



## AZM 170-02ZRK-ST-2197 24VAC/DC

- Manual release from side
- Connector M12, 4-pole
- Thermoplastic enclosure
- Double-insulated
- Compact design
- Interlock with protection against incorrect locking.
- Long life
- High holding force

## Data

### Ordering data

Product type description	AZM 170-02ZRK-ST-2197 24VAC/DC
Article number (order number)	101141430
EAN (European Article Number)	4030661121963
eCl@ss number, version 12.0	27-27-26-03
eCl@ss number, version 11.0	27-27-26-03
eCl@ss number, version 9.0	27-27-26-03
ETIM number, version 7.0	EC002593
ETIM number, version 6.0	EC002593

### Approvals - Standards

Certificates	BG cULus CCC
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### General data

Standards	EN ISO 13849-1 EN ISO 14119 EN IEC 60947-5-1
Coding level according to EN ISO 14119	Low
Working principle	electromechanical
Housing material	Plastic, glass-fibre reinforced thermoplastic, self-extinguishing
Gross weight	285 g

### General data - Features

Power to unlock	Yes
Manual release	Yes
Number of actuating directions	2
Number of safety contacts	2

### Safety classification

Standards	EN ISO 13849-1
Performance Level, up to	c
Category	1
B <sub>10D</sub> Normally-closed contact (NC)	2,000,000 Operations
Note	Electrical life on request.
B <sub>10D</sub> Normally-open contact (NO)	1,000,000 Operations
Note	at 10% I <sub>e</sub> and ohmic load
Mission time	20 Year(s)

### Safety classification - Fault exclusion

Please note:	Can be used when fault exclusion for dangerous damage to the 1-channel mechanism is permissible and sufficient protection against manipulation is guaranteed.
Performance Level, up to	d
Category	3
Note	for 2-channel use and with suitable logic unit.

Mission time 20 Year(s)

## Mechanical data

Mechanical life, minimum	1,000,000 Operations
Holding force $F_{Zh}$ in accordance with EN ISO 14119	1,000 N
Holding force $F_{max}$ , maximum	1,300 N
Latching force	30 N
Positive break travel	11 mm
Positive break force per NC contact, minimum	8.5 N
Positive break force, minimum	17 N
Actuating speed, maximum	2 m/s
Mounting	Screws
Type of the fixing screws	2x M5
Tightening torque of the fastening screws for the housing cover, minimum	0.7 Nm
Tightening torque of the fastening screws for the housing cover, maximum	1 Nm
Note	Torx T10

## Mechanical data - Connection technique

Termination	Connector plug M12, 4-pole, (A-coding) Connector plug M12, 4-pole, (B-coding)
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## Mechanical data - Dimensions

Length of sensor	30 mm
Width of sensor	108 mm
Height of sensor	75.5 mm

## Ambient conditions

Degree of protection	IP67
Ambient temperature	-25 ... +60 °C
Storage and transport temperature, minimum	-25 °C
Storage and transport temperature, maximum	+85 °C
Protection class	II
Permissible installation altitude above sea level, maximum	2,000 m

### Ambient conditions - Insulation values

Rated insulation voltage $U_i$	250 VAC
Rated impulse withstand voltage $U_{imp}$	2.5 kV
Overvoltage category	III
Degree of pollution	3

### Electrical data

Thermal test current	4 A
Rated control voltage	24 VAC/DC
Required rated short-circuit current	1,000 A
Electrical power consumption, maximum	12 W
Switching element	Opener (NC)
Note (Switching element)	Change-over contact with double break, type Zb or 2 NC contacts, with galvanically separated contact bridges
Switching principle	slow action, positive break NC contact
Switching frequency	1,000 /h
Material of the contacts, electrical	Silver

### Electrical data - Magnet control

Magnet switch-on time	100 %
Test pulse duration, maximum	5 ms

Test pulse interval, minimum 50 ms

### Electrical data - Safety contacts

Current, Utilisation category AC-15 4 A  
Voltage, Utilisation category DC-13 24 VDC  
Current, Utilisation category DC-13 4 A  
Note, Utilisation category DC-13 Connector 4-pole

### Electrical data - Auxiliary contacts

Note, Utilisation category DC-13 Connector 4-pin

### Other data

Note (applications) sliding safety guard  
removable guard  
hinged safety guard

### Scope of delivery

Scope of delivery Actuator must be ordered separately.

