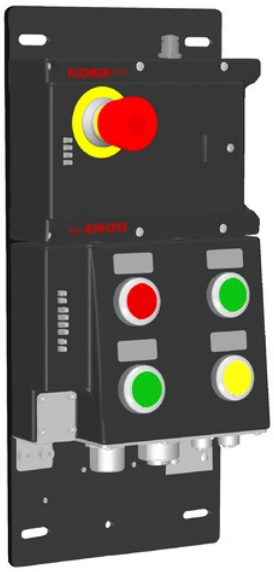
MGB-L2B-PNA-R-161481 (ORDER NO. 161481)

Evaluation module and bus module MGB-L2...-PN... (guard locking by solenoid force) with 5 control elements, 7/8" and M12 plugs

- Guard locking with guard lock monitoring
- Emergency stop according to ISO 13850, illuminated
- 4 illuminated pushbuttons
- including adhesive labels
- Connection via 7/8" and M12 plugs
- including terminal plug for stack light (M12, 5-pin)
- Pre-assembled on mounting plates
- Integrated Profinet RT switch
- Unicode



Description

Profinet connection

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

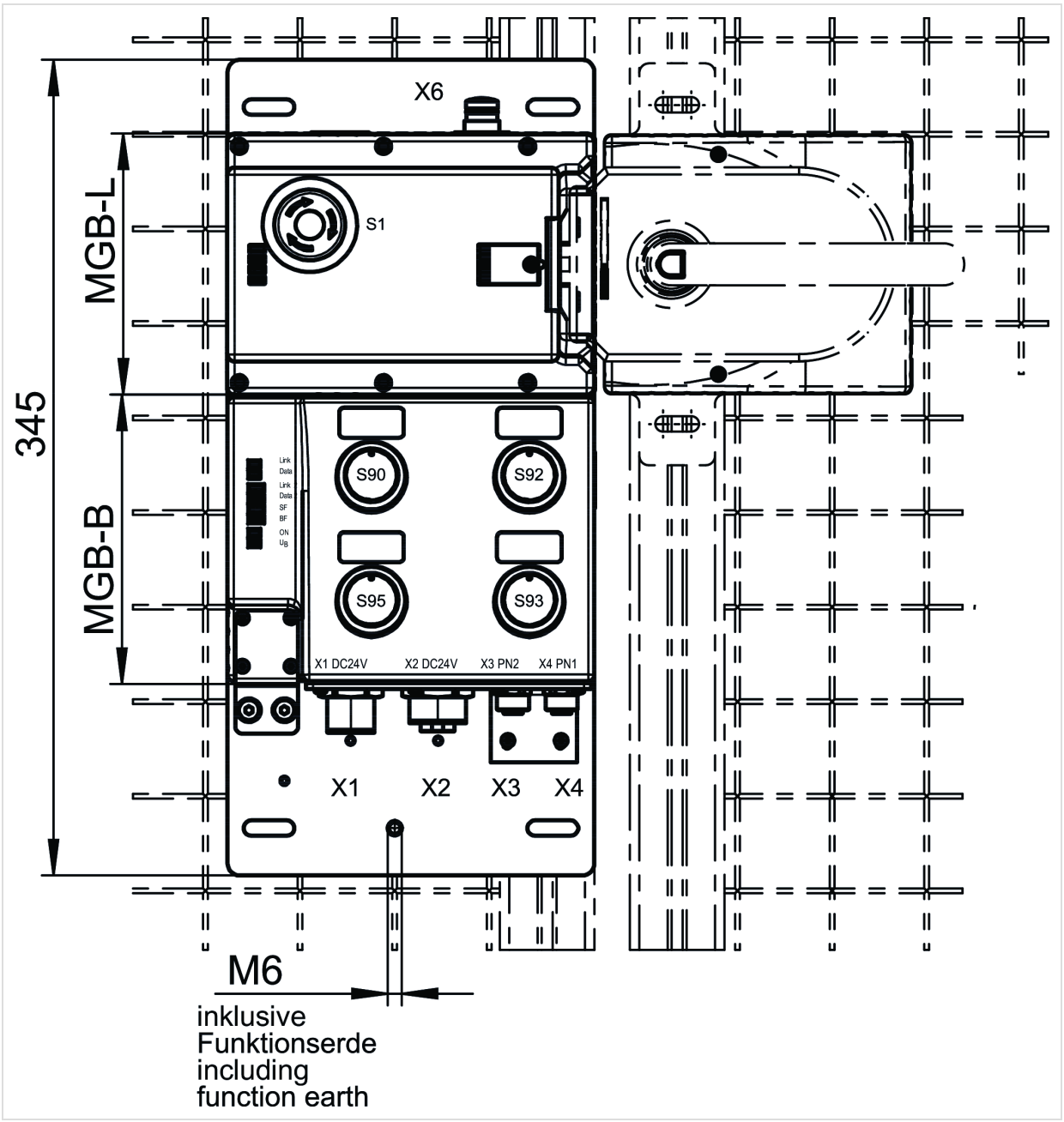
Profinet RT switch

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

Flexible use as interlocking or guard locking

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

Dimension drawings



Technical data

Approvals

Work area

Assured release distance s_{ar}		
	Door position	max. 65 mm

Controls and indicators

Assignment diagram	
	B1
	L1

Item	Extras	Color	Designation1	Number	LED	Version	Slide-in label	Einlegeschild Anmerkung	Switching element
1						Emergency stop illuminated			2 PD
90		red				Illuminated pushbutton			1NO
92		green				Illuminated pushbutton			1NO
93		yellow				Illuminated pushbutton			1NO
95		green				Pushbutton			1NO

