



## AZM 170Z-ST-FB-ZR-2405

- Device version for connection to a Safety-Field-Box SFB
- connector plug M12, 8-pole
- Thermoplastic enclosure
- Double-insulated
- Compact design
- Interlock with protection against incorrect locking.
- Long life
- High holding force
- 90 mm x 84 mm x 30 mm

## Data

### Ordering data

Product type description	AZM 170Z-ST-FB-ZR-2405
Article number (order number)	103038467
EAN (European Article Number)	4030661546537
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

### 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	329 g

### General data - Features

Power to unlock	Yes
Emergency exit	Yes
Number of actuating directions	2
Number of auxiliary contacts	1
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)

## Safety classification - Guard locking function

Performance Level, up to	d
Category	2
PFH value	$3.01 \times 10^{-7}$ /h
Note (Performance Level)	Information for the safety classification of the guard locking function is documented in the "Operating instructions" or in the "Operation and mounting" instructions.

## 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

Connector position	Centre
Termination	Connector plug M12, 8-pole, (A-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, 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 $U_i$	Connector, 8 poles - 60 V
Rated impulse withstand voltage $U_{imp}$	0.8 kV
Overvoltage category	III
Degree of pollution	3
Rated impulse withstand voltage, connector 8-pole	0.8 kV

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

### Electrical data - Auxiliary contacts

Voltage, Utilisation category AC-15	24 VAC
Current, Utilisation category AC-15	2 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
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### Pin assignment

PIN 1	A1 Supply voltage UB
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PIN 2	X1 Safety input 1
PIN 3	A2 GND
PIN 4	Y1 Safety output 1
PIN 5	Signalling output
PIN 6	X2 Safety input 2
PIN 7	Y2 Safety output 2
PIN 8	IN Solenoid control

## Scope of delivery

Scope of delivery                      Actuator must be ordered separately.

## Note

Note (Emergency exit)                      For cases of danger  
Actuation from within the hazardous area

## Ordering code

Product type description:  
**AZM 170(1)-ST-FB-(2)(3)(4)**

(1)

**Z**    Solenoid interlock monitored<sup>Ⓢ</sup>  
(Not in power to lock version)

**B**    Actuator monitored

(2)

**R**    Latching force 5 N

**R**    Latching forcet 30 N

(3)

**A**    Power to unlock

**A**    Power to lock

(4)

2197

Manual release for Power to unlock

2405

Emergency exit

## Pictures

### Product picture (catalogue individual photo)



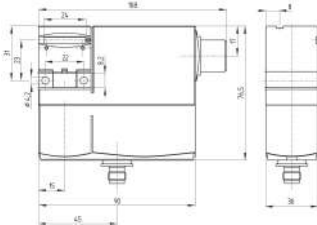
ID: kazm1f84

| 281.6 kB | .jpg | 352.778 x 253.294 mm - 1000 x 718 px - 72 dpi

| 25.8 kB | .png | 74.083 x 53.269 mm - 210 x 151 px - 72 dpi

| 44.0 kB | .jpg | 123.472 x 88.547 mm - 350 x 251 px - 72 dpi

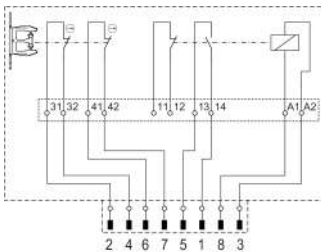
### Dimensional drawing basic component



ID: kazm170fb

| 106.8 kB | .jpg | 352.778 x 247.297 mm - 1000 x 701 px - 72 dpi

### Diagram

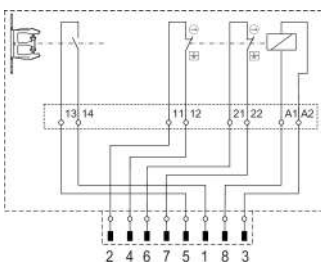


ID: kazm170fb

| 121.0 kB | .jpg | 352.778 x 273.756 mm - 1000 x 776 px - 72 dpi

| 8.8 kB | .png | 74.083 x 57.503 mm - 210 x 163 px - 72 dpi

### Diagram

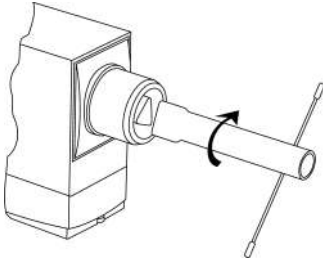


ID: kazm170fb-rs

| 125.4 kB | .jpg | 352.778 x 281.517 mm - 1000 x 798 px - 72 dpi

| 8.5 kB | .png | 74.083 x 59.267 mm - 210 x 168 px - 72 dpi

## Operating principle

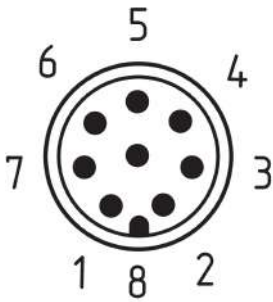


ID: kazm1a71

| 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

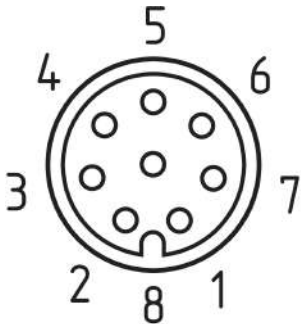


ID: km12-k8b

| 5.3 kB | .png | 73.731 x 87.489 mm - 209 x 248 px - 72 dpi

| 138.6 kB | .jpg | 352.425 x 417.689 mm - 999 x 1184 px - 72 dpi

## Contact arrangement



ID: km23-k8a

| 18.0 kB | .cdr |

| 5.5 kB | .png | 73.731 x 79.728 mm - 209 x 226 px - 72 dpi

| 155.6 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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