# DATASHEET



## AZ 16-02ZVRK-M16

- 3 cable entries M 16 x 1.5
- Large wiring compartment
- Thermoplastic enclosure
- Double-insulated
- 52 mm x 90 mm x 30 mm
- Universal coding
- Long life
- High level of contact reliability with low voltages and currents
- Insensitive to soiling
- Slotted holes for adjustment, circular holes for location

## Data

### Ordering data

| | |
|---|---|
| Product type description | AZ 16-02ZVRK-M16 |
| Article number (order number) | 131147145 |
| EAN (European Article Number) | 8905236104169 |
| 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<br>CCC |

### General data

| | |
|---|---|
| Standards | EN ISO 13849-1<br>EN ISO 14119<br>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 | 115 g |

## General data - Features

| | |
|---|---|
| Number of actuating directions | 3 |
| Number of safety contacts | 2 |
| Number of cable glands | 3 |

### 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 - 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 |
| Latching force | 30 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 M16 x 1,5 |
| Termination | Screw terminals |
| Cable section, minimum | 0.25 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 | 2 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 |

## 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 |

## Scope of delivery

| | |
|---|---|
| Scope of delivery | Slot covers for dust-proof covering of the openings not in use |

## Ordering code

Product type description:
AZ 16-(1)ZV(2)K-(3)-(4)-(5)

(1)

| | |
|---|---|
| **without** | 1 NO contact/1 NC contact |
| **02** | 2 NC contact |
| **03** | 3 NC contact |
| **12** | 1 NO contact/2 NC contacts |

(2)

| | |
|---|---|
| **without** | Ejection force |
| **R** | Latching force 30 N |

(3)

| | |
|---|---|
| **G24** | with LED (only available for version with one NO and one NC contact) |

(4)

| | |
|---|---|
| **M16** | cable entry M16 |
| **M20** | Cable entry M20 |
| **ST** | Connector M12, 4 pole, bottom |
| **STL** | Connector M12, 4 pole, left |

| | |
|---|---|
| **STR** | Connector M12, 4 pole, right |

(5)

| | |
|---|---|
| **2254** | Latching force 5 N |
| **1762** | Front mounting |
| **1637** | Gold-plated contacts |

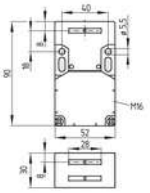
# Pictures

## Product picture (catalogue individual photo)



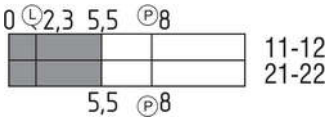

ID: kaz16f01
| 471.8 kB | .jpg | 165.806 x 268.817 mm - 470 x 762 px - 72 dpi
| 115.4 kB | .png | 74.083 x 119.944 mm - 210 x 340 px - 72 dpi
| 74.5 kB | .jpg | 76.2 x 123.472 mm - 216 x 350 px - 72 dpi

## Dimensional drawing basic component



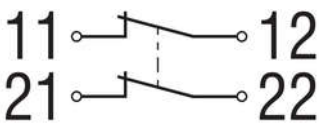
ID: 1az16g01
| 28.1 kB | .cdr |
| 3.1 kB | .png | 74.083 x 51.506 mm - 210 x 146 px - 72 dpi
| 62.3 kB | .jpg | 352.778 x 245.886 mm - 1000 x 697 px - 72 dpi

## Switch travel diagram




ID: kaz16s02
| 20.1 kB | .cdr |
| 2.1 kB | .png | 74.083 x 26.106 mm - 210 x 74 px - 72 dpi
| 56.2 kB | .jpg | 352.778 x 123.472 mm - 1000 x 350 px - 72 dpi

## Diagram




ID: k2o--k01
| 48.8 kB | .jpg | 352.778 x 125.236 mm - 1000 x 355 px - 72 dpi
| 2.3 kB | .png | 74.083 x 26.458 mm - 210 x 75 px - 72 dpi

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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