Electrical connection ratings

Connecting cable		
	Ethernet	Profinet I/O cable, at least cat. 5e
Current consumption		max. 500 mA
Degree of contamination (external, according to EN 60947-1)		3
EMC protection requirements		In accordance with EN 61000-4 and EN 61326-3-1
maximum feed-in current in the connection block		
	X1, X2	max. 4000 mA
Rated impulse withstand voltage U_{imp}		0.5 kV
Rated insulation voltage U_i		75 V
Safety class		III
Transponder coding		Unicode
		Power supply X1
Auxiliary voltage DC		
	L2	24 V DC -15% ... +10% (The auxiliary voltage is not required for the MGB system)
Fusing		
	extern	min. 1 A träge
Operating voltage DC		
	L1	24 V DC -15% ... +10% ((verpolsicher, geregelt, Restwelligkeit <5%, PELV))
		Power supply X2
Auxiliary voltage DC		
	L2	24 V DC -15% ... +10% (For looping through for connected devices)
Operating voltage DC		
	L1	24 V DC -15% ... +10% (Zum Weiterschleifen für nachfolgende Geräte)

Mechanical values and environment

Ambient temperature	
at UB = 24V DC	–20 ... +55 °C
Connection	
acc. to IEC 61076-2-101, Profinet I/O cable, at least cat. 5e	M12, D-coded, screened (X3 (The document PROFINET “Cabling and Interconnection Technology” from the PNO aids in the correct selection of cables.))
acc. to IEC 61076-2-101, Profinet I/O cable, at least cat. 5e	M12, D-coded, screened (X4 (The document PROFINET “Cabling and Interconnection Technology” from the PNO aids in the correct selection of cables.))
	7/8” Power (X1 (The document PROFINET “Cabling and Interconnection Technology” from the PNO aids in the correct selection of cables.))
	Plug connector M12 (X6)
	7/8” Power (X2 (The document PROFINET “Cabling and Interconnection Technology” from the PNO aids in the correct selection of cables.))
Degree of protection	IP54
Guard locking principle	Open-circuit current principle
Installation orientation	Door hinge DIN right
Locking force F_{Zh}	2000 N
Material	
Housing	Fiber glass reinforced plastic, nickel-plated die-cast zinc, stainless steel
Mechanical life	
in case of use as door stop, and 1 Joule impact energy	0.1×10^6
	1×10^6
Reaction time	
Door position	max. 550 ms Turn-off time (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.)
Guard locking	max. 550 ms Turn-off time (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.)
Emergency stop / machine stop	max. 250 ms Turn-off time (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.)
Bolt position	max. 550 ms Turn-off time (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.)
Shock and vibration resistance	according to EN 60947-5-3
Switching frequency	0.25 Hz

Reliability values according to EN ISO 13849-1

Mission time		20 y
Safety Integrity Level		SIL 3 (EN 62061:2005)
		Control of guard locking
Category		4
Performance Level		PL e
PFHd		3.91 x 10-8
		Emergency stop
B10d		
	Emergency stop	0.13×10^6
		Emergency-stop evaluation
Category		4
Performance Level		PL e
PFHd		4.1 x 10-8
		Monitoring of guard locking and the guard position
Category		4
Diagnostic Coverage (DC)		99 %
Performance Level		PL e
PFHd		4.07 x 10-8 (Fixed failure rate without consideration of faults in wearing parts.)

Miscellaneous

Product version number	V3.30.10
Slide-in label	

Anzahl	Beschriftung	Anmerkung
		ohne Aufschrift

Interface, bus

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

Accessories

Miscellaneous

Adhesive labels

114529
MGB-A-PLATESET-NN01-114529

- Adhesive labels suitable for MGB evaluation modules, bus modules and control modules
- silver, blank
- Packaging unit = 10 pcs.

Lens set labeled

126158
AY-SET-LNS-SY03-126158

158307
AY-SET-LNS-SY04-158307

160049
AY-SET-LNS-SY05-160049

120377
AY-SET-LNS-SY01-120377

125359
AY-SET-LNS-SY02-125359

Lens set, 5 colors

120344
AY-SET-LNS-0001-120344

163284
AY-SET-LNS-0003-163284

Lens set, 6 colors

120378
AY-SET-LNS-0002-120378

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