

ITEM 158320 MGBS-P-L1-AP-U-R-AE-SA-158320

Description	Technical data	Accessories	Downloads
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Features

- › Locking module (order handle module separately)
- › Adjustable door hinge; factory setting: right
- › Short circuit monitoring
- › Two safety outputs (semiconductor outputs)
- › Up to category 4/PL e according to EN ISO 13849-1
- › With plug connector M12
- › Unicode
- › Door monitoring output
- › With escape release (order inner door handle separately)

Door hinge

The door hinge can be changed.

Unicode evaluation

Each handle module is unique. The locking module detects only handle modules that have been taught in. Additional handle modules can be taught in. Only the last handle module taught in is detected.

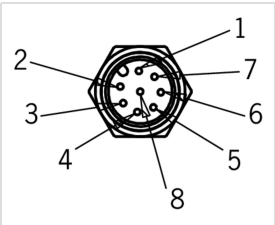


Guard locking type

MGBS- Guard locking actuated by spring force applied and power-ON
L1 released (closed-circuit current principle)

Escape release

It is used for the manual release of the guard locking without tools. The inner door handle permits escape from the danger zone.

Connector assignment

Plug connector (view of connection side)	Pin	Designation	Function	Conductor coloring of connecting cable
	1	IMP	Operating voltage of guard locking solenoid 24 V DC	WH
	2	UB	Operating voltage of AP electronics 24 V DC	BN
	3	FO1A	Safety output, channel 1 	GN
	4	FO1B	Safety output, channel 2 	YE
	5	OI	Diagnostic output	GY
	6	OD	Door monitoring output	PK
	7	0 V UB	Operating voltage of AP electronics 0 V	BU
	8	IMM	Operating voltage of guard locking solenoid 0 V	RD

Approvals



Mechanical values and environment

Housing material	
Switch head cover	Die-cast zinc
Safety switch housing	Fiber glass reinforced thermoplastic
Switch bracket	Die-cast zinc

Weight		
	Net	1,5 kg
Ambient temperature		
	At $U_B = 24V$ DC	-20 ... +55 °C
Degree of protection		IP67 / IP69 / IP69K [1]
Resilience to vibration		In acc. with EN IEC 60947-5-3
Mechanical life		1×10^6
Installation position		Any
Ready delay		max.1 s
Switching frequency		max.0,5 Hz
Connection		1 plug connector M12, 8-pin
Approach speed		20 m/min
Guard locking principle		Closed-circuit current principle
Locking force F_{max}		3900 N
Locking force F_{Zh}		3000 N [2]
Retention force		20 N
Extraction force		20 N
Actuating force		10 N
Overtravel		5 mm

Electrical connection ratings

Test-pulse interval		min.100 ms
Test pulses		max.0,3 ms [3]
Operating voltage DC	U_{UB}	24 V DC -15% ... 15% Reverse polarity protected, regulated, residual ripple < 5%, PELV
Current consumption	I_{UB} I_{IMP}	40 mA 400 mA
Utilization category according to EN 60947-5-2	DC-13	24V 150mA [4]
Solenoid operating voltage DC	U_{IMP}	24 V DC -15% ... +10% Reverse polarity protected, regulated, residual ripple < 5%, PELV
Fusing		
	External (operating voltage U_B)	0,25 ... 2 A
	External (solenoid operating voltage IMP)	0,5 ... 8 A
Rated insulation voltage U_i		max.50 V
Rated impulse withstand voltage U_{imp}		max.0,5 kV
Power consumption		6 W
EMC protection requirements		In acc. with EN IEC 60947-5-3
Solenoid duty cycle		100 %
Degree of contamination (external, according to EN 60947-1)		3

Safety class	EN IEC 61140 III
Switching load	According to UL 24V DC, class 2 [5]
Safety outputs FO1A / FO1B	
Type of output	2 semiconductor outputs, p-switching, short circuit-proof
Switching current	
Per safety output FO1A / FO1B	1 ... 150 mA
Output voltage	
HIGH U(FO1A) / U(FO1B)	UB-1,5 ... UB V DC
LOW U(FO1A) / U(FO1B)	0 ... 1 V DC
Off-state current I _r	max.0,25 mA
Switch-on time	max.400 ms
Discrepancy time	
Both safety outputs	In acc. with EN IEC 60947-5-3max.10 ms
Monitoring output OD	
Type of output	p-switching, short circuit-proof
Switching current	1 ... 50 mA
Output voltage	0,8xUB ... UB V DC
Monitoring output OI	
Type of output	p-switching, short circuit-proof
Switching current	1 ... 50 mA
Output voltage	0,8xUB ... UB V DC

