


## Datasheet - AZM 170-02ZRK-2197 24 VAC/DC

Solenoid interlock / AZM 170



- 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

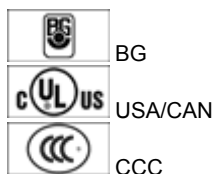
(Minor differences between the printed image and the original product may exist!)

### Ordering details

Product type description	AZM 170-02ZRK-2197 24 VAC/DC
Article number	101140818
EAN code	4030661120065

### Approval

Approval



### Classification

Standards	EN ISO 13849-1
B <sub>10d</sub> 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) 	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

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Design of electrical connection	IDC method of termination
Cable section	
- Min. Cable section	1 x 0,75 mm <sup>2</sup>
- Max. Cable section	1 x 1.0 mm <sup>2</sup> , 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 N
Positive break force	17 N
positive break travel	11 mm
Clamping force F <sub>max</sub>	1000 N
Max. Actuating speed	2 m/s

## Ambient conditions

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

## Electrical data

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Design of control element	Opener (NC)
Switching principle	Creep circuit element
Number of auxiliary contacts	0 piece
Number of safety contacts	2 piece
Power to unlock	Yes
Power to lock	No
Rated control voltage U <sub>s</sub>	24 VAC/DC
Power consumption	max. 10 W
Rated impulse withstand voltage U <sub>imp</sub>	4 kV
Rated insulation voltage U <sub>i</sub>	250 V
Thermal test current I <sub>the</sub>	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

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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	84 mm
- Length of sensor	30 mm

## notice

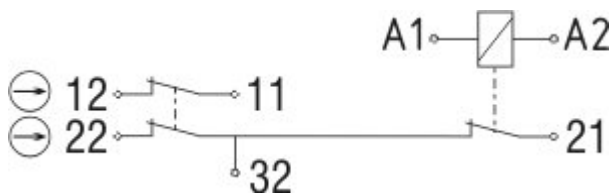
This type termination (IDC) method enables simple connection of flexible conductors without the need for the use of conductor ferrules

Individual coding available on request

Manual release from side

- 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

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The applicable ordering suffix is added at the end of the part number of the safety switch.  
Order example: AZM 170-02ZRK-2197 24 VAC/DC-1637

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

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## Ordering code

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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 <sub>s</sub> 24 VAC/DC	
110VAC	U <sub>s</sub> 110 VAC	
230VAC	U <sub>s</sub> 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)	

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

## Documents

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**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)** 576 kB, 11.07.2013

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)** 469 kB, 21.09.2012

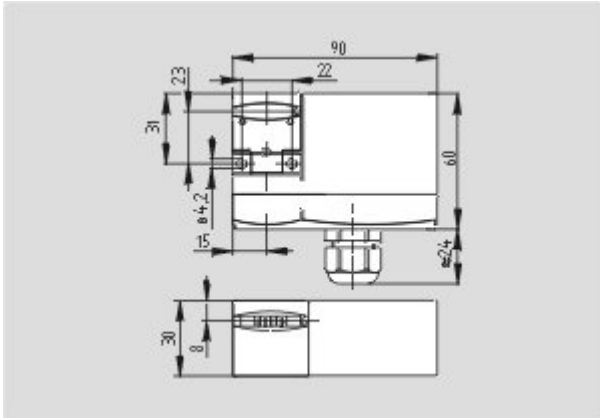
Code: q\_371p02

**CCC certification (cn)** 470 kB, 21.09.2012

Code: q\_371p03

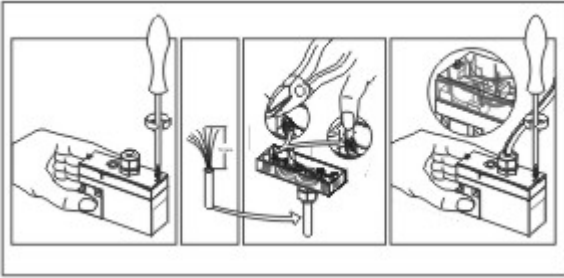
## Images

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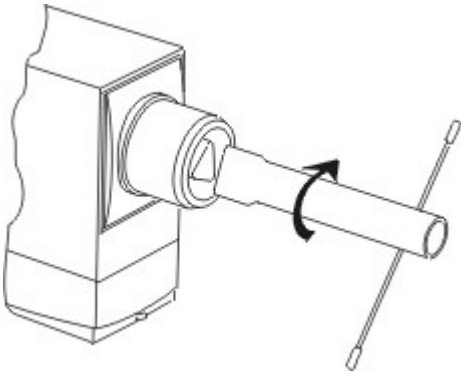
Dimensional drawing (basic component)

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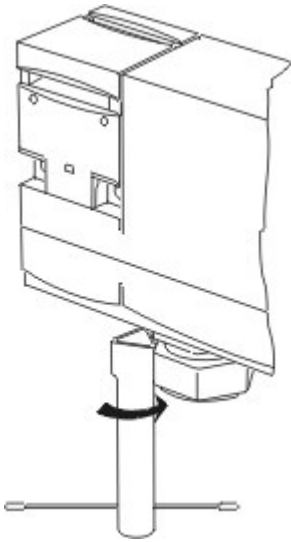
Assembly example

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Detail photo

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Detail photo

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## System components

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### Actuator



**101122893 - AZ 17/170-B1**

- Particularly suitable for sliding doors



**1137406 - AZ 17/170-B1-2245**

- Damps vibration on guard device



**1122895 - AZ 17/170-B5**

- Particularly suitable for hinged guards (front mounting)



**1139788 - AZ 17/170-B11**

- Particularly suitable for sliding doors



**1139789 - AZ 17/170-B15**

- Particularly suitable for hinged guards (front mounting)



#### 101123391 - AZM 170-B6

- For very small actuating radii
- The direction of actuation can be selected by applicable insertion of the insert

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#### Accessories



#### 1208493 - 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.

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#### 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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