

Datasheet - AZM 170-11ZRK-2197 24 VAC/DC

Solenoid interlock / AZM 170

 Preferred typ

- Thermoplastic enclosure
- Double-insulated
- Compact design
- 90 mm x 84 mm x 30 mm
- 1 Cable entry M 20 x 1.5
- Interlock with protection against incorrect locking.
- Long life
- High holding force
- IDC method of termination
- Manual release from side

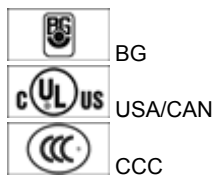
(Minor differences between the printed image and the original product may exist!)

Ordering details

Product type description	AZM 170-11ZRK-2197 24 VAC/DC
Article number	101140813
EAN Code	4030661120010
eCl@ss	27-27-26-03

Approval

Approval




Classification

Standards	EN ISO 13849-1
B10d Normally-closed contact (NC)	2.000.000
Mission time	20 Years
notice	$MTTF_d = \frac{B_{10d}}{0,1 \times n_{op}}$ $n_{op} = \frac{d_{ap} \times h_{op} \times 3600 \text{ s/h}}{t_{cycle}}$

Global Properties

Permanent light	AZM 170
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Standards	EN 60947-5-1, BG-GS-ET-19
Compliance with the Directives (Y/N) 	Yes
Number of actuating directions	2
Active principle	electromechanical
Duty cycle ED	Magnet 100 %
Materials	
- Material of the housings	Plastic, glass-fibre reinforced thermoplastic, self-extinguishing
- Material of the contacts	Silver
Housing coating	None
Weight	285

Mechanical data

Design of electrical connection	IDC method of termination
Cable section	
- Min. Cable section	1 x 0,75
- Max. Cable section	1 x 1.0, flexible
Mechanical life	> 1.000.000 operations
Emergency unlocking device (Y/N)	No
- bottom	
Manual release (Y/N)	Yes
- right	
Emergency release (Y/N)	No
Latching force	30
Positive break force	8.5
positive break travel	11 mm
Clamping force F	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
Number of safety contacts	1
Power to unlock	Yes
Power to lock	No
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	108
- Height of sensor	84
- Length of sensor	30 mm

notice

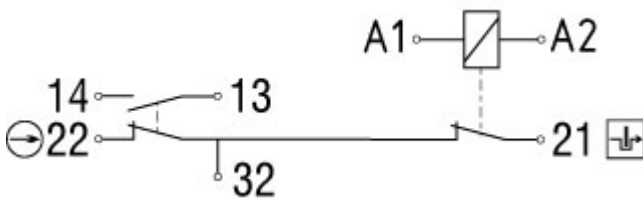
This type termination (IDC) method enables simple connection of flexible conductors without the need for the use of conductor ferrules

Individual coding available on request

Manual release

- For manual release using M5 triangular key, available as accessory
- Additional manual release on side

Diagram



Note Diagram

positive break NC contact

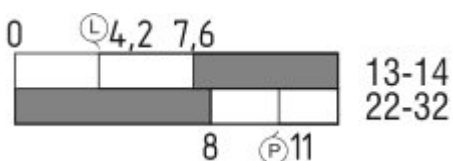
active

no active

Normally-open contact

Normally-closed contact

Switch travel diagram



Notes Switch travel diagram

Contact closed

- Contact open
 - Setting range
 - Break point
 - 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 170-11ZRK-2197 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 SK	IDC method of termination Screw connection
(2) 11 02 12/0.0	1 Normally open contact (NO) / 1 Opener (NC) 2 Opener (NC) 1 Normally open contact (NO), 2 Opener (NC) / -
(3) without R I	Latching force 5 N Latching force 30 N Individual coding
(4) without A	Power to unlock Power to lock
(5) without ST ST-2431	cable gland Connector M12 x 1 Connector M12 x 1, Individual solenoid monitoring
(6) 24VAC/DC 110VAC 230VAC	U _s 24 VAC/DC U _s 110 VAC U _s 230 VAC
(7) without 2197 1637	Manual release Manual release from side (Power to unlock) 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)		
<i>without</i>		Latching force 5 N
R		Latching force 30 N
(3)		
<i>without</i>		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) 701 kB, 15.02.2018

