

Datasheet - AZM 161SK-12/12RKTD-024

Solenoid interlock / AZM 161



Preferred typ



(Minor differences between the printed image and the original product may exist!)

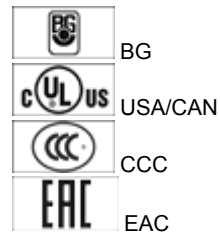
- Thermoplastic enclosure
- Double-insulated
- Interlock with protection against incorrect locking.
- 130 mm x 90 mm x 30 mm
- 6 Contacts
- Long life
- Large wiring compartment
- Emergency exit, cover-side
- cable entries 4 M 16 x 1.5

Ordering details

| | |
|--------------------------|-------------------------|
| Product type description | AZM 161SK-12/12RKTD-024 |
| Article number | 101187838 |
| EAN Code | 4030661348612 |
| eCl@ss | 27-27-26-03 |

Approval


Approval



Classification

| | |
|-----------------------------------|--|
| Standards | EN ISO 13849-1 |
| B10d Normally-closed contact (NC) | 2.000.000 |
| Mission time | 20 Years |
| notice | $MTTF_d = \frac{B_{10d}}{0,1 \times n_{op}}$ $n_{op} = \frac{d_{op} \times h_{op} \times 3600 \text{ s/h}}{t_{cycle}}$ |

Global Properties

| | |
|--|---|
| Permanent light | AZM 161 |
| Standards | EN 60947-5-1, BG-GS-ET-19 |
| Compliance with the Directives (Y/N)  | Yes |
| Number of actuating directions | 3 |
| Active principle | electromechanical |
| Duty cycle ED | Magnet 100 % |
| Materials | |
| - Material of the housings | Plastic, glass-fibre reinforced thermoplastic, self-extinguishing |
| - Material of the contacts | Silver |
| Housing coating | None |
| Weight | 432 |

Mechanical data

| | |
|--|---|
| Actuating play in direction of actuation | 5.5 mm |
| Design of electrical connection | Screw connection |
| Cable section | |
| - Min. Cable section | 1 x 0,25 |
| - Max. Cable section | 1 x 1.5 |
| Mechanical life | > 1.000.000 operations |
| notice | All indications about the cable section are including the conductor ferrules. |
| Emergency unlocking device (Y/N) | Yes |
| Manual release (Y/N) | No |
| Emergency release (Y/N) | No |
| Latching force | 30 |
| Positive break force | 20 |
| positive break travel | 10 |
| Clamping force F | 2000 N |
| Max. Actuating speed | 2 m/s |
| Actuating frequency | max. 1000 / h |

Ambient conditions

| | |
|----------------------------------|----------------------|
| Ambient temperature | |
| - Min. environmental temperature | -25 °C |
| - Max. environmental temperature | +60 °C |
| Protection class | IP67 to IEC/EN 60529 |

Electrical data

| | |
|---|--|
| Design of control element | Normally open contact (NO), Opener (NC) |
| Switching principle | Creep circuit element |
| Number of auxiliary contacts | 2 |
| Number of safety contacts | 4 |
| Power to unlock | Yes |
| Power to lock | No |
| Rated control voltage U_s | 24 VAC/DC |
| Power consumption | max. 10 W |
| Power consumption | max. 10 W |
| Rated impulse withstand voltage U_{imp} | 4 kV |
| Rated insulation voltage U_i | 250 V |
| Thermal test current I_{the} | 6 A |
| Utilisation category | AC-15: 230 V / 4 A, DC-13: 24 V / 2,5 A |

Required rated short-circuit current
Max. fuse rating

1000 A
6 A gG D-fuse To DIN EN 60269-1

ATEX

Explosion protection categories for gases
Explosion protected category for dusts

None
None

Miscellaneous data

Applications



sliding safety guard,
removable guard,
hinged safety guard

Dimensions

Dimensions of the sensor

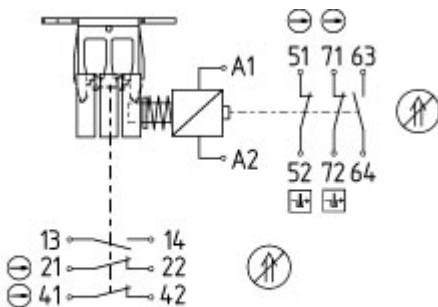
- Width of sensor 130 mm
- Height of sensor 90 mm
- Length of sensor 30 mm

notice

Emergency exit

- The emergency exit is used where an intervention in an already locked hazardous area is required
- Emergency exit by pressing the red push button
- Resetting by pulling on the latched button
- Top-side (ordering suffix -TD) or rear-side (ordering suffix -TU) mounting possible
- A combination of manual release and emergency exit in different mounting directions is only possible for the following variants: -ED/-TU and -TD/-EU

