



## AZ 16-12ZIB1-M20-2053

- 3 cable entries M 20 x 1.5
- Thermoplastic enclosure
- Individual coding
- Coding level "High" according to ISO 14119
- 52 mm x 90 mm x 30 mm
- Long life
- Double-insulated
- Large wiring compartment
- High level of contact reliability with low voltages and currents
- Insensitive to soiling
- Slotted holes for adjustment, circular holes for location
- For interlocking of light to medium-weight guards
- adjustable ball latch

## Data

### Ordering data

Product type description	AZ 16-12ZIB1-M20-2053
Article number (order number)	101150635
EAN (European Article Number)	4030661158259
eCl@ss number, version 12.0	27-27-26-02
eCl@ss number, version 11.0	27-27-26-02
eCl@ss number, version 9.0	27-27-26-02
ETIM number, version 7.0	EC002592
ETIM number, version 6.0	EC002592

### Approvals - Standards

Certificates	IFA cULus
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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	High
Working principle	electromechanical
Housing material	Plastic, glass-fibre reinforced thermoplastic, self-extinguishing
Material of the actuator	Stainless steel
Gross weight	195 g

## General data - Features

Ejection force	Yes
Number of auxiliary contacts	1
Number of safety contacts	2
Number of cable glands	3

## Safety classification

Standards	EN IEC 60947-5-1
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

Actuating radius, minimum	250 mm
Actuator	straight rigid
Mechanical life, minimum	1,000,000 Operations
Latching force, adjustable to	100 N
Positive break travel	8 mm
Positive break force per NC contact, minimum	10 N
Positive break force, minimum	20 N
Actuating speed, maximum	2 m/s
Mounting	Screws
Type of the fixing screws	2x M6

## Mechanical data - Connection technique

Cable entry	3 x M20 x 1,5
Termination	Screw terminals
Cable section, minimum	0.25 mm <sup>2</sup> 0.75 mm <sup>2</sup>
Cable section, maximum	2.5 mm <sup>2</sup>
Note	All indications including the conductor ferrules.
Allowed type of cable	solid single-wire solid multi-wire flexible

## Mechanical data - Dimensions

Length of sensor	30 mm
Width of sensor	52 mm
Height of sensor	90 mm

## Ambient conditions

Degree of protection	IP67
Ambient temperature	-30 ... +80 °C
Storage and transport temperature	-40 ... +85 °C
Permissible installation altitude above sea level, maximum	2,000 m

## Ambient conditions - Insulation values

Rated insulation voltage $U_i$	500 V
Rated impulse withstand voltage $U_{imp}$	6 kV
Overvoltage category	III
Degree of pollution	3

## Electrical data

Thermal test current	10 A
Required rated short-circuit current	1,000 A
Switching element	1 NO contact, 2 NC contacts
Switching principle	slow action, positive break NC contact
Maximum switching frequency	4,000 /h
Material of the contacts, electrical	Silver

## Electrical data - Safety contacts

Voltage, Utilisation category AC- 230 VAC  
15

Current, Utilisation category AC- 4 A  
15

Voltage, Utilisation category DC- 24 VDC  
13

Current, Utilisation category DC- 4 A  
13

## Electrical data - Auxiliary contacts

Voltage, Utilisation category AC- 230 VAC  
15

Current, Utilisation category AC- 4 A  
15

Voltage, Utilisation category DC- 24 VDC  
13

Current, Utilisation category DC- 4 A  
13

## Scope of delivery

Scope of delivery	Slot sealing plugs Slot covers for dust-proof covering of the openings not in use
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## Note

Note (General)	The axis of the hinge must be 5 mm above and in a parallel plane to the top surface of the safety switch. Minimum actuating radius on hinged guards 250 mm The actuator is not available separately.
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## Ordering code

Product type description:  
AZ 16-(1)Zl-(2)-(3)

(1)

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<b>03</b>	3 NC contact
<b>12</b>	1 NO contact/2 NC contacts

(2)

<b>B1</b>	straight design
<b>B1-1747</b>	straight design with magnetic latch
<b>B1-2024</b>	straight design with slot-lip seal
<b>B1-2053</b>	straight design with ball latch
<b>B1-2177</b>	straight design with centering guide
<b>B6L</b>	angled, flexible to the left
<b>B6R</b>	angled, flexible to the right

(3)

<b>M16</b>	cable entry M16
<b>M20</b>	Cable entry M20

## Pictures

### Product picture (catalogue individual photo)



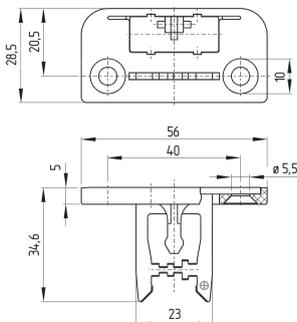
ID: kaz16f11

| 674.9 kB | .jpg | 352.778 x 685.094 mm - 1000 x 1942 px - 72 dpi

| 64.3 kB | .png | 73.731 x 143.581 mm - 209 x 407 px - 72 dpi

| 29.8 kB | .jpg | 63.5 x 123.472 mm - 180 x 350 px - 72 dpi

### Dimensional drawing actuator

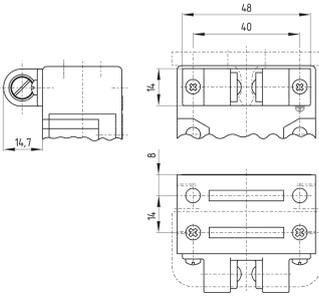


ID: kaz16bi5

| 5.2 kB | .png | 73.731 x 79.728 mm - 209 x 226 px - 72 dpi

| 169.3 kB | .jpg | 352.778 x 381 mm - 1000 x 1080 px - 72 dpi

### Dimensional drawing actuator

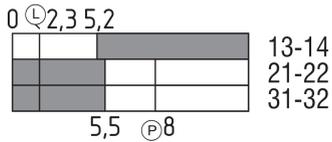


ID: kaz15b02

| 5.0 kB | .png | 74.083 x 68.086 mm - 210 x 193 px - 72 dpi

| 163.5 kB | .jpg | 352.778 x 324.203 mm - 1000 x 919 px - 72 dpi

## Switch travel diagram



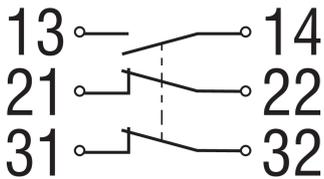
ID: kaz16s04

| 20.2 kB | .cdr |

| 2.1 kB | .png | 74.083 x 32.103 mm - 210 x 91 px - 72 dpi

| 65.6 kB | .jpg | 352.778 x 152.047 mm - 1000 x 431 px - 72 dpi

## Diagram

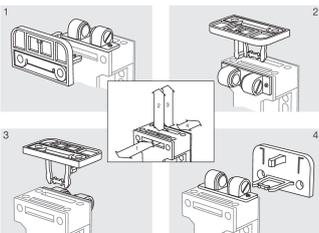


ID: k2o1sk02

| 82.3 kB | .jpg | 352.778 x 193.322 mm - 1000 x 548 px - 72 dpi

| 3.2 kB | .png | 74.083 x 40.569 mm - 210 x 115 px - 72 dpi

## Operating principle



ID: kaz16ai2

| 83.4 kB | .cdr |

| 245.9 kB | .jpg | 352.778 x 255.058 mm - 1000 x 723 px - 72 dpi

| 24.0 kB | .png | 74.083 x 53.622 mm - 210 x 152 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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