

MGBS-P-L1-AP-U-R-AZ-SA-159366 (Order no. 159366)

MGBS-AP, M12, door hinge on right

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



Door hinge

The door hinge can be changed.

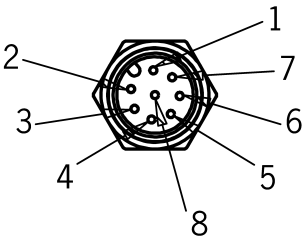
Unicode evaluation

Each handle module is highly coded (unicode). 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.

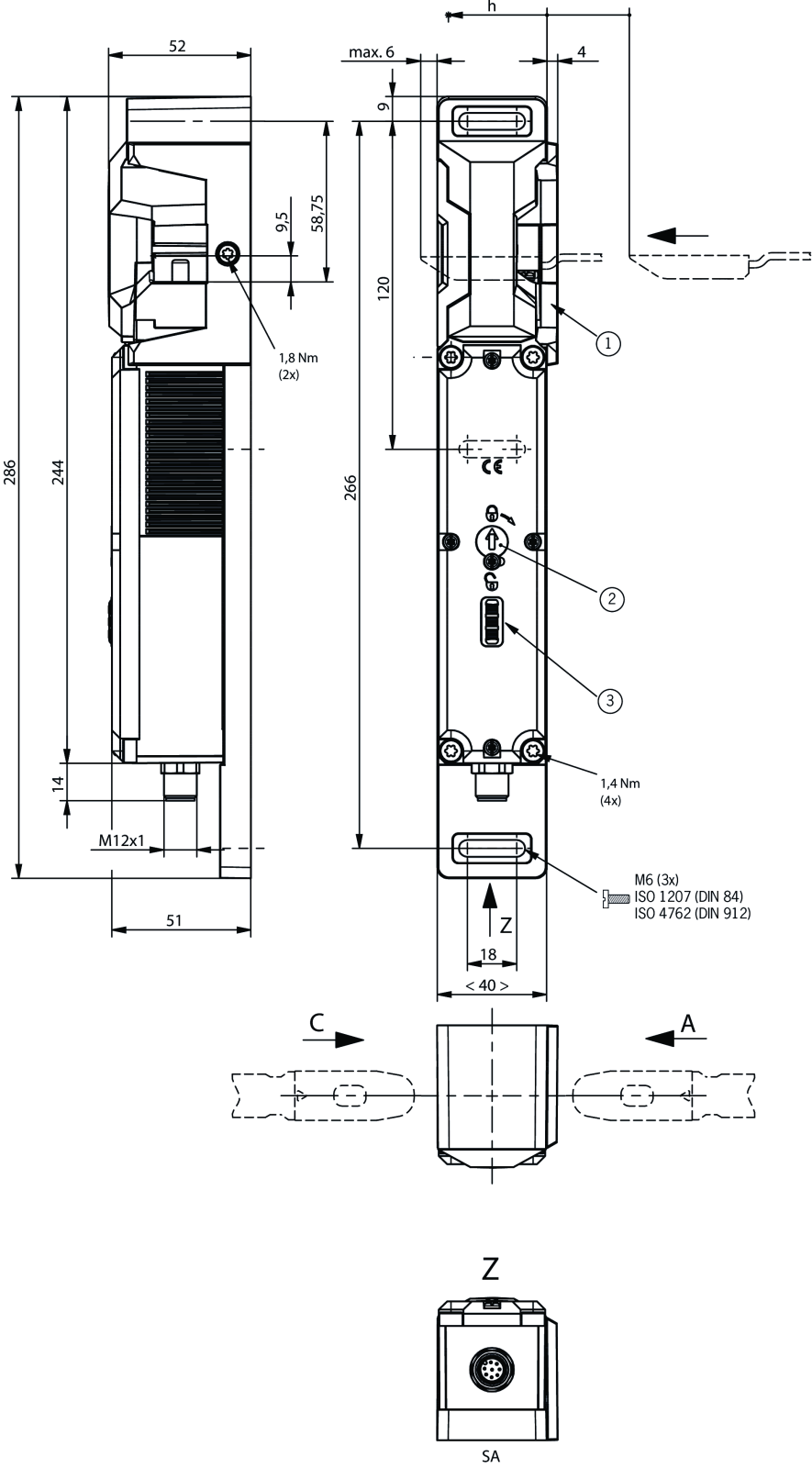
Guard locking type

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

Connector assignment

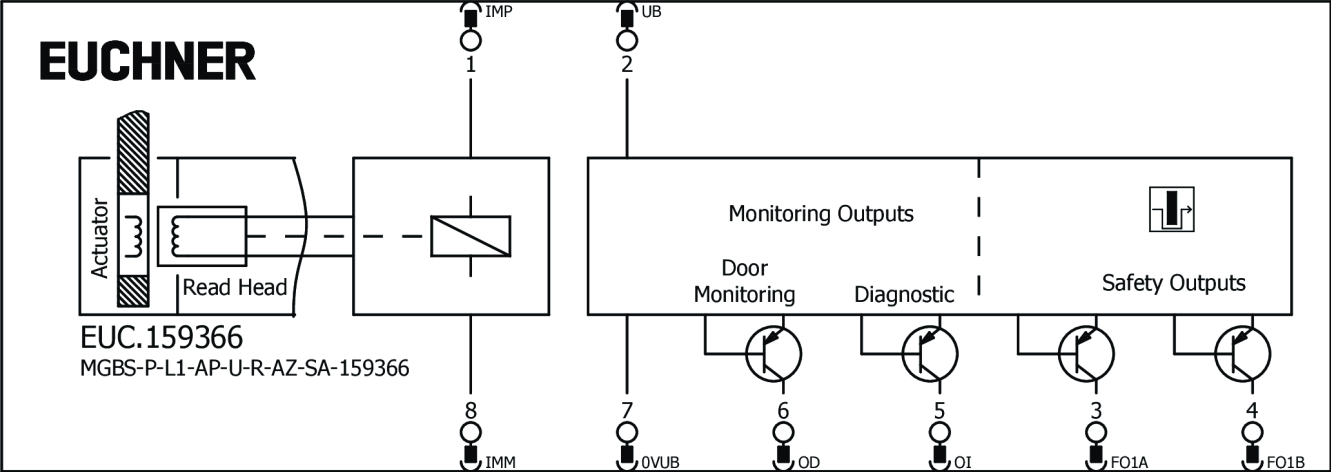
Plug connector (view of connection side)	Pin	Designation	Function	Connecting cable conductor coloring
	1	IMP	Solenoid operating voltage, 24 V DC	WH
	2	UB	Electronics operating voltage, 24 V DC	BN
	3	FO1A	Safety output, channel A	GN
	4	FO1B	Safety output, channel B	YE
	5	OI	Diagnostic monitoring output	GY
	6	OD	Door position monitoring output	PK
	7	0VUB	Electronics operating voltage, 0 V DC	BU
	8	IMM	Solenoid operating voltage, 0 V DC	RD

Dimensional drawings



- 1 Door hinge left/right
- 2 Auxiliary release
- 3 LEDs

Connection examples



Technical data

Approvals



Workspace

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

Electrical connection values

Fuse	
external (operating voltage U_B)	0.25 ... 8 A
external (solenoid operating voltage IMP)	0.5 ... 8 A
Power consumption	6 W
Rated insulation voltage U_i	50 V
Rated impulse withstand voltage U_{imp}	0.5 kV
Operating voltage DC	
U_{UB}	24 V DC -15% ... +15% reverse polarity protected, regulated, residual ripple < 5%, PELV
EMC protection requirements	Acc. to EN IEC 60947-5-3
Utilization category	
DC-13	24 V 150 mA (Caution: outputs must be protected with a free-wheeling diode in case of inductive loads)
Solenoid operating voltage DC	
U_{IMP}	24 V DC -15% ... +10% reverse polarity protected, regulated, residual ripple < 5%, PELV
Solenoid duty cycle	100 %
Switching load	
according to UL	24V DC, Class 2 (alternatively, see operating instructions)

