

## Datasheet - AZM 170-02ZRKA 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

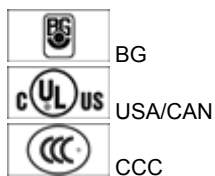
(Minor differences between the printed image and the original product may exist!)

### Ordering details

Product type description	AZM 170-02ZRKA 24 VAC/DC
Article number	101141020
EAN code	4030661120294

### 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	278 g

### Mechanical data

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
Manual release (Y/N)	Yes
- bottom	
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

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	Opener (NC)
Switching principle	Creep circuit element
Number of auxiliary contacts	0 piece
Number of safety contacts	2 piece
Power to unlock	No
Power to lock	Yes
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

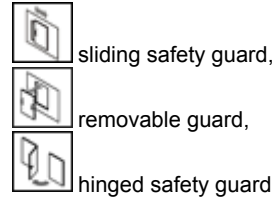
### ATEX

Explosion protection categories for gases  
Explosion protected category for dusts

None  
None

### Miscellaneous data

Applications



### Dimensions

Dimensions of the sensor

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

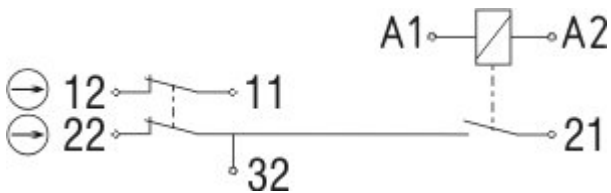
### notice

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

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

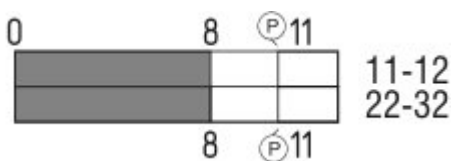
### Diagram



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
- Ⓟ 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 170-02ZRKA 24 VAC/DC-**1637**

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

## Ordering code

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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** (da) 582 kB, 07.08.2012

Code: mrl\_azm170\_da

**Operating instructions and Declaration of conformity** (it) 645 kB, 09.04.2010

Code: mrl\_azm170\_it

**Operating instructions and Declaration of conformity** (es) 665 kB, 25.03.2010

Code: mrl\_azm170\_es

**Operating instructions and Declaration of conformity** (en) 746 kB, 12.03.2010

Code: mrl\_azm170\_en

**Operating instructions and Declaration of conformity** (fr) 670 kB, 01.07.2010

Code: mrl\_azm170\_fr

**Operating instructions and Declaration of conformity** (nl) 720 kB, 23.09.2010

Code: mrl\_azm170\_nl

**Operating instructions and Declaration of conformity** (jp) 709 kB, 14.04.2011

Code: mrl\_azm170\_jp

**Operating instructions and Declaration of conformity** (de) 573 kB, 18.02.2011

Code: mrl\_azm170\_de

**BG-test certificate** (de) 589 kB, 05.01.2011

Code: z\_m17p01

**BG-test certificate** (en) 574 kB, 05.01.2011

Code: z\_m17p02

**CCC certification** (en) 469 kB, 21.09.2012

Code: q\_371p02

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

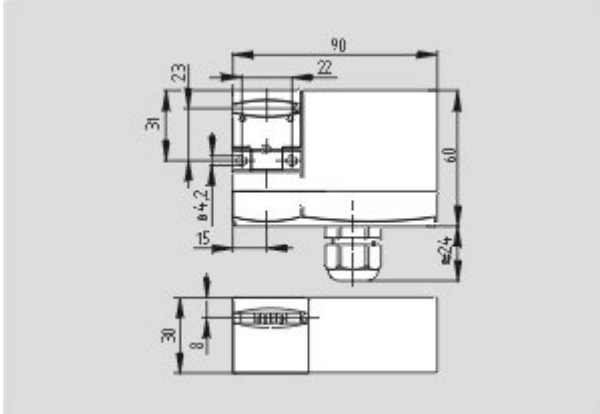
Code: q\_371p03

Gost certification (ru) 2 MB, 07.07.2011

Code: q\_az1p01

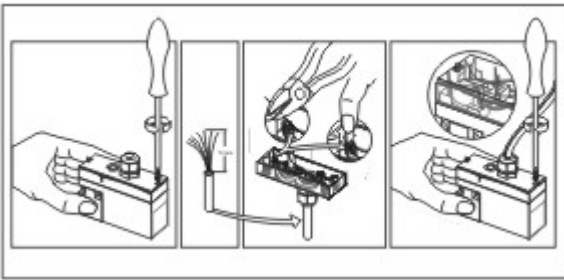
## Images

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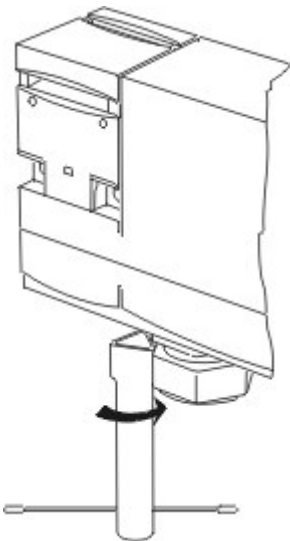
Dimensional drawing (basic component)

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Assembly example

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Detail photo

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## System components

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### Actuator

101122893 - AZ 17/170-B1

- Particularly suitable for sliding doors



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

- Damps vibration on guard device



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

- Particularly suitable for hinged guards (front mounting)



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

- Particularly suitable for sliding doors



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

- Particularly suitable for hinged guards (front mounting)



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**101123391 - AZM 170-B6**

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

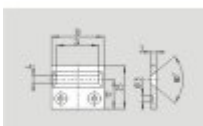


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**Accessories**

**1208493 - AZM 170-B CENTERING GUIDE**

- for AZ 17 and AZM 170



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**101100887 - TRIANGULAR KEY 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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