Operating distance

Repeat accuracy R	
According to EN 60947-5-2	10 %

Miscellaneous

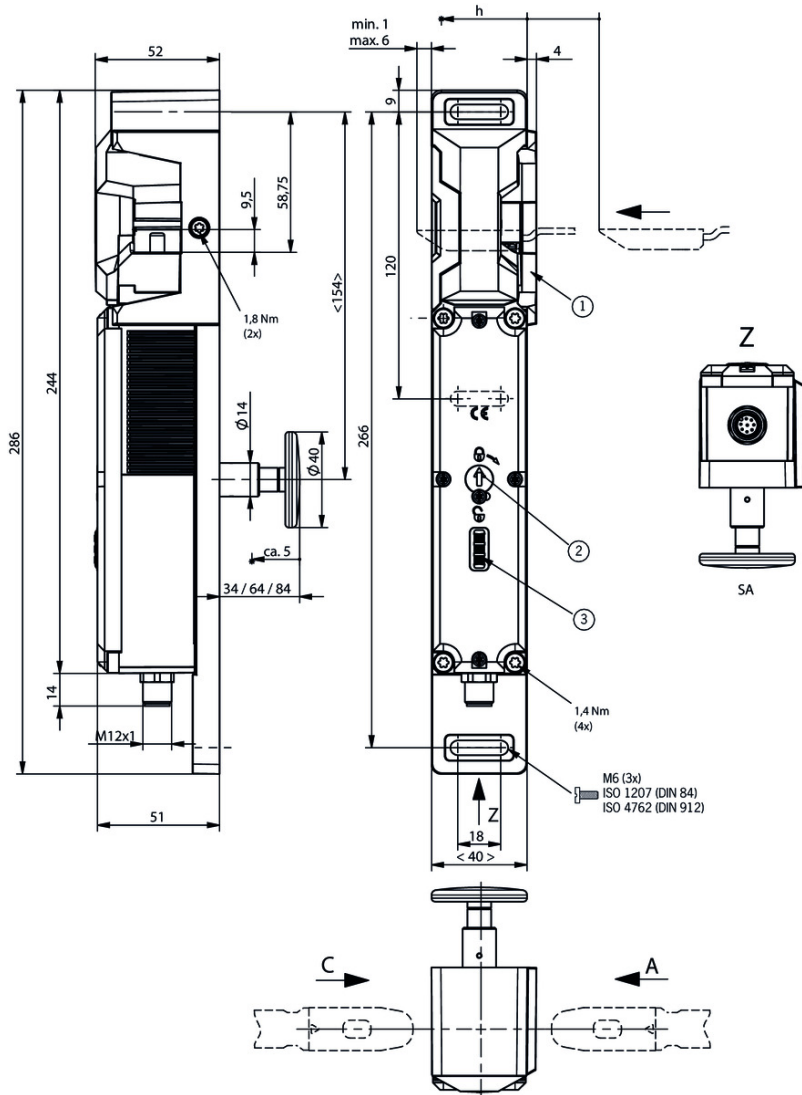
Additional feature	Escape release actuated by pushing
For the approval according to UL the following applies	Operation only with UL class 2 power supply, or equivalent measures see operating instructions

Reliability values acc. to EN ISO 13849-1

Performance Level	PL e
Category	4
PFH _D	4.1 x 10 ⁻⁹
Mission time	20 y

- [1] Screwed tight plug connector/mating component
- [2] $F_{zh} = F_{max}/1.3$ Depending on the actuator used
- [3] Applies for a load with $C \leq 30nF$ and $R \leq 20k\Omega$
- [4] Caution: outputs must be protected with a free-wheeling diode in case of inductive loads
- [5] Alternatively see operating instructions

