


## Datasheet - AZM 170-02ZRK-2197 110 VAC

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

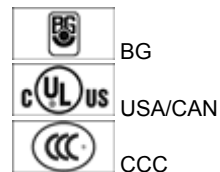
(Minor differences between the printed image and the original product may exist!)

### Ordering details

Product type description	AZM 170-02ZRK-2197 110 VAC
Article number	101144235
EAN code	4030661131931
eCl@ss	27-27-26-03

### Approval

Approval



### Classification

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

### Global Properties

Product name	AZM 170
Standards	EN 60947-5-1, BG-GS-ET-19

Compliance with the Directives (Y/N) 

Number of actuating directions

Active principle

Duty cycle

Materials

- Material of the housings
- Material of the contacts

Housing coating

Weight

Yes

2 piece

electromechanical

Magnet 100 %

Plastic, glass-fibre reinforced thermoplastic, self-extinguishing

Silver

None

310 g

## Mechanical data

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Design of electrical connection

Cable section

- Min. Cable section
- Max. Cable section

Mechanical life

Emergency unlocking device (Y/N)

Manual release (Y/N)

- bottom
- right

Emergency release (Y/N)

Latching force

Positive break force

positive break travel

Clamping force  $F_{\max}$

Max. Actuating speed

IDC method of termination

1 x 0,75 mm<sup>2</sup>

1 x 1.0 mm<sup>2</sup>, flexible

> 1.000.000 operations

No

Yes

No

30 N

17 N

11 mm

1000 N

2 m/s

## Ambient conditions

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Ambient temperature

- Min. environmental temperature
- Max. environmental temperature

Protection class

-25 °C

+60 °C

IP67 to IEC/EN 60529

## Electrical data

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Design of control element

notice

Switching principle

Number of auxiliary contacts

Number of safety contacts

Power to unlock

Power to lock

Rated control voltage  $U_s$

Power consumption

Rated impulse withstand voltage  $U_{\text{imp}}$

Rated insulation voltage  $U_i$

Thermal test current  $I_{\text{the}}$

Utilisation category

Max. fuse rating

Opener (NC)

change-over contact with double break, type Zb or 2 NC contacts, with galvanically separated contact bridges

Creep circuit element

0 piece

2 piece

Yes

No

110 VAC

max. 10 W

4 kV

250 V

10 A

AC-15: 230 V / 4 A, DC-13: 24 V / 4 A

6 A gG D-fuse

## ATEX

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

Miscellaneous data

Applications	<div> sliding safety guard, </div> <div> removable guard, </div> <div> hinged safety guard </div>
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Dimensions

Dimensions of the sensor	
- Width of sensor	90 mm
- Height of sensor	84 mm
- Length of sensor	30 mm

notice

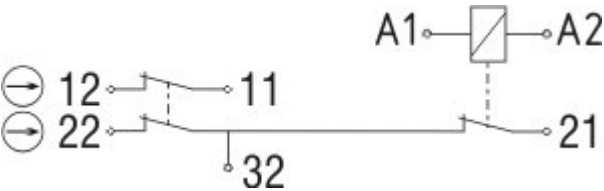
This type termination (IDC) method enables simple connetion of flexible conductors without the need for the use of conductor ferrules

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 170-02ZRK-2197 110 VAC-**1637**

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

### Ordering code

AZM 170(1)-(2)Z(3)K(4)-(5)-(6)-(7)	
(1)	
without	IDC method of termination
<b>SK</b>	Screw connection
(2)	
<b>11</b>	1 Normally open contact (NO) / 1 Opener (NC)
<b>02</b>	2 Opener (NC)
<b>12/0.0</b>	1 Normally open contact (NO), 2 Opener (NC) / -
(3)	
without	Latching force 5 N
<b>R</b>	Latching force 30 N
<b>I</b>	Individual coding
(4)	
without	Power to unlock
<b>A</b>	Power to lock
(5)	
without	cable gland
<b>ST</b>	Connector M12 x 1
<b>ST-2431</b>	Connector M12 x 1, Individual solenoid monitoring
(6)	
<b>24VAC/DC</b>	U <sub>s</sub> 24 VAC/DC
<b>110VAC</b>	U <sub>s</sub> 110 VAC
<b>230VAC</b>	U <sub>s</sub> 230 VAC
(7)	
without	Manual release
<b>2197</b>	Manual release from side (Power to unlock)
<b>1637</b>	gold-plated contacts
	<b>AZM 170ST and AZM 170SK</b>
	<b>AZM 170ST-(1)Z(2)K(3)-(4)-(5)-024</b>
	<b>AZM 170SK-(1)Z(2)K(3)-(4)-(5)-024</b>
(1)	
<b>11/11</b>	1 Normally open contact (NO), 1 Opener (NC) / 1 Normally open contact (NO), 1 Opener (NC)

