Datasheet - AZM 170-11ZRKA-ST 24 VAC/DC

Solenoid interlock / AZM 170

SCHMERSAL

☒ Preferred typ

• Thermoplastic enclosure
• Double-insulated ▢
• Compact design
• 90 mm x 84 mm x 30 mm
• Interlock with protection against incorrect locking.
• Long life
• High holding force
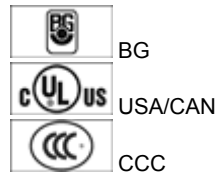• Connector M12, 4-pole
• Manual release

(Minor differences between the printed image and the original product may exist!)

Ordering details

Product type description	AZM 170-11ZRKA-ST 24 VAC/DC
Article number	101141455
EAN code	4030661122014
eCl@ss	27-27-26-03

Approval

Approval	BG
	USA/CAN
	CCC

Classification

Standards	EN ISO 13849-1
B_{10d} Opener (NC)	2.000.000
Mission time	20 Years
notice	

$$MTTF_d = \frac{B_{10d}}{0,1 \times n_{op}}$$

$$n_{op} = \frac{d_{op} \times h_{op} \times 3600 \text{ s/h}}{t_{cycle}}$$

Global Properties

Product name	AZM 170

Standards	EN 60947-5-1, BG-GS-ET-19
Compliance with the Directives (Y/N) CE	Yes
Number of actuating directions	2 piece
Active principle	electromechanical
Duty cycle	Magnet 100 %
Materials	
- Material of the housings	Plastic, glass-fibre reinforced thermoplastic, self-extinguishing
- Material of the contacts	Silver
Housing coating	None
Weight	285 g

Mechanical data

Design of electrical connection	Connector M12
Mechanical life	> 1.000.000 operations
Emergency unlocking device (Y/N)	No
- bottom	
Manual release (Y/N)	Yes
Emergency release (Y/N)	No
Latching force	30 N
Positive break force	8.5 N
positive break travel	11 mm
Clamping force F_{max}	1000 N
Max. Actuating speed	2 m/s

Ambient conditions

Ambient temperature	
- Min. environmental temperature	−25 °C
- Max. environmental temperature	+60 °C
Protection class	IP67 to IEC/EN 60529

Electrical data

Design of control element	Normally open contact (NO), Opener (NC)
notice	change-over contact with double break, type Zb or 2 NC contacts, with galvanically separated contact bridges
Switching principle	Creep circuit element
Number of auxiliary contacts	1 piece
Number of safety contacts	1 piece
Power to unlock	No
Power to lock	Yes
Rated control voltage U_s	24 VAC/DC
Power consumption	max. 10 W
Rated impulse withstand voltage U_{imp}	4 kV
Rated insulation voltage U_i	250 V
Thermal test current I_{the}	10 A
Utilisation category	AC-15: 230 V / 4 A, DC-13: 24 V / 4 A
Max. fuse rating	6 A gG D-fuse

ATEX

Explosion protection categories for gases	None
Explosion protected category for dusts	None

Miscellaneous data

Applications

 sliding safety guard,

 removable guard,

 hinged safety guard

Dimensions

Dimensions of the sensor
- Width of sensor   90 mm
- Height of sensor   75.5 mm
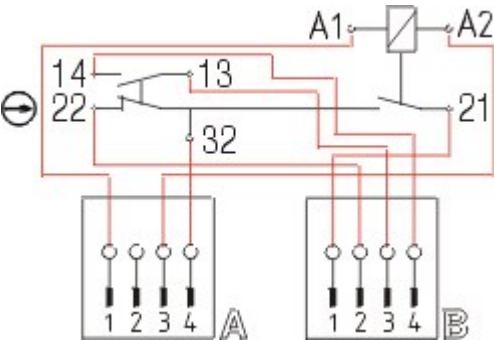- Length of sensor   30 mm

## notice

Individual coding available on request

Manual release
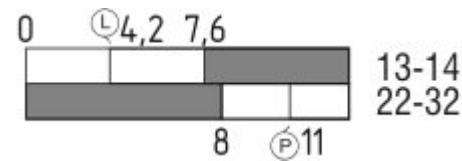- For manual release using M5 triangular key, available as accessory

Diagram

Note Diagram

 positive break NC contact

 active

 no active

 Normally-open contact

 Normally-closed contact

Switch travel diagram

Notes Switch travel diagram

 Contact closed

 Contact open

 Setting range

 Break point

(P) Positive opening sequence/- angle
VS adjustable range of NO contact
VÖ adjustable range of NC contact
N after travel

Ordering suffix

The applicable ordering suffix is added at the end of the part number of the safety switch.
Order example: AZM 170-11ZRKA-ST 24 VAC/DC-**1637**

...**-1637**	0,3 µm gold-plated contacts
...**ST-2431**	connector M12 , Individual solenoid monitoring

Ordering code

AZM 170**(1)**-**(2)**Z**(3)**K**(4)**-**(5)**-**(6)**-**(7)**

(1)	
without	IDC method of termination
SK	Screw connection
(2)	
11	1 Normally open contact (NO) / 1 Opener (NC)
02	2 Opener (NC)
12/0.0	1 Normally open contact (NO), 2 Opener (NC) / -
(3)	
without	Latching force 5 N
R	Latching force 30 N
I	Individual coding
(4)	
without	Power to unlock
A	Power to lock
(5)	
without	cable gland
ST	Connector M12 x 1
ST-2431	Connector M12 x 1, Individual solenoid monitoring
(6)	
24VAC/DC	U_s 24 VAC/DC
110VAC	U_s 110 VAC
230VAC	U_s 230 VAC
(7)	
without	Manual release
2197	Manual release from side (Power to unlock)
1637	gold-plated contacts

