



## AZM 170-11ZRI-ST-B6L-2197 24VAC/DC

- Connector M12, 4-pole
- A- and B-coding of the connectors
- Manual release from side
- Double-insulated
- Individual coding
- Coding level "High" according to ISO 14119
- 90 mm x 84 mm x 30 mm
- Compact design
- Interlock with protection against incorrect locking.
- Long life
- High holding force
- left-hand model
- For very small actuating radii in line with or at 90° to the plane of the actuator

## Data

### Ordering data

Product type description	AZM 170-11ZRI-ST-B6L-2197 24VAC/DC
Article number (order number)	101144372
EAN (European Article Number)	4030661133133
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	BG-GS-ET-19 EN ISO 13849-1 EN ISO 14119 EN IEC 60947-5-1
Coding	Individual coding
Coding level according to EN ISO 14119	High
Working principle	electromechanical
Housing material	Plastic, glass-fibre reinforced thermoplastic, self-extinguishing
Material of the actuator	Stainless steel
Gross weight	305 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	d
Category	3
Mission time	20 Year(s)

## Safety classification - Safety outputs

B<sub>10D</sub> Normally-closed contact      2,000,000 Operations  
(NC)

### Safety classification - Fault exclusion

Mission time                              20 Year(s)

### Mechanical data

Actuating radius, minimum              50 mm

Mechanical life, minimum                1,000,000 Operations

Holding force  $F_{Zh}$  in accordance      1,000 N  
with EN ISO 14119

Holding force  $F_{max}$ , maximum            1,300 N

Latching force                                30 N

Positive break travel                        11 mm

Positive break force per NC                8.5 N  
contact, minimum

Positive break force, minimum            8.5 N

Actuating speed, maximum                2 m/s

Mounting                                        Screws

Type of the fixing screws                  2x M5

### Mechanical data - Connection technique

Termination                                  Connector plug M12, 4-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                               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

## Ambient conditions - Insulation values

Rated insulation voltage $U_i$	250 VAC
Rated impulse withstand voltage $U_{imp}$	2.5 kV
Overtoltage 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	10 W
Switching element	NO contact, NC contact
Note (Switching element)	Change-over contact with double break, type Zb or 2 NC or 3 NC or 4 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 %
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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 4 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 4 A

### Other data

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

### Scope of delivery

Scope of delivery Not available as spare part  
Slot sealing plugs  
The actuator is included in the scope of delivery

### Note

Note (General)	The axis of the hinge must be 11 mm above and in a parallel plane to the top surface of the safety switch. Actuating radius adjustable to minimum 50 mm, using a hexagonal key wrench AF 2 mm (a) The actuator is not available separately.
Note (Manual release)	right For manual release using M5 triangular key, available as accessory Manual release from side

## Ordering code

Product type description:

AZM 170(1)-(2)Z(3)I(4)-(5)-(6)-(7) (8)

(1)	
<b>without</b>	Cut clamps
<b>SK</b>	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
<b>I</b>	Individual coding
(4)	
<b>without</b>	Power to unlock
<b>A</b>	Power to lock
(5)	
<b>without</b>	cable gland
<b>ST</b>	M12 x 1 connector
(6)	
<b>B1</b>	with actuator B1

<b>B5</b>	with actuator B5
<b>B6L</b>	with actuator B6L
<b>B6R</b>	with actuator B6R

(7)

<b>without</b>	Manual release
<b>2197</b>	Manual release from side (Standard in case of connector and power to unlock versions)
<b>1637</b>	Gold-plated contacts

(8)

<b>24VAC/DC</b>	Us 24 VAC/DC
<b>110VAC</b>	Us 110 VAC
<b>230VAC</b>	Us 230 VAC

(1)

<b>11/11</b>	1 NO contact, 1 NC contact / 1 NO contact 1, NC contact
<b>11/02</b>	1 NO contact, 1 NC contact / 2 NC contacts
<b>12/00</b>	1 NO contact, 2 NC contacts / -
<b>12/11</b>	1 NO contact, 2 NC contact / 1 NO contact 1, NC contact
<b>12/02</b>	1 NO contact, 2 NC contact / 2 NC contacts
<b>02/01</b>	2 NC contacts / 1 NC contact
<b>02/10</b>	2 NC contacts, - / 1 NO contact

(2)

<b>without</b>	Latching force 5 N
<b>R</b>	Latching force 30 N

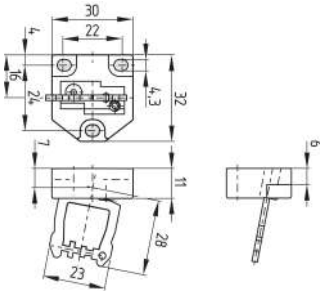
(3)

<b>without</b>	Power to unlock
<b>A</b>	Power to lock

(4)





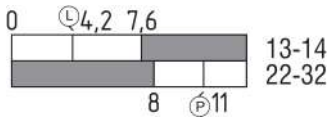


ID: 1azm1b35

| 139.7 kB | .jpg | 352.778 x 317.853 mm - 1000 x 901 px - 72 dpi

| 17.8 kB | .png | 74.083 x 66.675 mm - 210 x 189 px - 72 dpi

## Switch travel diagram



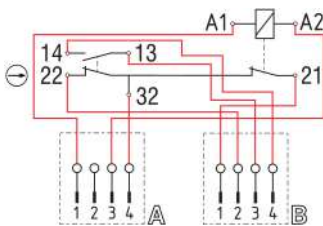
ID: kazm1s02

| 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



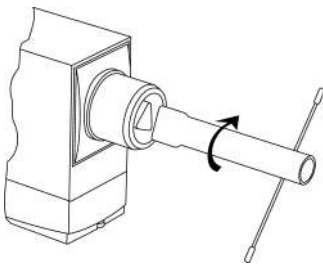
ID: kazm1k13

| 46.2 kB | .cdr |

| 125.5 kB | .jpg | 352.778 x 238.831 mm - 1000 x 677 px - 72 dpi

| 5.3 kB | .png | 74.083 x 50.094 mm - 210 x 142 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

Schmersal India Pvt. Ltd., Plot No - G-7/1, Ranjangaon MIDC, Tal. - Shirur, Dist.- Pune 412 220

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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