<b>11/02</b>	1 Normally open contact (NO), 1 Opener (NC) / 2 Opener (NC)
<b>12/00</b>	1 Normally open contact (NO), 2 Opener (NC) / -
<b>12/11</b>	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) 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

CCC certification (cn) 607 kB, 23.06.2014

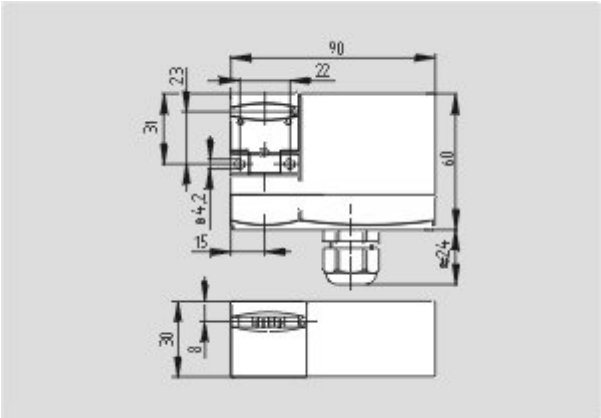
Code: q\_371p03

Gost certification (ru) 2 MB, 07.07.2011

Code: q\_az1p01

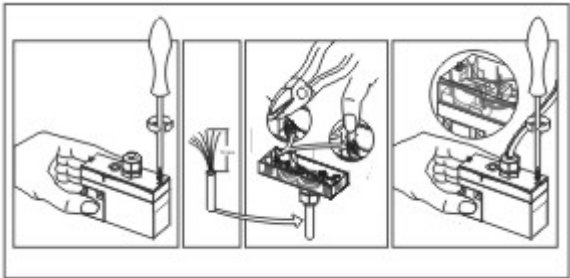
Images

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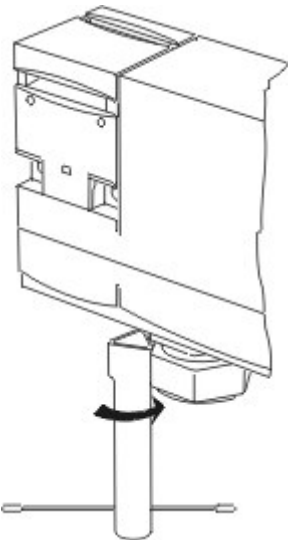
Dimensional drawing (basic component)

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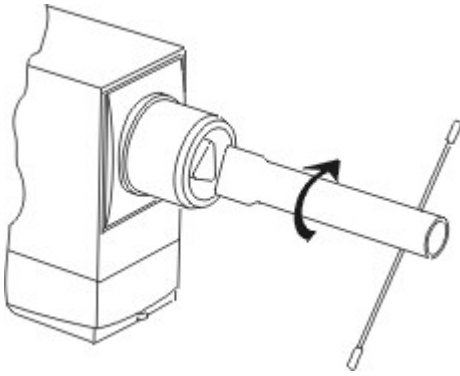
Assembly example

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Detail photo

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Detail photo

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

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## 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.

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## Connector



### A-K4M12

- Pre-wired cable
- 4-pole



### S-K4M12

- Connector without cable
- 4-pole

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K.A. Schmersal GmbH & Co. KG, Möddinghofe 30, D-42279 Wuppertal

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

Generiert am 14.08.2015 - 23:15:28h Kasbase 3.1.12.F.64l