Diagram

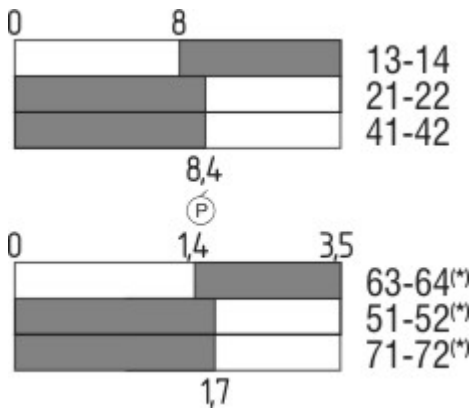


| | | | | | | | | | | | | | |
|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 13 | 14 | 21 | 22 | 41 | 42 | 51 | 52 | 63 | 64 | 71 | 72 | A1 | A2 |
|----|----|----|----|----|----|----|----|----|----|----|----|----|----|

Note Diagram

- positive break NC contact
- active
- no active
- Normally-open contact
- Normally-closed contact

Switch travel diagram



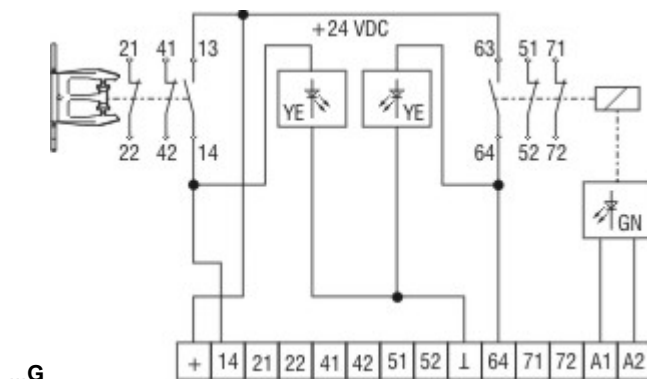
Notes Switch travel diagram

- Contact closed
 - Contact open
 - Setting range
 - Break point
 - Positive opening sequence/- angle
- VS** adjustable range of NO contact
VÖ adjustable range of NC contact
N after travel

Ordering suffix

The applicable ordering suffix is added at the end of the part number of the safety switch.

Order example: AZM 161SK-12/12RKTD-024G



Protected against incorrect polarity and voltage spikes.
 limited terminating space 0,75 mm²

Diagram

- 14 guard open
- 13 +24 VDC
- 63 0 VDC
- 64 unlocked

Ordering code

AZM 161 (1)-(2)(3)K(4)-(5)-(6)(7)

(1)

SK

CC

ST

(2)

12/12

12/11

11/12

(3)

Screw connection

Cage clamps

male connector M12, 8- and 4-poles (Only for Us: 24 VAC/DC)

2 Normally open contact (NO) / 4 Opener (NC)

2 Normally open contact (NO) / 3 Opener (NC) (Plug-in connection)

2 Normally open contact (NO) / 3 Opener (NC) (Plug-in connection)

| | |
|----------------|--|
| <i>without</i> | Latching force 5 N |
| R | Latching force 30 N |
| (4) | |
| <i>without</i> | Power to unlock |
| A | Power to lock |
| (5) | |
| <i>without</i> | Manual release lateral |
| ED | Manual release cover-side |
| EU | Manual release rear |
| T | Emergency exit lateral |
| TD | Emergency exit cover-side |
| TU | Emergency exit rear |
| N | Emergency release |
| (6) | |
| 024 | Us: 24 VAC/DC |
| 110/230 | Us: 110/230 VAC |
| (7) | |
| G | with LED (<i>Only for Us: 24 VAC/DC</i>) |