### Note

Note (Manual release) right  
bottom  
For manual release using M5 triangular key, available as accessory  
Additional manual release on side

### Ordering code

Product type description:  
AZM 170(1)-(2)Z(3)K(4)-(5)-(6)-(7)-(8)

(1)

**without**

Cut clamps

**SK**

Screw connection

(2)		
<b>11</b>		1 NO contacts/1 NC contact
<b>02</b>		2 NC contact
(3)		
<b>without</b>		Latching force 5 N
<b>R</b>		Latching force 30 N
(4)		
<b>without</b>		Power to unlock
<b>A</b>		Power to lock
(5)		
<b>without</b>		Cable entry M20
<b>ST</b>		2 connector, M12, 4-pin
<b>ST-2431</b>		As well as ST; individual solenoid monitoring
<b>ST8</b>		Connector M12 8-pole
(6)		
<b>24VAC/DC</b>		Us 24 VAC/DC
<b>110VAC</b>		Us 110 VAC
<b>230VAC</b>		Us 230 VAC
(7)		
<b>1637</b>		Gold-plated contacts
(8)		
<b>without</b>		Manual release
<b>2197</b>		Manual release from side (Standard in case of conector and power to unlock versions)

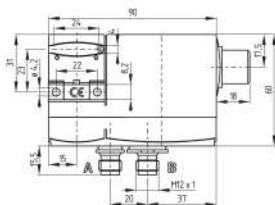
## Pictures

**Product picture (catalogue individual photo)**



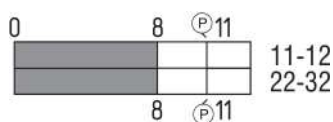
ID: kazm1f71  
 | 49.3 kB | .png | 74.083 x 69.85 mm - 210 x 198 px - 72 dpi  
 | 476.9 kB | .jpg | 243.769 x 229.658 mm - 691 x 651 px - 72 dpi  
 | 84.8 kB | .jpg | 123.472 x 116.417 mm - 350 x 330 px - 72 dpi

## Dimensional drawing basic component



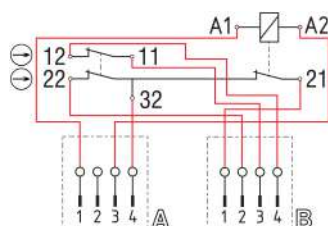
ID: 1azm1g04  
 | 44.0 kB | .cdr |  
 | 9.1 kB | .png | 74.083 x 51.506 mm - 210 x 146 px - 72 dpi  
 | 117.4 kB | .jpg | 352.778 x 245.181 mm - 1000 x 695 px - 72 dpi

## Switch travel diagram



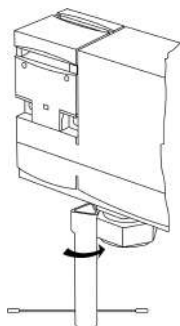
ID: kazm1s01  
 | 19.5 kB | .cdr |  
 | 1.8 kB | .png | 74.083 x 26.458 mm - 210 x 75 px - 72 dpi  
 | 49.4 kB | .jpg | 352.778 x 125.236 mm - 1000 x 355 px - 72 dpi

## Diagram



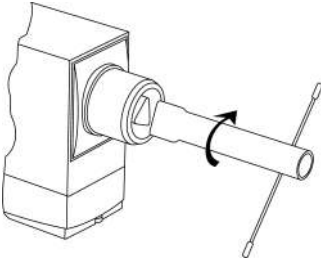
ID: kazm1k14  
 | 46.9 kB | .cdr |  
 | 135.9 kB | .jpg | 352.778 x 240.947 mm - 1000 x 683 px - 72 dpi  
 | 5.7 kB | .png | 74.083 x 50.447 mm - 210 x 143 px - 72 dpi

## Operating principle



ID: kazm1a70  
 | 213.5 kB | .jpg | 352.778 x 656.519 mm - 1000 x 1861 px - 72 dpi  
 | 6.5 kB | .png | 74.083 x 137.583 mm - 210 x 390 px - 72 dpi

## Operating principle



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| 113.1 kB | .jpg | 352.778 x 280.811 mm - 1000 x 796 px - 72 dpi

| 4.6 kB | .png | 74.083 x 58.914 mm - 210 x 167 px - 72 dpi

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The details and data referred to have been carefully checked. Images may diverge from original. Further technical data can be found in the manual. Technical amendments and errors possible.

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