Code: mrl_azm170_fr

Operating instructions and Declaration of conformity (de) 668 kB, 11.01.2018

Code: mrl_azm170_de

Operating instructions and Declaration of conformity (it) 697 kB, 16.01.2018

Code: mrl_azm170_it

Operating instructions and Declaration of conformity (cn) 655 kB, 08.05.2017

Code: mrl_azm170_cn

Operating instructions and Declaration of conformity (nl) 702 kB, 12.07.2018

Code: mrl_azm170_nl

Operating instructions and Declaration of conformity (en) 700 kB, 11.01.2018

Code: mrl_azm170_en

Operating instructions and Declaration of conformity (jp) 843 kB, 23.08.2016

Code: mrl_azm170_jp

Operating instructions and Declaration of conformity (pl) 736 kB, 14.06.2018

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) 702 kB, 17.01.2018

Code: mrl_azm170_es

BG-test certificate (en) 260 kB, 09.12.2015

Code: z_m17p02

BG-test certificate (de) 257 kB, 09.12.2015

Code: z_m17p01

CCC certification (en) 5 MB, 26.10.2018

Code: q_371p02

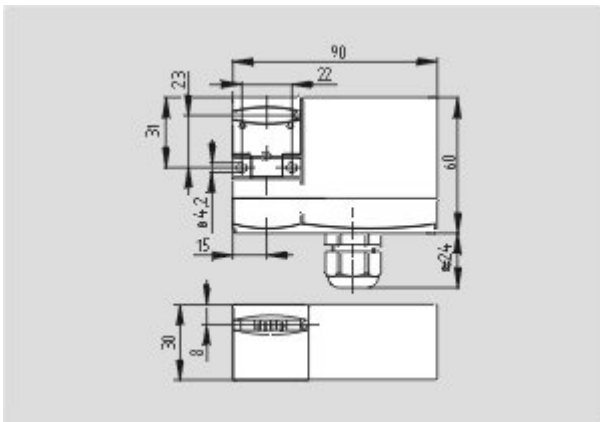
CCC certification (cn) 5 MB, 26.10.2018

Code: q_371p03

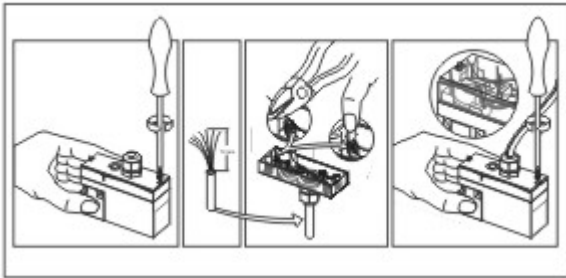
EAC certification (ru) 809 kB, 05.10.2015

Code: q_6040p17_ru

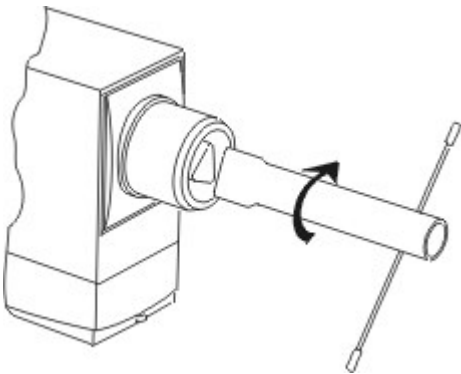
Images



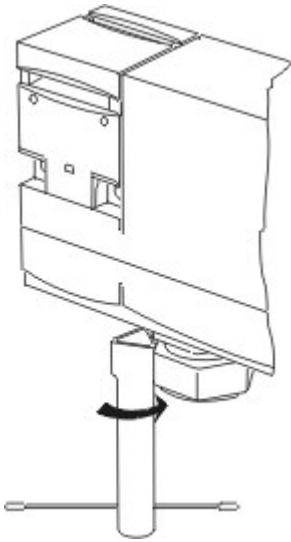
Dimensional drawing (basic component)



Assembly example



Detail photo



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 small 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

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The data and values have been checked thoroughly. Technical modifications and errors excepted.

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