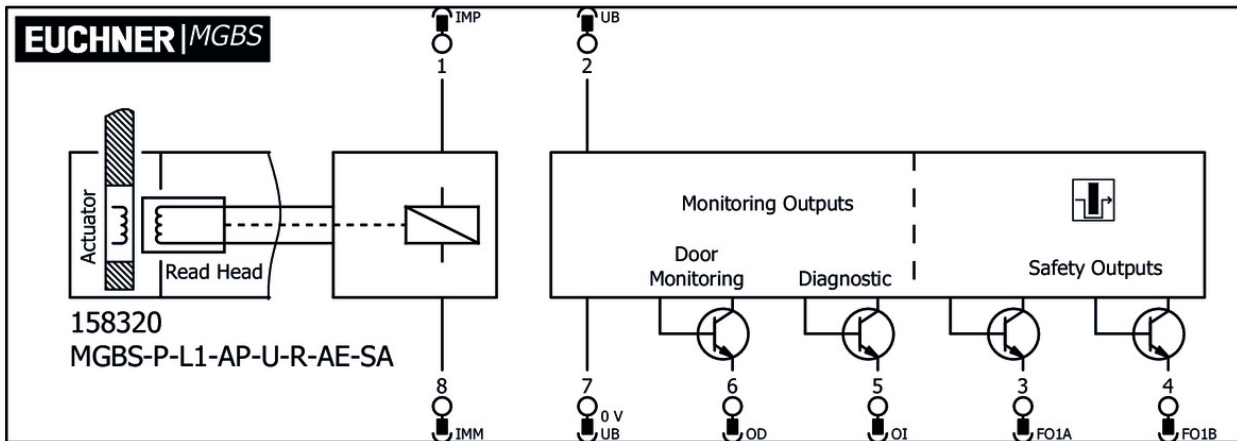
Dimension drawing



Legende

- 1 Door hinge right
- 2 Mechanical release
- 3 LEDs

Wiring diagram



Spare parts

Handle module MGBS-H-BA1A3-R



157543 MGBS-H-BA1A3-R-157543

Features

- › Intelligent bolt tongue
- › Door hinge on right (not adjustable)
- › Automatically extending lockout mechanism
- › Door handle

Handle module MGBS-H-BA1A3-L



157544 MGBS-H-BA1A3-L-157544

Features

- › Intelligent bolt tongue
- › Door hinge on left (not adjustable)
- › Automatically extending lockout mechanism
- › Door handle

Function expansion

Inner door handle AE-R-S1



158322 AE-R-S1-158322

Features

- › Inner door handle silver colored
- › incl. sticker describing the opening sequence
- › Extended actuation axis for thicker doors (order separately)

Lock for auxiliary release for safety switches CTP/TP/STP

109212 SCHLOSS TP GLEICHSCHLIESSEND C2293

Features



- › Identical locking
- › Key can be removed only in “locked” position



084177 SCHLOSS TP VERSCHIEDENSCHLIESSEND

▼ Features

- › Lock unique locking
- › Key removable in “unlocked” and “locked” positions



086236 SCHLOSS TP GLEICHSCHLIESSEND

▼ Features

- › Identical locking
- › Key removable in “unlocked” and “locked” positions

▼ Release with automatic reset for safety switches CTP/TP/STP



103110 ENTRIEGELUNG RUECKSTELLEND TP/STP

▼ Emergency unlocking for safety switches CTP/TP/STP



099877 NOTENTSPERRUNG TP/STP

▼ Wire front release



096230 AE-B-A1-02,0-096230

▼ Features

- › Can be used as escape release or emergency unlocking
- › No automatic return
- › Sheath length 2 m (rope length 6 m)



098314 AE-B-A1-04,0-098314

▼ Features

- › Can be used as escape release or emergency unlocking
- › No automatic return
- › Sheath length 4 m (rope length 6 m)



111233 AE-B-A1-03,0-F-111233

▼ Features

- › Can be used as escape release or emergency unlocking
- › automatic return
- › Sheath length 3 m (rope length 6 m)



098313 AE-B-A1-03,0-098313

▼ Features

- › Can be used as escape release or emergency unlocking
- › No automatic return
- › Sheath length 3 m (rope length 6 m)



097747 AE-B-A1-02,0-F-097747

✓ Features

- › Can be used as escape release or emergency unlocking
- › automatic return
- › Sheath length 2 m (rope length 6 m)



124770 AE-B-A1-06,0-F-124770

✓ Features

- › Can be used as escape release or emergency unlocking
- › automatic return
- › Rope length 6 m (without sheath)



125582 AE-B-A1-06,0-125582

✓ Features

- › Can be used as escape release or emergency unlocking
- › No automatic return
- › Rope length 6 m (without sheath)

✓ Handle for wire front release



099795 AY-HDL-099795

✓ Features

- › Suitable for all wire front releases



124204 AY-HDL-124204

✓ Features

- › Suitable for all wire front releases

Connection material

✓ Connection cable with angled plug connector M12, 8-pin, 20m



120998 C-M12F08-08X025PU20,0-MA-120998

✓ Features

- › M12 female plug, 8-pin
- › Angled plug connector
- › Cable outlet A (right)
- › PUR cable
- › Cable length 20 m
- › With flying lead



120999 C-M12F08-08X025PU20,0-MA-120999

✓ Features

- › M12 female plug, 8-pin
- › Angled plug connector
- › Cable outlet C (left)
- › PUR cable
- › Cable length 20 m
- › With flying lead