AZM 170ST and AZM 170SK

AZM 170ST-(1)Z(2)K(3)-(4)-(5)-024
AZM 170SK-(1)Z(2)K(3)-(4)-(5)-024

(1)	
11/11	1 Normally open contact (NO), 1 Opener (NC) / 1 Normally open contact (NO), 1 Opener (NC)
11/02	1 Normally open contact (NO), 1 Opener (NC) / 2 Opener (NC)

12/00	1 Normally open contact (NO), 2 Opener (NC) / -
12/11	1 Normally open contact (NO), 2 Opener (NC) / 1 Normally open contact (NO), 1 Opener (NC)
12/02	1 Normally open contact (NO), 2 Opener (NC) / 2 Opener (NC)
02/01	2 Opener (NC), - / 1 Opener (NC), -
02/10	2 Opener (NC), - / 1 Normally open contact (NO), -
(2)	
without	Latching force 5 N
R	Latching force 30 N
(3)	
without	Power to unlock
A	Power to lock
(4)	
1637	gold-plated contacts
(5)	
2197	Manual release for Power to unlock

Documents

Operating instructions and Declaration of conformity (fr) 670 kB, 01.07.2010
Code: mrl_azm170_fr

Operating instructions and Declaration of conformity (de) 923 kB, 24.02.2011
Code: mrl_azm170_de

Operating instructions and Declaration of conformity (it) 645 kB, 09.04.2010
Code: mrl_azm170_it

Operating instructions and Declaration of conformity (nl) 720 kB, 23.09.2010
Code: mrl_azm170_nl

Operating instructions and Declaration of conformity (en) 746 kB, 12.03.2010
Code: mrl_azm170_en

Operating instructions and Declaration of conformity (jp) 709 kB, 14.04.2011
Code: mrl_azm170_jp

Operating instructions and Declaration of conformity (pl) 590 kB, 11.02.2015
Code: mrl_azm170_pl

Operating instructions and Declaration of conformity (da) 582 kB, 07.08.2012
Code: mrl_azm170_da

Operating instructions and Declaration of conformity (es) 665 kB, 25.03.2010
Code: mrl_azm170_es

BG-test certificate (en) 236 kB, 10.12.2013
Code: z_m17p02

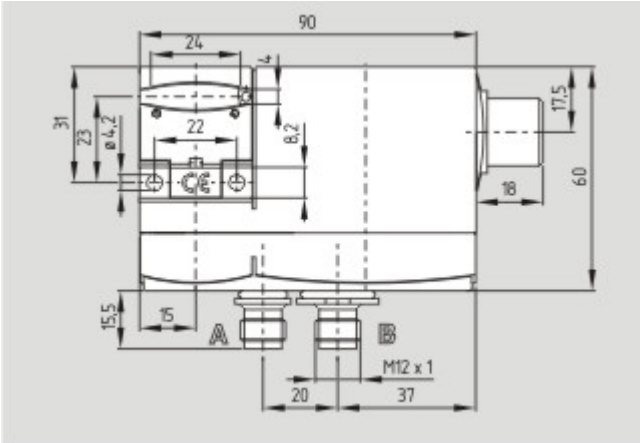**BG-test certificate** (de) 238 kB, 10.12.2013
Code: z_m17p01

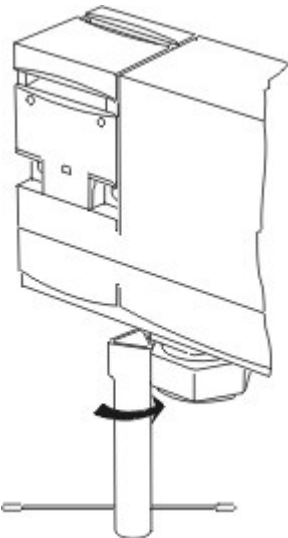**CCC certification** (en) 596 kB, 23.06.2014
Code: q_371p02

Images

Dimensional drawing (basic component)

Detail photo

System components

Actuator

101122893 - AZ 17/170-B1

• Particularly suitable for sliding doors

101137406 - AZ 17/170-B1-2245

• Particularly suitable for sliding doors
• Damps vibration on guard device

101122895 - AZ 17/170-B5

• Particularly suitable for sliding doors

101139788 - AZ 17/170-B11

• Particularly suitable for sliding doors

101139789 - AZ 17/170-B15

• Particularly suitable for sliding doors

101123391 - AZM 170-B6

• Particularly suitable for hinged guards
• For very smal actuating radii
• The direction of actuation can be selected by applicable insertion of the insert

Accessories

101208493 - AZM 170-B CENTERING GUIDE

• for AZ 17 and AZM 170

101100887 - TRIANGULAR KEY TK-M5

• For manual release using M5 triangular key, available as accessory
• For maintenance, installation, etc.

Connector

A-K4M12

• Pre-wired cable
• 4-pole

S-K4M12

• Connector without cable
• 4-pole

A-K4M12

• Pre-wired cable
• 4-pole

S-K4M12

• Connector without cable
• 4-pole