Safety class	
	EN IEC 61140 III
Current consumption	
	I_{IMP} 400 mA
	I_{UB} 40 mA
Test pulse duration	max. 0.3 ms (Applies to a load with $C \leq 30$ nF and $R \leq 20$ kohm)
Test pulse interval	min. 100 ms
Degree of contamination (external, according to EN 60947-1)	3
Monitoring output OD, OI	
Output type	p-switching, short circuit-proof
Output voltage	$0.8 \times U_B \dots U_B$ V DC
Switching current	1 ... 50 mA
Safety outputs FO1A / FO1B	
Output type	2 semiconductor outputs, p-switching, short circuit-proof
Output voltage	
	HIGH $U(FO1A) / U(FO1B)$ $U_B - 1.5 \dots U_B$ V DC
	LOW $U(FO1A) / U(FO1B)$ 0 ... 1 V DC
Discrepancy time	
	both safety outputs max. 10 ms Acc. to EN IEC 60947-5-3
Turn-on time	max. 400 ms
Off-state current I_r	max. 0.25 mA
Switching current	
	per safety output FO1A / FO1B 1 ... 150 mA
Mechanical values and environment	
Approach speed	max. 20 m/min
Connection type	1 plug connector M12, 8-pin
Extraction force	20 N
Ready delay	max. 1 s
Actuating force	10 N
Installation orientation	Door hinge DIN right

Switching frequency	max. 0.5 Hz
Mechanical life	1 x 10 ⁶
Overtravel	5 mm
Retention force	20 N
Shock and vibration resistance	Acc. to EN IEC 60947-5-3
Degree of protection	IP67/IP69/IP69K (screwed tight plug connector/mating component)
Ambient temperature	
	at U _B = 24 V DC -20 ... +55 °C
Material	
	Safety switch housing Reinforced thermoplastic
	Switch bracket Die-cast zinc
	Switch head cover Die-cast zinc
Locking force F _{max}	3900 N
Locking force F _{Zh}	3000 N (Fzh = Fmax/1.3, depending on the actuator used)
Guard locking principle	Closed-circuit current principle

Characteristic values according to EN ISO 13849-1 and EN IEC 62061

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

Miscellaneous

The following applies to the approval according to UL	Operation only with UL Class 2 power supply or equivalent measures; see operating instructions
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Downloads

All documentation for this material can be found on our website:

<https://www.euchner.de/en-us/a/159366/?#downloads-tab>

Ordering data

Ordernumber	159366
Item designation	MGBS-P-L1-AP-U-R-AZ-SA-159366
Gross weight	2,023kg
Customs tariff number	85365019000
ECLASS	27-27-24-05 Safety-related transponder switch with guardlocking

Accessories

Connection accessories

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



113189

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

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



113188

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

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

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



120998

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

- ▶ 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

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

Connecting cable with plug connector M12, 8-pin, 10 m



115113

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

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



100178

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

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

Connecting cable with plug connector M12, 8-pin, 20 m



115114

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

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



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

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

Connecting cable with plug connector M12, 8-pin, 30 m



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

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



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

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

Connecting cable with plug connector M12, 8-pin, 5 m



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

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



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

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

Function expansion

Emergency release for safety switch CTP/CTA/TP/STP/MGB2



099877
AE-M-A1-99877

Handle for wire front release (bowden)



099795
AY-HDL-099795

- ▶ suitable for all wire front releases



124204
AY-HDL-124204

- ▶ suitable for all wire front releases

Lock for auxiliary release for safety switch CTP/CTA/TP/STP



109212
AE-K-A1-IUK2-109212

- ▶ Identical locking
- ▶ Key can be removed only in "unlocked" position



084177
AE-K-A1-DULK1-84177

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



086236
AE-K-A1-IULK1-86236

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

Release with automatic reset for safety switch CTP/CTA/TP/STP/MGB2/MGBS



103110
AE-R-A1-103110

Wire front release (bowden)



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

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



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

- ▶ Can be used as escape release or emergency release
- ▶ no automatic return
- ▶ Sheath length 4 m (rope length 6 m)



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

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



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

- ▶ Can be used as escape release or emergency release
- ▶ no automatic return
- ▶ Sheath length 2 m (rope length 6 m)



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

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



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

- ▶ Can be used as escape release or emergency release
- ▶ no automatic return
- ▶ Rope length 6 m (without sheath)



098313

AE-B-A1-03,0-098313

- ▶ Can be used as escape release or emergency release
- ▶ no automatic return
- ▶ Sheath length 3 m (rope length 6 m)

Modules

Handle module MGBS-H-BA1A3-L



157544

MGBS-H-BA1A3-L-157544

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

Handle module MGBS-H-BA1A3-R



157543

MGBS-H-BA1A3-R-157543

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