# DATASHEET



## AZ 16-03ZIB1-M16-2024

- 3 cable entries M 16 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 protection against the ingress of course dirt

## Data

### Ordering data

| | |
|---|---|
| Product type description | AZ 16-03ZIB1-M16-2024 |
| Article number (order number) | 101150057 |
| EAN (European Article Number) | 4030661154510 |
| 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 | cULus |

## General data

| | |
|---|---|
| Standards | EN ISO 13849-1<br>EN ISO 14119<br>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 | 174 g |

## General data - Features

| | |
|---|---|
| Ejection force | Yes |
| Number of cable glands | 3 |

### Safety classification

| | |
|---|---|
| Standards | EN IEC 60947-5-1 |
| Performance Level, up to | c |
| Category | 1 |
| $B_{10D}$ Normally-closed contact (NC) | 2,000,000 Operations |
| Note | Electrical life on request. |
| 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<br>rigid |
| Mechanical life, minimum | 1,000,000 Operations |
| Positive break travel | 8 mm |
| Positive break force per NC contact, minimum | 10 N |
| Positive break force, minimum | 30 N |
| Actuating speed, maximum | 2 m/s |
| Mounting | Screws |
| Type of the fixing screws | 2x M6 |

## Mechanical data - Connection technique

| | |
|---|---|
| Cable entry | 3 x M16 x 1,5 |
| Termination | Screw terminals |
| Cable section, minimum | 0.75 mm² |
| Cable section, maximum | 2.5 mm² |
| Note | All indications including the conductor ferrules. |
| Allowed type of cable | solid single-wire<br>solid multi-wire<br>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 | 3 NC contact |
| 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-15 | 230 VAC |
| Current, Utilisation category AC-15 | 4 A |
| Voltage, Utilisation category DC-13 | 24 VDC |
| Current, Utilisation category DC-13 | 4 A |

### Scope of delivery

| | |
|---|---|
| Scope of delivery | Slot sealing plugs |

### 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.<br>Minimum actuating radius on hinged guards 250 mm<br>The actuator is not available separately. |

### Ordering code

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

(1)

| | |
|---|---|
| **03** | 3 NC contact |
| **12** | 1 NO contact/2 NC contacts |

(2)

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

(3)

| | |
|---|---|
| **M16** | cable entry M16 |
| **M20** | Cable entry M20 |

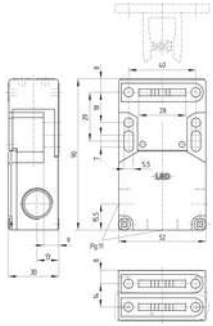
## Pictures

### Product picture (catalogue individual photo)



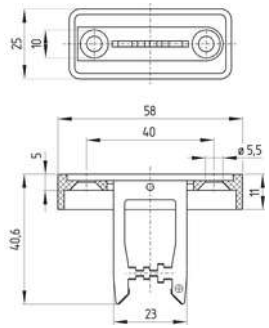
ID: kaz16f11
| 674.9 kB | .jpg | 352.778 x 685.094 mm - 1000 x 1942 px - 72 dpi
| 64.3 kB | .png | 73.731 x 143.581 mm - 209 x 407 px - 72 dpi
| 29.8 kB | .jpg | 63.5 x 123.472 mm - 180 x 350 px - 72 dpi

## Dimensional drawing basic component



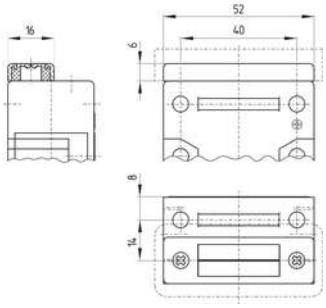
ID: kaz16gi1
| 49.5 kB | .cdr |
| 8.1 kB | .png | 74.083 x 115.006 mm - 210 x 326 px - 72 dpi
| 283.3 kB | .jpg | 352.778 x 548.569 mm - 1000 x 1555 px - 72 dpi

## Dimensional drawing actuator



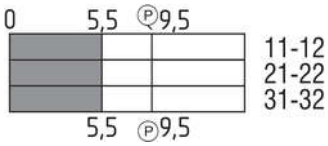

ID: kaz16bi4
| 5.4 kB | .png | 74.083 x 91.017 mm - 210 x 258 px - 72 dpi
| 173.8 kB | .jpg | 352.778 x 434.269 mm - 1000 x 1231 px - 72 dpi

## Dimensional drawing actuator



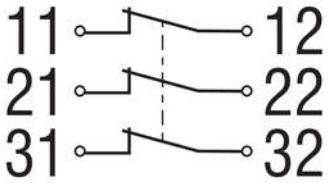

ID: kaz15b03
| 4.7 kB | .png | 74.083 x 70.203 mm - 210 x 199 px - 72 dpi
| 153.0 kB | .jpg | 352.778 x 335.139 mm - 1000 x 950 px - 72 dpi

## Switch travel diagram



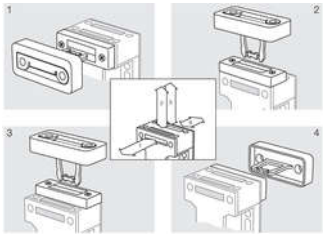

ID: kaz16si6
| 62.1 kB | .jpg | 352.778 x 150.636 mm - 1000 x 427 px - 72 dpi
| 2.3 kB | .png | 74.083 x 33.867 mm - 210 x 96 px - 72 dpi

## Diagram




ID: k3o--k04
| 81.6 kB | .jpg | 352.778 x 210.961 mm - 1000 x 598 px - 72 dpi
| 3.6 kB | .jpg | 35.278 x 35.278 mm - 100 x 100 px - 72 dpi
| 3.4 kB | .png | 74.083 x 44.45 mm - 210 x 126 px - 72 dpi

## Operating principle



ID: kaz16ai1
| 69.3 kB | .cdr |
| 227.5 kB | .jpg | 352.778 x 253.294 mm - 1000 x 718 px - 72 dpi
| 21.3 kB | .png | 74.083 x 53.269 mm - 210 x 151 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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