# DATASHEET



## AZ 16 ZVK-STR

- 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 ZVK-STR |
| Article number (order number) | 101159958 |
| EAN (European Article Number) | 4030661187822 |
| 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 | 120 g |

## General data - Features

| | |
|---|---|
| Ejection force | Yes |
| Number of actuating directions | 3 |
| Number of auxiliary contacts | 1 |
| Number of safety contacts | 1 |
| 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 |
| Positive break travel | 8 mm |
| Positive break force per NC contact, minimum | 10 N |
| Positive break force, minimum | 10 N |
| Actuating speed, maximum | 2 m/s |
| Mounting | Screws |
| Type of the fixing screws | 2x M6 |

## Mechanical data - Connection technique

| | |
|---|---|
| Connector position | Right |
| Cable entry | M12 (A-coding) |
| Termination | Connector plug M12, 4-pole, (A-coding) |

## 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 |
| Rated impulse withstand voltage, connector 4-pole | 2.5 kV |

## Electrical data

| | |
|---|---|
| Thermal test current | 10 A |
| Required rated short-circuit current | 1,000 A |
| Switching element | 1 NO contact, 1 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-15 | 230 VAC |
| Current, Utilisation category AC-15 | 4 A |
| Voltage, Utilisation category DC-13 | 24 VDC |
| Current, Utilisation category DC-13 | 4 A |
| Note, Utilisation category DC-13 | Connector 4-pole |

## 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 |
| Note, Utilisation category DC-13 | Connector 4-pin |

## 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 |

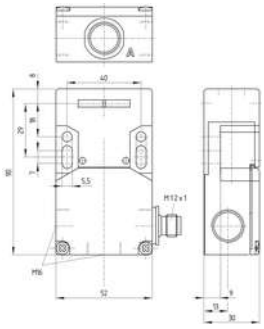
# Pictures

## Product picture (catalogue individual photo)




ID: kaz16f19
| 687.7 kB | .jpg | 352.425 x 489.656 mm - 999 x 1388 px - 72 dpi
| 70.9 kB | .png | 74.083 x 102.658 mm - 210 x 291 px - 72 dpi
| 57.3 kB | .jpg | 88.9 x 123.472 mm - 252 x 350 px - 72 dpi

## Dimensional drawing basic component



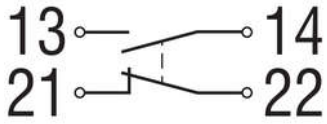
ID: kaz16g06
| 176.6 kB | .jpg | 352.425 x 436.386 mm - 999 x 1237 px - 72 dpi

## Switch travel diagram




ID: kaz16s01
| 19.8 kB | .cdr |
| 2.0 kB | .png | 74.083 x 25.753 mm - 210 x 73 px - 72 dpi
| 52.0 kB | .jpg | 352.778 x 123.119 mm - 1000 x 349 px - 72 dpi

## Diagram




ID: k1o1sk01
| 52.2 kB | .jpg | 352.778 x 143.581 mm - 1000 x 407 px - 72 dpi
| 2.6 kB | .png | 74.083 x 29.986 mm - 210 x 85 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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