DATASHEET



AZM 170-11ZK 24VAC/DC

- 1 Cable entry M 20 x 1.5
- IDC method of termination
- Manual release
- Thermoplastic enclosure
- Double-insulated
- Compact design
- Interlock with protection against incorrect locking.
- Long life
- High holding force

Data

Ordering data

Product type description	AZM 170-11ZK 24VAC/DC
Article number (order number)	101141639
EAN (European Article Number)	4030661122915
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

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	280 g

General data - Features

Power to unlock	Yes
Manual release	Yes
Number of actuating directions	2
Number of auxiliary contacts	1
Number of safety contacts	1

Safety classification

Standards	EN ISO 13849-1
Performance Level, up to	c
Category	1
B_{10D} Normally-closed contact (NC)	2,000,000 Operations
Note	Electrical life on request.
B_{10D} Normally-open contact (NO)	1,000,000 Operations
Note	at 10% I_e and ohmic load
Mission time	20 Year(s)

Safety classification - Safety outputs

Note (B_{10D} Normally open contact (NO))	at 10% I_e and ohmic load

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	5 N
Positive break travel	11 mm
Positive break force per NC contact, minimum	8.5 N
Positive break force, minimum	8.5 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	IDC method of termination
Cable section, minimum	0.75 mm²
Cable section, maximum	1 mm²
Allowed type of cable	flexible

Mechanical data - Dimensions

Length of sensor	30 mm
Width of sensor	90 mm
Height of sensor	84 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}	4 kV
Overvoltage category	III
Degree of pollution	3

Electrical data

Thermal test current	6 A
Rated control voltage	24 VAC/DC
Required rated short-circuit current	1,000 A
Electrical power consumption, maximum	12 W
Switching element	NO contact, NC contact
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

Voltage, Utilisation category AC-15	230 VAC
Current, Utilisation category AC-15	4 A
Voltage, Utilisation category DC-13	24 VDC
Current, Utilisation category DC-13	2.5 A

Electrical data - Auxiliary contacts

Voltage, Utilisation category AC-15	230 VAC
Current, Utilisation category AC-15	4 A
Voltage, Utilisation category DC-13	24 VDC

Current, Utilisation category DC-13	2.5 A

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 (General)	This type termination (IDC) method enables simple connetion of flexible conductors without the need for the use of conductor ferrules
Note (Manual release)	bottom For manual release using M5 triangular key, available as accessory

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)

11	1 NO contacts/1 NC contact
02	2 NC contact

(3)

without	Latching force 5 N
R	Latching force 30 N

(4)

without	Power to unlock
A	Power to lock

(5)

without	Cable entry M20
ST	2 connector, M12, 4-pin
ST-2431	As well as ST; individual solenoid monitoring
ST8	Connector M12 8-pole

(6)

24VAC/DC	Us 24 VAC/DC
110VAC	Us 110 VAC
230VAC	Us 230 VAC

(7)

1637	Gold-plated contacts

(8)

without	Manual release
2197	Manual release from side (Standard in case of conector and power to unlock versions)

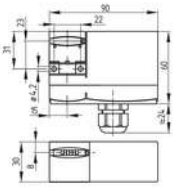
Pictures

Product picture (catalogue individual photo)



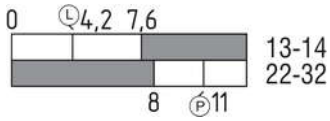
ID: kazm1f04
| 620.3 kB | .jpg | 352.425 x 356.658 mm - 999 x 1011 px - 72 dpi
| 48.7 kB | .png | 74.083 x 74.789 mm - 210 x 212 px - 72 dpi
| 71.0 kB | .jpg | 122.061 x 123.472 mm - 346 x 350 px - 72 dpi

Dimensional drawing basic component



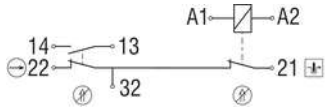
ID: 1azm1g03
| 96.8 kB | .cdr |
| 3.7 kB | .png | 74.083 x 51.506 mm - 210 x 146 px - 72 dpi
| 75.8 kB | .jpg | 352.778 x 245.886 mm - 1000 x 697 px - 72 dpi

Switch travel diagram



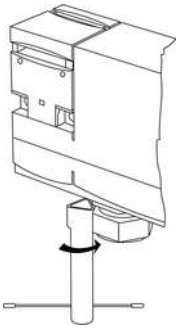
ID: kazm1s02
| 19.7 kB | .cdr |
| 2.0 kB | .png | 74.083 x 25.753 mm - 210 x 73 px - 72 dpi
| 50.1 kB | .jpg | 352.778 x 123.119 mm - 1000 x 349 px - 72 dpi

Diagram



ID: kazm1k12
| 52.5 kB | .ai | 297 x 210.002 mm - 841 x 595 px - 72 dpi
| 45.9 kB | .jpg | 352.778 x 112.183 mm - 1000 x 318 px - 72 dpi
| 2.5 kB | .png | 74.083 x 23.636 mm - 210 x 67 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

Assembly example

ID: kazm1m06
| 98.4 kB | .cdr |

Schmersal, Inc., 15 Skyline Drive, Hawthorne, NY 10532
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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