▼ Connection cable with angled plug connector M12, 8-pin, 10m



113188 C-M12F08-08X025PU10,0-MA-113188

▼ Features

- › M12 female plug, 8-pin
- › Angled plug connector
- › Cable outlet A (right)
- › PUR cable
- › Cable length 10 m
- › With flying lead



113189 C-M12F08-08X025PU10,0-MA-113189

▼ Features

- › M12 female plug, 8-pin
- › Angled plug connector
- › Cable outlet C (left)
- › PUR cable
- › Cable length 10 m
- › With flying lead

▼ Connection cable with plug connector M12, 8-pin, 5m



115112 C-M12F08-08X025PU05,0-MA-115112

▼ Features

- › M12 female plug, 8-pin
- › Straight plug connector
- › PUR cable
- › Cable length 5 m
- › With flying lead



100177 C-M12F08-08X025PV05,0-MA-100177

▼ Features

- › M12 female plug, 8-pin
- › Straight plug connector
- › PVC cable
- › Cable length 5 m
- › With flying lead

▼ Connection cable with plug connector M12, 8-pin, 10m



115113 C-M12F08-08X025PU10,0-MA-115113

▼ Features

- › M12 female plug, 8-pin
- › Straight plug connector
- › PUR cable
- › Cable length 10 m
- › With flying lead



100178 C-M12F08-08X025PV10,0-MA-100178

▼ Features

- › M12 female plug, 8-pin
- › Straight plug connector

- › PVC cable
 - › Cable length 10 m
 - › With flying lead
-

☑ Connection cable with plug connector M12, 8-pin, 20m



115114 C-M12F08-08X025PU20,0-MA-115114

☑ Features

- › M12 female plug, 8-pin
 - › Straight plug connector
 - › PUR cable
 - › Cable length 20 m
 - › With flying lead
-



100179 C-M12F08-08X025PV20,0-MA-100179

☑ Features

- › M12 female plug, 8-pin
 - › Straight plug connector
 - › PVC cable
 - › Cable length 20 m
 - › With flying lead
-

☑ Connection cable with plug connector M12, 8-pin, 30m



115257 C-M12F08-08X025PU30,0-MA-115257

☑ Features

- › M12 female plug, 8-pin
 - › Straight plug connector
 - › PUR cable
 - › Cable length 30 m
 - › With flying lead
-



115116 C-M12F08-08X025PV30,0-MA-115116

☑ Features

- › M12 female plug, 8-pin
 - › Straight plug connector
 - › PVC cable
 - › Cable length 30 m
 - › With flying lead
-

Instructions

☑ Bezpečnostní informace CTP (-AR/-AP)

Doc. no. Version Language Download

Sicherheitsinformation CTP (-AR/-AP)	2138087	02-11/17		0.7 MB
Safety Information CTP (-AR/-AP)				
Información de seguridad CTP (-AR/-AP)				
Information de sécurité CTP (-AR/-AP)				
Informazioni sulla sicurezza CTP (-AR/-AP)				
Bezpečnostní informace CTP (-AR/-AP)	2138087	02-11/17		0.2 MB
安全情報 CTP (-AR/-AP)	2138087	02-11/17		0.3 MB
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Montageanleitung Multifunctional Gate Box MGBS

	Doc. no.	Version	Language	Download
Montageanleitung Multifunctional Gate Box MGBS	2150944	03-09/18		1.5 MB
Assembly Instructions Multifunctional Gate Box MGBS	2150944	03-09/18		1.5 MB

Návod k použití Bezpečnostní spínač s kódovaným transpondérem CTP-AP Unicode/Multicode

	Doc. no.	Version	Language	Download
Betriebsanleitung Transpondercodierter Sicherheitsschalter mit Zuhaltung CTP-AP Uni-/Multicode	2124217	05-05/18		4.2 MB
Mode d'emploi Interrupteur de sécurité à codage par transpondeur avec interverrouillage CTP-AP uni-/multicode	2124217	05-05/18		4.2 MB
Manual de instrucciones Interruptor de seguridad con codificación por transponder con bloqueo CTP-AP Unicode/Multicode	2124217	05-05/18		4.2 MB
Návod k použití Bezpečnostní spínač s kódovaným transpondérem CTP-AP Unicode/Multicode	2124217	05-05/18		4.4 MB
Operating instructions Transponder-Coded Safety Switch With Guard Locking CTP-AP Unicode/Multicode	2124217	05-05/18		4.2 MB
Istruzioni di impiego Finecorsa di sicurezza con codifica a transponder con meccanismo di ritenuta CTP-AP Uni-/Multicode	2124217	05-05/18		4.2 MB
操作指示書トランスポンダー型コード化安全スイッチガードロック内蔵CTP-AP ユニコード/マルチコード	2124217	05-05/18		4.5 MB