# DATASHEET



## AZM 161SK-12/12RKA-024

- Large wiring compartment
- Manual release
- cable entries 4 M 16 x 1.5
- Thermoplastic enclosure
- Double-insulated
- Interlock with protection against incorrect locking.
- 130 mm x 90 mm x 30 mm
- 6 Contacts
- Long life

## Data

### Ordering data

| | |
|---|---|
| Product type description | AZM 161SK-12/12RKA-024 |
| Article number (order number) | 101166285 |
| EAN (European Article Number) | 4030661213972 |
| eCl@ss number, Version 9.0 | 27-27-26-03 |
| eCl@ss number, Version 11.0 | 27-27-26-03 |

### Approval - Standards

| | |
|---|---|
| Certificates | cULus<br>CCC<br>EAC |

### General data

| | |
|---|---|
| Standards | EN 60947-5-1<br>BG-GS-ET-19 |

| | |
|---|---|
| Coding level according to ISO 14119 | Low |
| Active principle | electromechanical |
| Enclosure material | Plastic, glass-fibre reinforced thermoplastic, self-extinguishing |
| Material of the contacts, electrical | Silver |
| Gross weight | 460 g |

## General data - Features

| | |
|---|---|
| Power to lock | Yes |
| Manual release | Yes |
| Number of actuating directions | 3 |
| Number of auxiliary contacts | 2 |
| Number of safety contacts | 4 |

## Safety appraisal

| | |
|---|---|
| Standards | EN ISO 13849-1 |
| Mission Time | 20 Year(s) |

## Safety appraisal - Safety outputs

| | |
|---|---|
| B10d Normally-closed contact (NC) | 2,000,000 Operations |
| B10d Normally open contact (NO) | 1,000,000 Operations |

## Mechanical data

| | |
|---|---|
| Mechanical life, minimum | 1,000,000 Operations |
| Actuating play in direction of actuation | 5.5 mm |
| Clamping force in accordance with ISO14119 F zh | 2,000 N |
| Latching force | 30 N |
| positive break travel | 10 mm |
| Positive break force, minimum | 20 N |

| | |
|---|---|
| Actuating speed, maximum | 2 m/s |

## Mechanical data - Connection technique

| | |
|---|---|
| Terminal Connector | Screw terminals |
| Cable section, minimum | 1 x 0.25 mm² |
| Cable section, maximum | 1 x 1.5 mm² |
| Note (Cable section) | All indications about the cable section are including the conductor ferrules. |

## Mechanical data - Dimensions

| | |
|---|---|
| Length of sensor | 30 mm |
| Width of sensor | 130 mm |
| Height of sensor | 90 mm |

## Ambient conditions

| | |
|---|---|
| Degree of protection | IP67 to EN 60529 |
| Ambient temperature, minimum | -30 °C |
| Ambient temperature, maximum | +60 °C |

## Ambient conditions - Insulation value

| | |
|---|---|
| Rated insulation voltage $U_i$ | 250 V |
| Rated impulse withstand voltage $U_{imp}$ | 4 kV |

## Electrical data

| | |
|---|---|
| Thermal test current | 6 A |
| Rated control voltage | 24 VAC/DC |
| Required rated short-circuit current to EN 60947-5-1 | 1,000 A |
| Electrical power consumption, maximum | 10 W |

| | |
|---|---|
| Switching element | NO contact, NC contact |
| Switching principle | Creep circuit element |
| Switching frequency | 1,000 /h |

## Electrical data - Safety contacts

| | |
|---|---|
| Voltage, Utilisation category AC15 | 230 VAC |
| Current, Utilisation category AC-15 | 4 A |
| Voltage, Utilisation category DC13 | 24 VDC |
| Current, Utilisation category DC13 | 2.5 A |

## Electrical data - Auxiliary contacts

| | |
|---|---|
| Voltage, Utilisation category AC15 | 230 VAC |
| Current, Utilisation category AC-15 | 4 A |
| Voltage, Utilisation category DC13 | 24 VDC |
| Current, Utilisation category DC13 | 2.5 A |

## Other data

| | |
|---|---|
| Note (applications) | sliding safety guard<br>removable guard<br>hinged safety guard |

