

## MGB-L1B-PNA-L-127480 (ORDER NO. 127480)

Evaluation module and bus module MGB-L1...-PN... (guard locking by spring force) with 5 control elements, emergency release, 7/8" and M12 plugs

- ▶ Guard locking with guard lock monitoring
- ▶ Emergency stop according to ISO 13850, illuminated
- ▶ 3 illuminated pushbuttons (ye, bu, gn)
- ▶ 1 pushbutton, not illuminated
- ▶ Emergency release pre-assembled
- ▶ including adhesive labels
- ▶ Connection via 7/8" and M12 plugs
- ▶ 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.

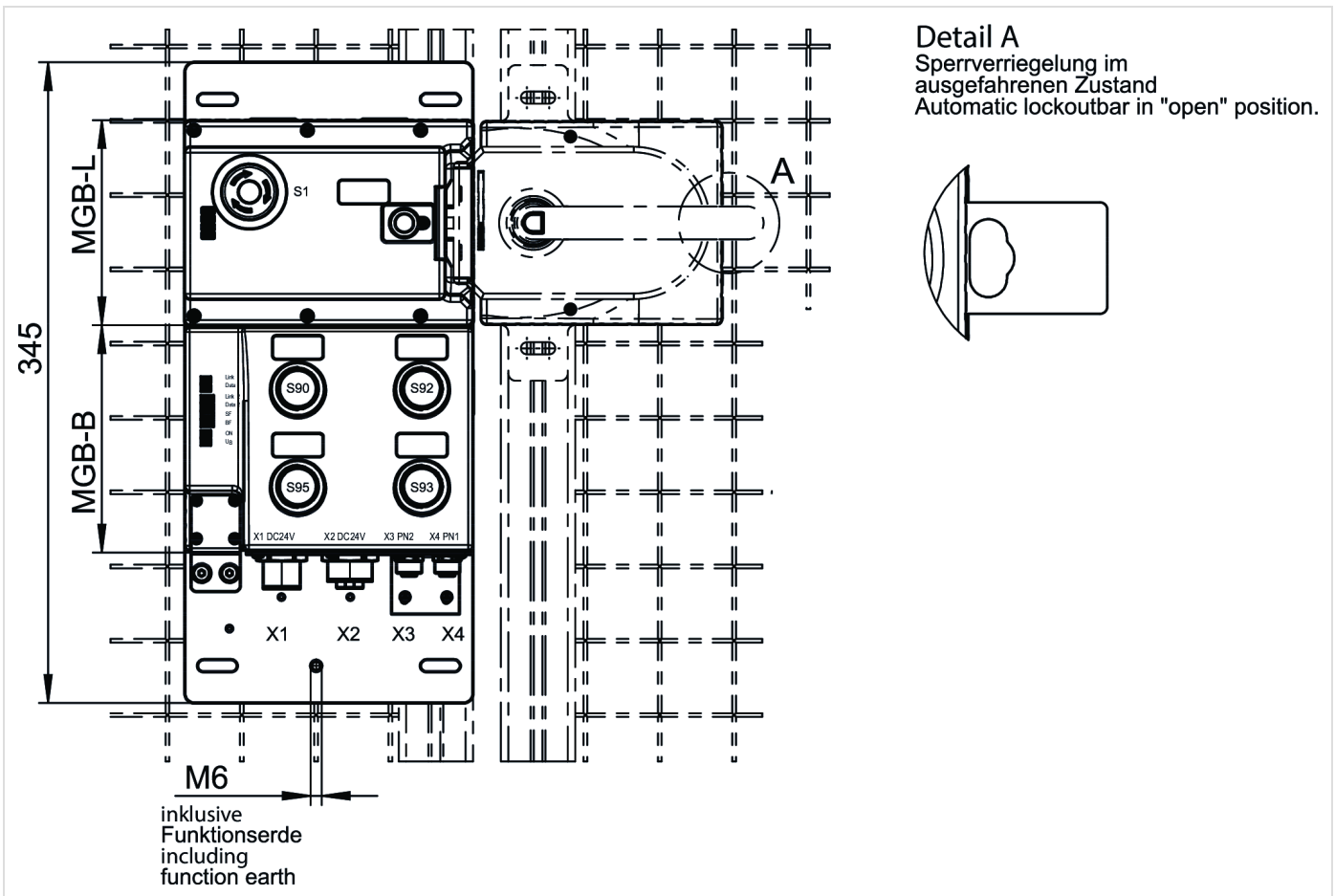
#### Flexible use as interlocking or guard locking

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).

#### 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

L1

B1

Item	Extras	Color	Designation1	Number	LED	Version	Slide-in label	Einlegeschild Anmerkung	Switching element
1						Emergency stop illuminated			2 PD
90		yellow				Illuminated pushbutton			1NO
92		blue				Illuminated pushbutton			1NO
93		green				Illuminated pushbutton			1NO
95		black				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
		<b>Power supply X1</b>
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))
		<b>Power supply X2</b>
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

7/8" Power  
(X2 (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  
(X3 (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.))

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.))

Degree of protection

IP54

Guard locking principle

Closed-circuit current principle

Installation orientation

Door hinge DIN left

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 x 10<sup>6</sup>

1 x 10<sup>6</sup>

Reaction time

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.)

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.)

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.)

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.)

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)
<b>Control of guard locking</b>	
Category	4
Performance Level	PL e
PFHd	$3.91 \times 10^{-8}$
<b>Emergency stop</b>	
B10d	
Emergency stop	$0.13 \times 10^6$
<b>Emergency-stop evaluation</b>	
Category	4
Performance Level	PL e
PFHd	$4.1 \times 10^{-8}$
<b>Monitoring of guard locking and the guard position</b>	
Category	4
Diagnostic Coverage (DC)	99 %
Performance Level	PL e
PFHd	$4.07 \times 10^{-8}$ (Fixed failure rate without consideration of faults in wearing parts.)

## Miscellaneous

Additional feature	incl. pre-assembled emergency release
Product version number	V3.30.10
Slide-in label	

Anzahl	Beschriftung	Anmerkung
	LIBERAR PARO DE EMERGENCIA	
	AUTO START	
	VERRIEGELN	
	AUTOMATIK START	
	CYCLE STOP / UNLOCK	
	ZYKLUS STOP / ENTRIEGELN	
	LOCK	
	ARRANQUE AUTOMATICO	
	PARO DE CICLO / DESBLOQUEAR	
	RESET	
	EMERGENCY RELEASE	
	BLOQUEAR	
	NOTENTRIEGELUNG	
	RESTABLECER	

## 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

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**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

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**126158**  
AY-SET-LNS-SY03-126158



**120377**  
AY-SET-LNS-SY01-120377



**158307**  
AY-SET-LNS-SY04-158307



**125359**  
AY-SET-LNS-SY02-125359



**160049**  
AY-SET-LNS-SY05-160049

### Lens set, 5 colors

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**120344**  
AY-SET-LNS-0001-120344



**163284**  
AY-SET-LNS-0003-163284

### Lens set, 6 colors

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**120378**  
AY-SET-LNS-0002-120378



AY-SET-LNS-0002-120378

## Contacts

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