage, +/- pushbuttons, cable with plug connector RC12







077040 ZSB077040

▼ Features




- › Housing G1
 - › 3-stage function
 - › Straight connection cable, 5 m
 - › Plug connector
 - › 2 buttons
-

Instructions

- Operating Instructions Safety Systems MGB-L..B-PN.-... (PROFINET) with Data Structure Type A from V3.30.0





	Doc. no.	Version	Language	Download
Betriebsanleitung Sicherheitssysteme MGB-L..B-PN.-... (PROFINET) mit Datenstruktur Typ A ab V3.30.0	114575	04-03/15		 2.7 MB
Operating Instructions Safety Systems MGB-L..B-PN.-... (PROFINET) with Data Structure Type A from V3.30.0	114575	04-03/15		 2.8 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