

MGB-L1B-PNC-L-117022 (ORDER NO. 117022)

Evaluation module and bus module MGB-L1...-PN (guard locking by spring force) with 4 control elements, push-pull plug, RC12

- ▶ Guard locking with guard lock monitoring
- ▶ Emergency stop according to ISO 13850, illuminated
- ▶ 3 illuminated pushbuttons with symbol
- ▶ Push-pull plug
- ▶ including terminal plug for enabling switch (RC12, 12-pin)
- ▶ Pre-assembled on mounting plates
- ▶ Multicode



Description

Profinet connection

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

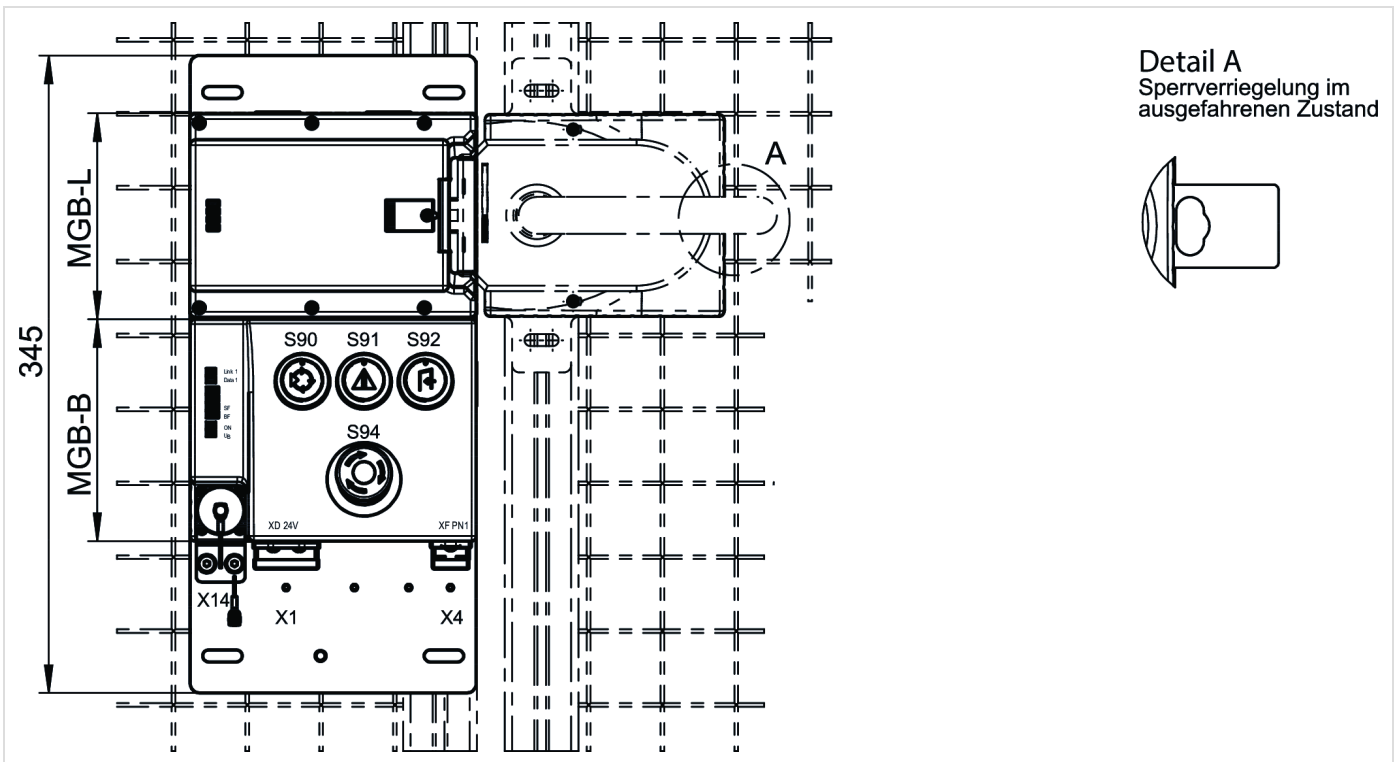
Flexible use as interlocking or guard locking

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).

