

## Datasheet - AZM 170SK-11ZRKA 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
- Screw connection
- Manual release

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

### Ordering details

Product type description	AZM 170SK-11ZRKA 24 VAC/DC
Article number	1144262
EAN code	4030661132105

### Classification

Standards	EN ISO 13849-1
B <sub>10d</sub> Opener (NC)	2.000.000
Mission time	20 Years

notice

$$MTTF_d = \frac{B_{10d}}{0,1 \times n_{op}}$$

$$n_{op} = \frac{d_{op} \times h_{op} \times 3600 \text{ s/h}}{t_{zyklus}}$$

### 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	300 g

## Mechanical data

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Design of electrical connection	Screw connection
Cable section	
- Min. Cable section	1 x 0,75 mm <sup>2</sup>
- Max. Cable section	1 x 1.5 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	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

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

## Miscellaneous data

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Applications



## Dimensions

### Dimensions of the sensor

- Width of sensor	90 mm
- Height of sensor	100.5 mm
- Length of sensor	30 mm

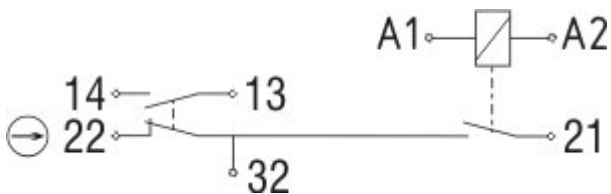
## notice

Individual coding available on request

Manual release

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

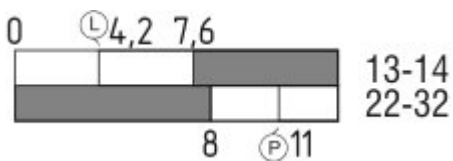
## Diagram



### 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 170SK-11ZRKA 24 VAC/DC-1637

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...-1637 0,3 µm gold-plated contacts

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...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)

**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** (it) 571 kB, 27.11.2009

[http://www.schmersal.net/Bilddata/Azm/Pdf/Azm170/bedien/AZM170\\_170i/IT/mrl\\_azm170\\_170i\\_it.pdf](http://www.schmersal.net/Bilddata/Azm/Pdf/Azm170/bedien/AZM170_170i/IT/mrl_azm170_170i_it.pdf)

**Operating instructions and Declaration of conformity** (es) 592 kB, 27.11.2009

[http://www.schmersal.net/Bilddata/Azm/Pdf/Azm170/bedien/AZM170\\_170i/ES/mrl\\_azm170\\_170i\\_es.pdf](http://www.schmersal.net/Bilddata/Azm/Pdf/Azm170/bedien/AZM170_170i/ES/mrl_azm170_170i_es.pdf)

**Operating instructions and Declaration of conformity** (en) 671 kB, 27.11.2009

[http://www.schmersal.net/Bilddata/Azm/Pdf/Azm170/bedien/AZM170\\_170i/EN/mrl\\_azm170\\_170i\\_en.pdf](http://www.schmersal.net/Bilddata/Azm/Pdf/Azm170/bedien/AZM170_170i/EN/mrl_azm170_170i_en.pdf)

**Operating instructions and Declaration of conformity** (nl) 584 kB, 27.11.2009

[http://www.schmersal.net/Bilddata/Azm/Pdf/Azm170/bedien/AZM170\\_170i/NL/mrl\\_azm170\\_170i\\_nl.pdf](http://www.schmersal.net/Bilddata/Azm/Pdf/Azm170/bedien/AZM170_170i/NL/mrl_azm170_170i_nl.pdf)

**Operating instructions and Declaration of conformity** (jp) 769 kB, 27.11.2009

[http://www.schmersal.net/Bilddata/Azm/Pdf/Azm170/bedien/AZM170\\_170i/JP/mrl\\_azm170\\_170i\\_jp.pdf](http://www.schmersal.net/Bilddata/Azm/Pdf/Azm170/bedien/AZM170_170i/JP/mrl_azm170_170i_jp.pdf)

**Operating instructions and Declaration of conformity** (de) 572 kB, 27.11.2009

[http://www.schmersal.net/Bilddata/Azm/Pdf/Azm170/bedien/AZM170\\_170i/DE/mrl\\_azm170\\_170i\\_de.pdf](http://www.schmersal.net/Bilddata/Azm/Pdf/Azm170/bedien/AZM170_170i/DE/mrl_azm170_170i_de.pdf)

**Operating instructions and Declaration of conformity** (fr) 592 kB, 27.11.2009

[http://www.schmersal.net/Bilddata/Azm/Pdf/Azm170/bedien/AZM170\\_170i/FR/mrl\\_azm170\\_170i\\_fr.pdf](http://www.schmersal.net/Bilddata/Azm/Pdf/Azm170/bedien/AZM170_170i/FR/mrl_azm170_170i_fr.pdf)

**BG-test certificate** (en) 826 kB, 25.07.2006

[http://www.schmersal.net/Bilddata/Azm/Pdf/Azm170/baumuste/z\\_m17p02.pdf](http://www.schmersal.net/Bilddata/Azm/Pdf/Azm170/baumuste/z_m17p02.pdf)

**BG-test certificate** (de) 830 kB, 25.07.2006

[http://www.schmersal.net/Bilddata/Azm/Pdf/Azm170/baumuste/z\\_m17p01.pdf](http://www.schmersal.net/Bilddata/Azm/Pdf/Azm170/baumuste/z_m17p01.pdf)

**CCC certification** (en) 747 kB, 12.12.2006

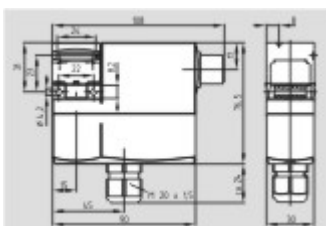
[http://www.schmersal.net/Bilddata/Azm/Pdf/Azm161/zertifikat/q\\_371p02.pdf](http://www.schmersal.net/Bilddata/Azm/Pdf/Azm161/zertifikat/q_371p02.pdf)

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

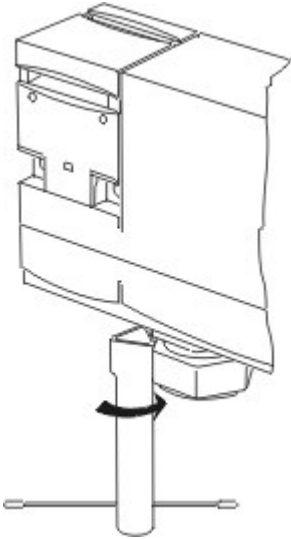
[http://www.schmersal.net/Bilddata/Azm/Pdf/Azm161/zertifikat/q\\_371p03.pdf](http://www.schmersal.net/Bilddata/Azm/Pdf/Azm161/zertifikat/q_371p03.pdf)

## Images

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Dimensional drawing (basic component)



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

- Particularly suitable for hinged guards (front mounting)
- 



#### **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)

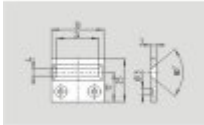


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**1123391 - AZM 170-B6**

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

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