Documents

Operating instructions and Declaration of conformity (sv) 423 kB, 15.08.2012

Code: mrl_azm161_sv

Operating instructions and Declaration of conformity (es) 444 kB, 09.03.2016

Code: mrl_azm161_es

Operating instructions and Declaration of conformity (de) 487 kB, 21.01.2019

Code: mrl_azm161_de

Operating instructions and Declaration of conformity (pt) 507 kB, 09.12.2016

Code: mrl_azm161_pt

Operating instructions and Declaration of conformity (en) 523 kB, 21.01.2019

Code: mrl_azm161_en

Operating instructions and Declaration of conformity (pl) 466 kB, 06.04.2016

Code: mrl_azm161_pl

Operating instructions and Declaration of conformity (fr) 444 kB, 28.04.2016

Code: mrl_azm161_fr

Operating instructions and Declaration of conformity (cs) 464 kB, 23.08.2017

Code: mrl_azm161_cs

Operating instructions and Declaration of conformity (jp) 728 kB, 23.08.2016

Code: mrl_azm161_jp

Operating instructions and Declaration of conformity (it) 438 kB, 19.04.2016

Code: mrl_azm161_it

Operating instructions and Declaration of conformity (nl) 473 kB, 03.08.2018

Code: mrl_azm161_nl

BG-test certificate (de) 140 kB, 20.05.2015

Code: z_m16p01

BG-test certificate (en) 134 kB, 20.05.2015

Code: z_m16p02

CCC certification (en) 5 MB, 26.10.2018

Code: q_371p02

CCC certification (cn) 5 MB, 26.10.2018

Code: q_371p03

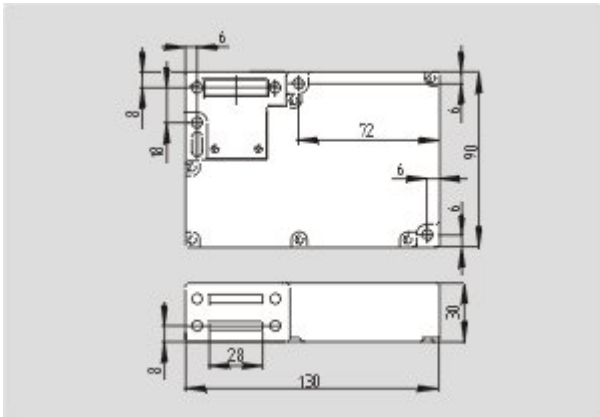
EAC certification (ru) 809 kB, 05.10.2015

Code: q_6040p17_ru

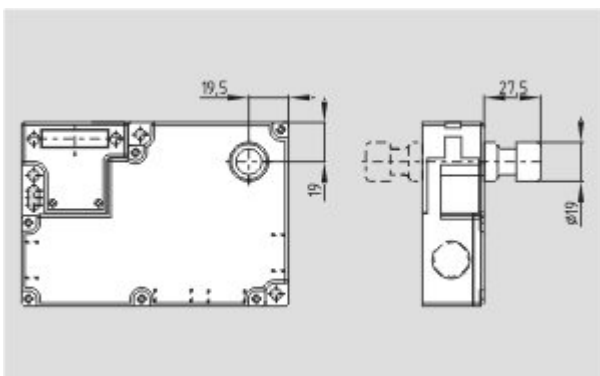
notice (de, en) 88 kB, 27.09.2007

Code: s_161p01

Images



Dimensional drawing (basic component)



Operating principle

System components

Actuator

101145117 - AZM 161-B1



101144416 - AZM 161-B1E



101171859 - AZM 161-B1ES



101175431 - AZM 161-B1F



101171125 - AZM 161-B1S



101173089 - AZM 161-B1-2053 WITH BALL LATCH



101164100 - AZM 161-B1-1747 WITH MAGNETIC LATCH



101178199 - AZM 161-B1-2024





101176642 - AZM 161-B1-2177 WITH CENTERING GUIDE



101174113 - AZM 161-B6-2177 WITH CENTERING GUIDE

- For very small actuating radii



101170375 - AZM 161-B6S



101144420 - AZM 161-B6

- For very small actuating radii

Door-handle system



AZM 161-STS30

- Latching handle
- Suitable for all types of guard
- suitable in combination with EX-AZM 161
- Max. 110 °C

Accessories



101100887 - TRIANGULAR KEY TK-M5

- For manual release using M5 triangular key, available as accessory
- For maintenance, installation, etc.



101149213 - Mounting set MS AZM 161 R/P

101150376 - Mounting set MS AZM 161 P



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The data and values have been checked thoroughly. Technical modifications and errors excepted.

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