## Scope of delivery

| | |
|---|---|
| Included in delivery | Actuators must be ordered separately. |

## Notes

| | |
|---|---|
| Note (Manual release) | For maintenance, installation, etc.<br>For manual release using M5 triangular key, available as accessory |

## Ordering code

Product type description:
AZM 161 (1)-(2)(3)K(4)-(5)-(6)(7)

(1)

| | |
|---|---|
| **SK** | Screw connection |
| **CC** | Cage clamps |
| **ST** | Connector M12, 8  and 4 pole (only for Us: 24 VAC/DC) |

(2)

| | |
|---|---|
| **11/03** | 1 NO contacts / 4 NC contacts (conector version) |
| **12/03** | 1 NO contacts/5 NC contact |
| **12/11** | 2 NO contacts / 3 NC contacts (conector version) |
| **11/12** | 2 NO contacts / 3 NC contacts (conector version) |
| **12/12** | 2 NO contacts/4 NC contacts |

(3)

| | |
|---|---|
| **without** | Latching force 5 N |
| **R** | Latching force 30 N |

(4)

| | |
|---|---|
| **without** | Power to unlock |
| **A** | Power to lock |

(5)

| | |
|---|---|
| **without** | Lateral manual release |
| **ED** | Manual release on the cover side |
| **EU** | Manual release on the rear side |
| **T** | Lateral emergency exit |
| **T** | Emergency exit on the cover side |
| **TU** | Emergency exit on the rear side |
| **N** | Emergency release |

(6)

| | |
|---|---|
| **024** | Us: 24 VAC/DC |
| **110/230** | Us: 110/230 VAC |

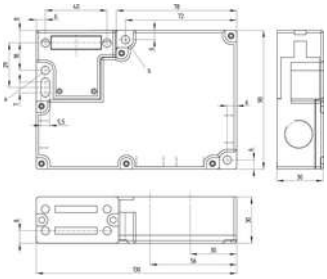
# Pictures

## Product picture (catalogue individual photo)



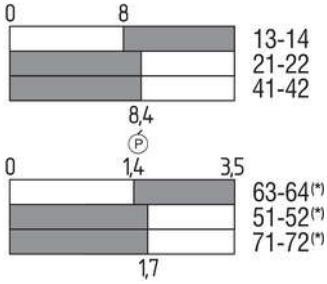

ID: kazm1f03
| 256.6 kB | .tif | 75.671 x 56.885 mm - 286 x 215 px - 96 dpi
| 698.5 kB | .jpg | 352.778 x 265.289 mm - 1000 x 752 px - 72 dpi
| 36.6 kB | .png | 74.083 x 55.739 mm - 210 x 158 px - 72 dpi

## Dimensional drawing basic component



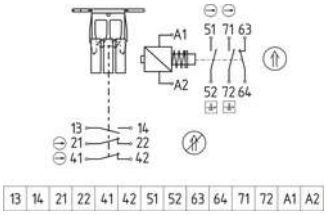
ID: kazm1g09
| 137.3 kB | .cdr |
| 4.5 kB | .png | 74.083 x 62.442 mm - 210 x 177 px - 72 dpi
| 139.6 kB | .jpg | 352.778 x 298.097 mm - 1000 x 845 px - 72 dpi

## Switch travel diagram



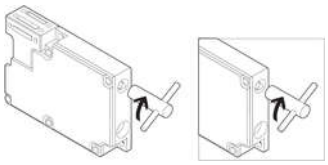

ID: kazm1s07
| 2.9 kB | .png | 74.083 x 63.853 mm - 210 x 181 px - 72 dpi
| 102.8 kB | .jpg | 352.778 x 304.8 mm - 1000 x 864 px - 72 dpi

## Diagram




ID: kazm1k30
| 75.0 kB | .ai | 297 x 210.002 mm - 841 x 595 px - 72 dpi
| 111.7 kB | .jpg | 352.778 x 227.542 mm - 1000 x 645 px - 72 dpi

## Operating principle



ID: kazm1a41
| 48.4 kB | .cdr |
| 105.3 kB | .jpg | 352.778 x 170.744 mm - 1000 x 484 px - 72 dpi
| 13.0 kB | .png | 74.083 x 35.983 mm - 210 x 102 px - 72 dpi

Schmersal, Inc., 15 Skyline Drive, Hawthorne, NY 10532
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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