



## AZM 161SK-12/12RKED-024G

- Large wiring compartment
- Manual release, cover-side
- 3 LEDs to show operating conditions
- 2 cable entries 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-12/12RKED-024G
Article number (order number)	101215599
EAN (European Article Number)	4030661403564

### Approvals - Standards

Certificates	cULus CCC
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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	Low
Working principle	electromechanical

Housing material	Plastic, glass-fibre reinforced thermoplastic, self-extinguishing
Gross weight	450 g

### General data - Features

Power to unlock	Yes
Manual release	Yes
Integral system diagnostics, status	Yes
Number of actuating directions	3
Number of auxiliary contacts	2
Number of safety contacts	4

### Safety classification

Standards	EN ISO 13849-1
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)

## Safety classification - Guard locking function

Performance Level, up to	e
Note (Performance Level)	Information for the safety classification of the guard locking function is documented in the "Operating instructions" or in the "Operation and mounting" instructions.

## Mechanical data

Mechanical life, minimum	1,000,000 Operations
Actuating play in direction of actuation	5.5 mm
Holding force $F_{Zh}$ in accordance with EN ISO 14119	2,000 N
Holding force $F_{max}$ , maximum	2,600 N
Latching force	30 N
Positive break travel	10 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	3x M6

## Mechanical data - Connection technique

Cable entry	2 x M16 x 1.5
Termination	Screw terminals
Cable section, minimum	0.25 mm <sup>2</sup>
Cable section, maximum	1.5 mm <sup>2</sup>
Note (Cable section)	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	130 mm
Height of sensor	90 mm

## Ambient conditions

Degree of protection	IP67
Ambient temperature	-25 ... +60 °C
Storage and transport temperature, minimum	-25 °C
Storage and transport temperature, maximum	+85 °C
Note (Relative humidity)	non-condensing non-icing
Protection class	II
Permissible installation altitude above sea level, maximum	2,000 m

## Ambient conditions - Insulation values

Rated insulation voltage $U_i$	250 VAC
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	1,000 A
Electrical power consumption, maximum	10 W
Switching element	NO contact, NC contact
Switching principle	slow action, positive break NC contact
Switching frequency	1,000 /h

Material of the contacts, Silver  
electrical

### Electrical data - Magnet control

Magnet switch-on time 100 %  
Test pulse duration, maximum 5 ms  
Test pulse interval, minimum 50 ms

### 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- 2.5 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- 2.5 A  
13

### Electrical data - Diagnostic outputs

Design of control elements p-type

### Other data

Note (applications)	sliding safety guard removable guard hinged safety guard
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## Scope of delivery

Scope of delivery	Actuator must be ordered separately.
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## Note

Note (Manual release)	For maintenance, installation, etc. For manual release using M5 triangular key, available as accessory Top-side (ordering suffix -ED) or rear-side (ordering suffix -EU) mounting possible
Note (Emergency exit, Manual release)	A combination of manual release and emergency exit in different mounting directions is only possible for the following variants: -ED/-TU and -TD/-EU

## Ordering code

Product type description:  
AZM161 (1)-(2)(3)K(4)-(5)/(6)-(7)(8)

(1)	
<b>SK</b>	Screw connection
<b>CC</b>	Cage clamps
<b>ST</b>	Connector plug M12
(2)	
<b>11/03</b>	Magnet: 1 NO contact, 1 NC contact / Actator: 3 NC contacts with connector plug
<b>12/03</b>	Magnet: 1 NO contact, 2 NC contact / Actator: 3 NC contacts
<b>12/11</b>	Magnet: 1 NO contact, 2 NC contacts / Actator: 1 NO contact, 1 NC contact with connector plug
<b>11/12</b>	Magnet: 1 NO contact, 1 NC contacts / Actator: 1 NO contact, 2 NC contact with connector plug
<b>12/12</b>	Magnet: 1 NO contact, 2 NC contacts / Actator: 1 NO contact, 2 NC contacts

(3)

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**without**

Latching force 5 N

**R**

Latching force 30 N

(4)

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**without**

Power to unlock

**A**

Power to lock

(5)

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**without**

Lateral manual release

**ED**

Manual release on the cover side

**EU**

Manual release on the back side

(6)

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**T**

Lateral emergency exit

**TD**

Emergency exit on the cover side

**TU**

Emergency exit on the back side

**N**

Emergency release

(7)

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**024**

Us: 24 VAC/DC

**110/230**

Us: 110/230 VAC

(8)

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**without**

without LED

**G**

with LED (only for Us: 24 VAC/DC)

## Pictures

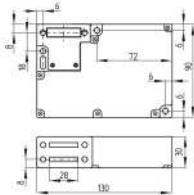
**Product picture (catalogue individual photo)**



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  
 | 61.5 kB | .jpg | 123.472 x 92.781 mm - 350 x 263 px - 72 dpi

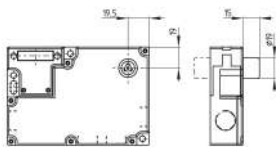
### Dimensional drawing basic component



ID: lazm1g09

| 8.1 kB | .swf |  
 | 3.6 kB | .png | 74.083 x 52.211 mm - 210 x 148 px - 72 dpi  
 | 75.8 kB | .jpg | 352.778 x 248.003 mm - 1000 x 703 px - 72 dpi

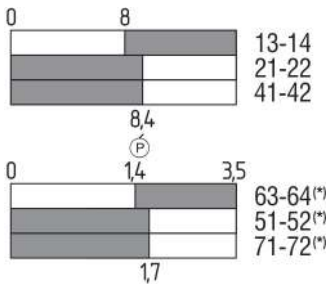
### Dimensional drawing miscellaneous



ID: lazm1g23

| 76.8 kB | .jpg | 352.778 x 245.886 mm - 1000 x 697 px - 72 dpi

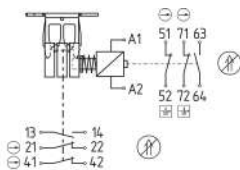
### Switch travel diagram



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: kazm1k29

| 80.8 kB | .ai | 297 x 210.002 mm - 841 x 595 px - 72 dpi  
 | 111.9 kB | .jpg | 352.778 x 227.894 mm - 1000 x 646 px - 72 dpi  
 | 4.8 kB | .png | 74.083 x 47.978 mm - 210 x 136 px - 72 dpi

11	12	21	22	41	42	51	52	63	64	71	72	A1	A2
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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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