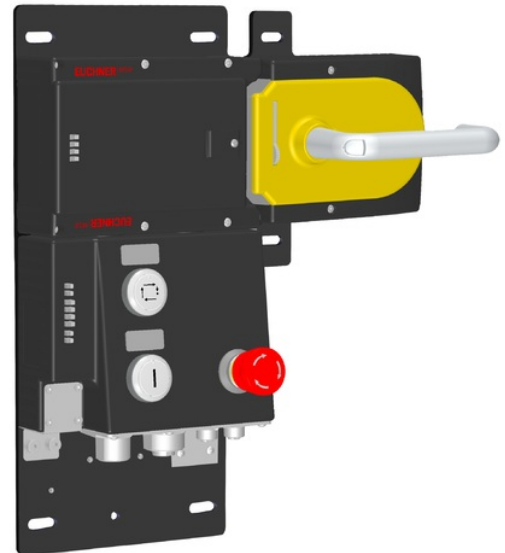


MGB-L1HB-PNA-R-114423 (ORDER NO. 114423)

Locking set MGB-L1...-PN... (guard locking by spring force) with 3 control elements, 7/8" and M12 plugs

- ▶ Guard locking with guard lock monitoring
- ▶ Emergency stop according to ISO 13850
- ▶ 2 illuminated white pushbuttons with symbol
- ▶ 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