Illuminated emergency stop

Emergency stop with illumination that can be controlled as required.

Dimension drawings



Technical data

Approvals



Work area

Assured release distance s_{ar}

Door position max. 65 mm

Controls and indicators

Assignment diagram

B1

L0

Item	Extras	Color	Designation1	Number	LED	Note slide-in label	Version	Switching element	Slide-in label
90	printed	white					Illuminated pushbutton	1NO	
91	printed	yellow					Illuminated pushbutton	1NO	
92	printed	blue					Illuminated pushbutton	1NO	
94	with adhesive ring						Emergency stop illuminated	2 PD	

Electrical connection ratings

Connecting cable

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

Mechanical values and environment

Ambient temperature

at $U_B = 24V$ DC $-20 \dots +55 \text{ }^\circ\text{C}$

Connection

Plug connector RC12
(X14)

Push-pull power
(X1 (The document PROFINET "Cabling and Interconnection Technology" from the PNO aids in the correct selection of cables.))

according to IEC 61076-3-117, variant 14, screened, Profinet I/O cable, at least cat. 5e Push-pull RJ45
(X4 (The document PROFINET "Cabling and Interconnection Technology" from the PNO aids in the correct selection of cables.))

Degree of protection

IP54

Guard locking principle

Closed-circuit current principle

Installation orientation

Door hinge DIN left

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.)

Enabling switch 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.)

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.)

Switching frequency

0.25 Hz

Shock and vibration resistance

according to EN 60947-5-3

Locking force F_{Zh}

2000 N

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
PFH _D	3.91 x 10 ⁻⁸
Emergency stop	
B _{10D}	Emergency stop 0.13 x 10 ⁶
Enabling switch	
B _{10D}	Enabling switch (Acc. to manufacturer's specifications)
Emergency-stop evaluation	
Performance Level	PL e
Category	4
PFH _D	4.1 x 10 ⁻⁸
Enabling switch evaluation	
Performance Level	PL e
Category	4
PFH _D	4.1 x 10 ⁻⁸
Monitoring of guard locking and the guard position	
Diagnostic Coverage (DC)	99 %
Performance Level	PL e
Category	4
PFH _D	4.07 x 10 ⁻⁸ (Fixed failure rate without consideration of faults in wearing parts.)

Miscellaneous

Product version number	V3.30.11
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Interface, bus

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

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-SFT-I NS-SY03-126158



AY-SET-LNS-SY03-120100



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

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



099495
ZSA099495C2038

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



100873
ZSA100873C2038

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



092141
ZSA092141C2038

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



097567
ZSA097567C2038

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

ZSB

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



077040
ZSB077040

- ▶ Housing G1
 - ▶ 3-stage function
 - ▶ Straight connecting cable, 5 m
 - ▶ Plug connector
 - ▶ 2 pushbuttons
-

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



077029
ZSB077029

- ▶ 3-stage function
 - ▶ Housing G3
 - ▶ Straight connecting cable, 5 m
 - ▶ Plug connector
 - ▶ Two illuminated pushbuttons
 - ▶ Including holder
-

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



085058
ZSB085058

- ▶ 3-stage function
 - ▶ Housing G3
 - ▶ Straight connecting cable, 12 m
 - ▶ Plug connector
 - ▶ Two illuminated pushbuttons
 - ▶ Including holder
-

ZSM

ZSM, + and - buttons, plug connector RC12



113290
ZSM2300-113290

- ▶ 3-stage function
- ▶ + and - buttons
- ▶ Plug connector
- ▶ Straight connecting cable, 13 m
- ▶ Plug connector



099716
ZSM2300-099716

- ▶ 3-stage function
- ▶ + and - buttons
- ▶ Plug connector
- ▶ Straight connecting cable, 5 m
- ▶ Plug connector

Contacts

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