DATASHEET



AZM 170ST-12/02ZK-2197 24VAC/DC

- Manual release from side
- connector, can be rotated
- Thermoplastic enclosure
- Double-insulated
- Compact design
- Interlock with protection against incorrect locking.
- Long life
- High holding force

Data

Ordering data

Product type description	AZM 170ST-12/02ZK-2197 24VAC/DC
Article number (order number)	101186191
EAN (European Article Number)	4030661333403
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	IFA 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	308 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	4

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	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, 8-pole, (A-coding) Connector plug M12, 4-pole, (B-coding)

Mechanical data - Dimensions

Length of sensor	30 mm
Width of sensor	108 mm
Height of sensor	92.5 mm

Ambient conditions

Degree of protection	IP67
Ambient temperature	-25 ... +60 °C
Storage and transport temperature	-25 ... +85 °C
Note (Relative humidity)	non-condensing non-icing
Protection class	II
Permissible installation altitude above sea level, maximum	2,000 m

Ambient conditions - Insulation values

Rated insulation voltage U_i	60 V
Rated impulse withstand voltage U_{imp}	0.8 kV
Overvoltage category	III
Degree of pollution	3

Electrical data

Thermal test current	2 A
Rated control voltage	24 VAC/DC
Required rated short-circuit current	1,000 A
Electrical power consumption, maximum	12 W
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
Maximum 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	2 A

Electrical data - Auxiliary contacts

Current, Utilisation category AC-15	4 A
Voltage, Utilisation category DC-13	24 VDC
Current, Utilisation category DC-13	2 A

Other data

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

Scope of delivery

Scope of delivery	Actuator must be ordered separately. Slot sealing plugs

Note

Note (Manual release)	right For manual release using M5 triangular key, available as accessory Additional manual release on side For manual release using triangular key M3 (included in delivery)

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 contact/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)

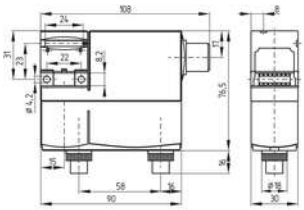
Pictures

Product picture (catalogue individual photo)



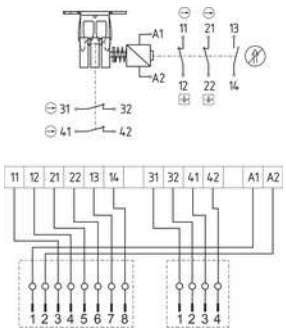
ID: sazm1f52
| 241.1 kB | .jpg | 287.161 x 234.597 mm - 814 x 665 px - 72 dpi
| 28.0 kB | .png | 74.083 x 60.678 mm - 210 x 172 px - 72 dpi
| 45.9 kB | .jpg | 123.472 x 100.894 mm - 350 x 286 px - 72 dpi

Dimensional drawing basic component



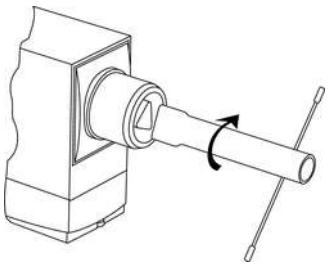
ID: 1azm1g21
| 47.6 kB | .cdr |
| 9.8 kB | .png | 74.083 x 51.506 mm - 210 x 146 px - 72 dpi
| 124.4 kB | .jpg | 352.778 x 245.181 mm - 1000 x 695 px - 72 dpi

Diagram



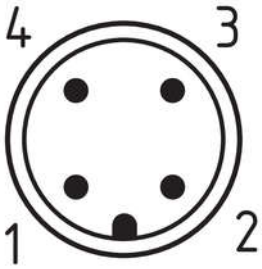
ID: kazm1k74
| 121.2 kB | .ai | 210.002 x 297 mm - 595 x 841 px - 72 dpi
| 176.9 kB | .jpg | 352.425 x 404.989 mm - 999 x 1148 px - 72 dpi
| 6.4 kB | .png | 74.083 x 85.019 mm - 210 x 241 px - 72 dpi

Operating principle



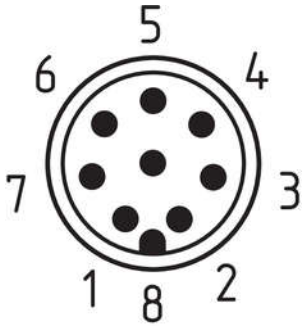
ID: kazm1a71
| 113.1 kB | .jpg | 352.778 x 280.811 mm - 1000 x 796 px - 72 dpi
| 4.6 kB | .png | 74.083 x 58.914 mm - 210 x 167 px - 72 dpi

Contact arrangement



ID: km12-k4c
| 4.2 kB | .png | 74.083 x 74.083 mm - 210 x 210 px - 72 dpi
| 113.3 kB | .jpg | 352.778 x 352.778 mm - 1000 x 1000 px - 72 dpi

Contact arrangement



ID: km23-k8b
| 5.3 kB | .png | 73.731 x 79.728 mm - 209 x 226 px - 72 dpi
| 139.8 kB | .jpg | 352.778 x 380.647 mm - 1000 x 1079 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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