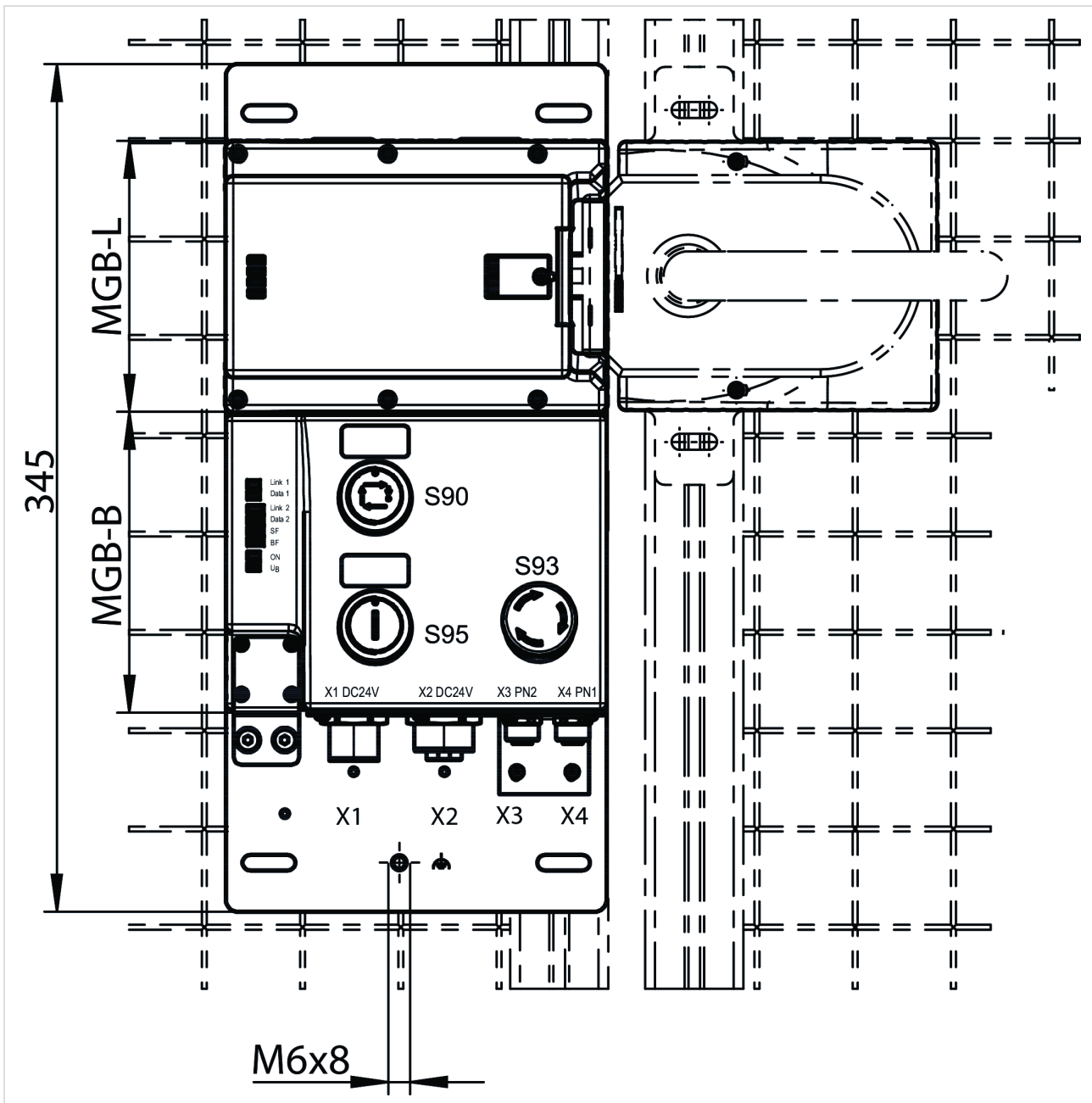
Profinet RT switch

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).

Dimension drawings



Technical data

Approvals



Locking modules MGB-L1B-PNA-R-114425 (Order No. 114425)

Work area



Assured release distance s_{ar}

Door position max. 65 mm

Controls and indicators

Assignment diagram

L0

B1

Item	Extras	Color	Designation1	Number	LED	Version	Einlegeschild Anmerkung	Slide-in label	Switching element
90	printed	white				Illuminated pushbutton			1NO
93						Emergency stop			2 PD
95	printed	white				Illuminated 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 (X4 (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 (X2 (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.))
Degree of protection	IP54
Guard locking principle	Closed-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 x 10 ⁶ 1 x 10 ⁶
Reaction time	
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.)
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.)
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	3.91×10^{-8}
Emergency stop	
B10d	
Emergency stop	0.13×10^6
Emergency-stop evaluation	
Category	4
Performance Level	PL e
PFHd	4.1×10^{-8}
Monitoring of guard locking and the guard position	
Category	4
Diagnostic Coverage (DC)	99 %
Performance Level	PL e
PFHd	4.07×10^{-8} (Fixed failure rate without consideration of faults in wearing parts.)

Miscellaneous

Product version number	V3.30.10	
Slide-in label		
Anzahl	Beschriftung	Anmerkung
2		ohne Aufschrift

Interface, bus

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

Handle modules MGB-H-AA1A8-R-114465 (Order No. 114465)



Mechanical values and environment

Ambient temperature	-20 ... +55 °C
Degree of protection	IP65
Installation orientation	Door hinge DIN right
Material	
Housing	Fiber glass reinforced plastic, nickel-plated die-cast zinc, stainless steel

Miscellaneous

Additional feature

with mounting plate

with yellow cover

Product version number

V3.0.0

Components



114425
MGB-L1B-PNA-R-114425
Evaluation module and bus module
MGB-L1...-PN... (guard locking by
spring force) with 3 control elements,
7/8" and M12 plugs

- ▶ Guard locking with guard lock monitoring
- ▶ Emergency stop according to ISO 13850
- ▶ 2 illuminated white pushbuttons with symbol
- ▶ including adhesive labels
- ▶ Connection via 7/8" and M12 plugs



114465
MGB-H-AA1A8-R-114465
Handle module MGB-H..., yellow

- ▶ Pre-assembled on mounting plates
- ▶ Integrated Profinet RT switch
- ▶ Unicode
- ▶ Intelligent bolt tongue
- ▶ Lockout bar
- ▶ Door handle
- ▶ Mounting plate

Accessories

Function expansion

Emergency release for safety system MGB



112989
MGB-A-EMERGENCYRELEASE-
112989

- ▶ Quick emergency release
- ▶ sealable

Escape release module MGB-E... pre-assembled on mounting plate



106051
MGB-E-A2-106051

- ▶ Escape release from the danger zone
- ▶ Mounted on mounting plate
- ▶ With red handle
- ▶ 115 mm long

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



125359
AY-SET-LNS-SY02-125359



126158
AY-SET-LNS-SY03-126158



158307
AY-SET-LNS-SY04-158307



120377
AY-SET-LNS-SY01-120377



160049
AY-SET-LNS-SY05-160049

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

Spare parts

Evaluation module and bus module MGB-L1...-PN... (guard locking by spring force) with 3 control elements, 7/8" and M12 plugs



114425
MGB-L1B-PNA-R-114425

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Handle module MGB-H..., yellow



114465
MGB-H-AA1A8-R-114465

- ▶ Intelligent bolt tongue
- ▶ Lockout bar
- ▶ Door handle
- ▶ Mounting plate

Contacts

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