

## Datasheet - AZM 170-11ZRK 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

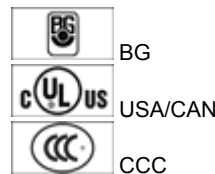
(Minor differences between the printed image and the original product may exist!)

### Ordering details

Product type description	AZM 170-11ZRK 24 VAC/DC
Article number	1140788
EAN code	4030661119762

### Approval

Approval




### Classification

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

## Global Properties

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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	270 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
Manual release (Y/N)	Yes
- bottom	
Emergency release (Y/N)	No
Latching force	30 N
Positive break force	8.5 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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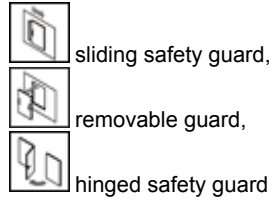
Design of control element	Normally open contact (NO), Opener (NC)
Switching principle	Creep circuit element
Number of auxiliary contacts	1 piece
Number of safety contacts	1 piece
Power to unlock	Yes
Power to lock	No
Rated control voltage U <sub>s</sub>	24 VAC/DC
Power consumption	max. 10 W
Rated impulse 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

Explosion protection categories for gases	None
Explosion protected category for dusts	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

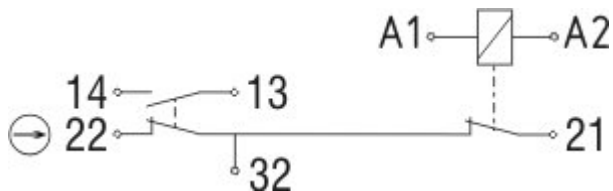
This type termination (IDC) method enables simple connection of flexible conductors without the need for the use of conductor ferrules

Individual coding available on request

Manual release

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

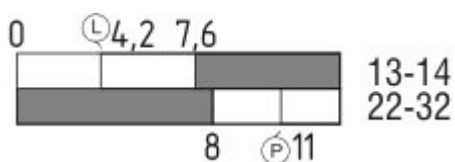
## Diagram



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

The applicable ordering suffix is added at the end of the part number of the safety switch.

Order example: AZM 170-11ZRK 24 VAC/DC-**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

**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)  
**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

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

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** (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

**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) 747 kB, 12.12.2006

Code: q\_371p02

**CCC certification** (cn) 725 kB, 12.12.2006

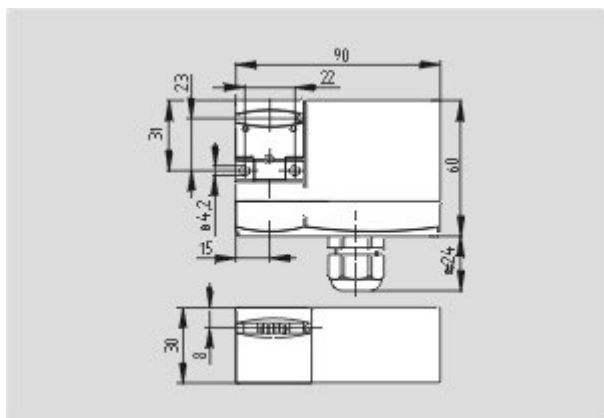
Code: q\_371p03

**Gost certification** (ru) 2 MB, 07.07.2011

Code: q\_az1p01

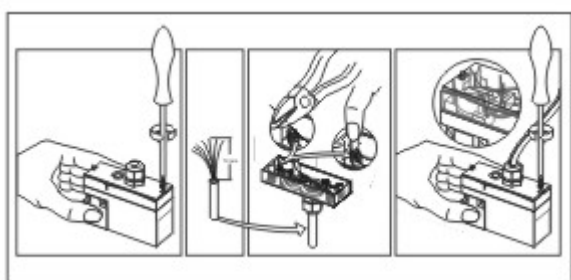
## Images

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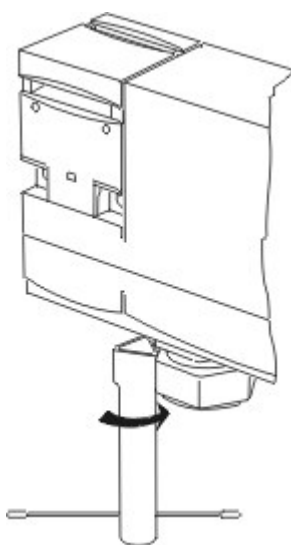
Dimensional drawing (basic component)

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Assembly example

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Detail photo

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## System components

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### Actuator



1122893 - AZ 17/170-B1

- Particularly suitable for sliding doors
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**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**

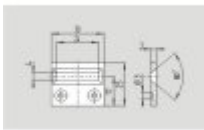
- Particularly suitable for hinged guards (front mounting)



**1123391 - AZM 170-B6**

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

**Accessories**



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

- for AZ 17 and AZM 170



**1100887 - TRIANGULAR KEY 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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