


# Datasheet - AZM 170-11ZRKA 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 170-11ZRKA 110 VAC
Article number	1136318
EAN code	4030661056241

## Approval

Approval	 BG
	 USA/CAN
	 CCC

## 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

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	272 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	No
Power to lock	Yes
Rated control voltage U <sub>s</sub>	110 VAC
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  
Explosion protected category for dusts

None  
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

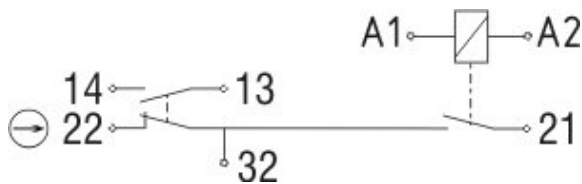
### notice

Individual coding available on request

Manual release

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

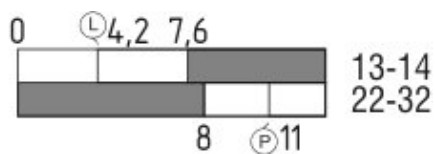
### Diagram



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 170-11ZRKA 110 VAC-**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)  
**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)**

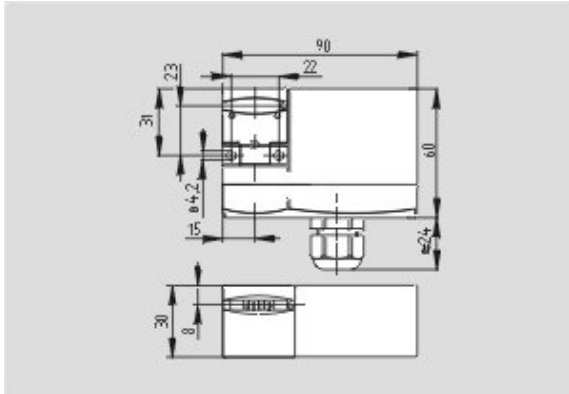
**1637** gold-plated contacts

**(5)**

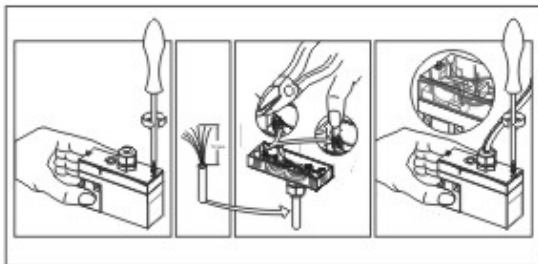
**2197** Manual release for Power to unlock

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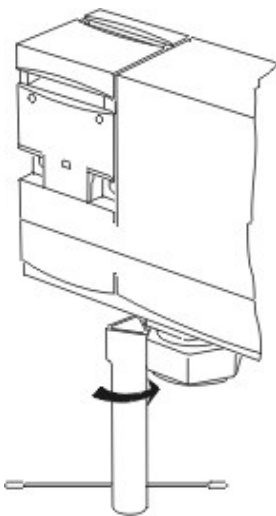
## Images



Dimensional drawing (basic component)



Assembly example



Detail photo

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## System components

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## Actuator



### 1122893 - 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)

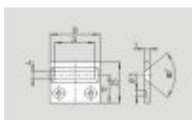


### 1123391 - AZM 170-B6

- 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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#### 1100887 - 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