DATASHEET



AZM 161SK-12/12RI-024-B6R

- 1 Cable entry M 20 x 1.5
- Screw connection
- Manual release from side
- right-hand model
- Compact design
- For very smal actuating radii in line with or at 90° to the plane of the actuator
- Interlock with protection against incorrect locking.
- Individual coding
- Coding level "High" according to ISO 14119
- Double-insulated
- High holding force
- Long life
- 130 mm x 90 mm x 30 mm

Data

Ordering data

Product type description	AZM 161SK-12/12RI-024-B6R
Article number (order number)	101215869
EAN (European Article Number)	4030661405018
eCl@ss number, version 12.0	27-27-26-03
eCl@ss number, version 11.0	27-27-26-03
eCl@ss number, version 9.0	27-27-26-03
ETIM number, version 7.0	EC002593
ETIM number, version 6.0	EC002593

Approvals - Standards

Certificates	IFA cULus CCC

General data

Standards	EN ISO 13849-1 EN ISO 14119 EN IEC 60947-5-1
Coding	Individual coding
Coding level according to EN ISO 14119	High
Working principle	electromechanical
Housing material	Plastic, glass-fibre reinforced thermoplastic, self-extinguishing
Material of the actuator	Stainless steel
Gross weight	500 g

General data - Features

Power to unlock	Yes
Manual release	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_{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)

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

Actuating radius, minimum	95 mm
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
Tightening torque of the fastening screws for the housing cover	0.6 Nm

Note	The tightening sequence of the cover screws must be observed. This can be found in the attached drawing in the “Pictures” tab.

Mechanical data - Connection technique

Cable entry	4 x M16 x 1,5
Termination	Screw terminals
Cable section, minimum	0.25 mm²
Cable section, maximum	1.5 mm²
Note	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	-30 ... +60 °C
Storage and transport temperature	-25 ... +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
Maximum switching frequency	1,000 /h
Material of the contacts, electrical	Silver

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-15	230 VAC
Current, Utilisation category AC-15	4 A
Voltage, Utilisation category DC-13	24 VDC
Current, Utilisation category DC-13	2.5 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	2.5 A

Other data

Note (applications)	sliding safety guard removable guard hinged safety guard

Scope of delivery

Scope of delivery	Not available as spare part Slot sealing plugs The actuator is included in the scope of delivery

Note

Note (General)	The axis of the hinge must be 11 mm above and in a parallel plane to the top surface of the safety switch. Actuating radius adjustable to minimum 95 mm, using a hexagonal key wrench AF 2.5 mm (a) The actuator is not available separately.
Note (Manual release)	For maintenance, installation, etc. For manual release using M5 triangular key, available as accessory

Ordering code

Product type description:
AZM 161(1)(2)(3)I(4)(5)(6)(7)(8)(9)

(1)

CC	Cage clamps
SK	Screw terminals
ST	M12 connector

(2)

11/03	Magnet: 1 NO contact, 1 NC contact / Actuator: 3 NC contacts with connector plug

12/11	Magnet: 1 NO contact, 2 NC contacts / Actuator: 1 NO contact, 1 NC contact with connector plug
12/03	Magnet: 1 NO contact, 2 NC contact / Actuator: 3 NC contacts
11/12	Magnet: 1 NO contact, 2 NC contacts / Actuator: 1 NO contact, 1 NC contact with connector plug
12/12	Magnet: 1 NO contact, 2 NC contacts / Actuator: 1 NO contact, 2 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

(6)

T	Lateral emergency exit
TD	Emergency exit on the cover side
TU	Emergency exit on the rear side
N	Emergency release

(7)

024	Us: 24 VAC/DC
110/230	Us: 110/230 VAC

(8)

without	without LED
G	with LED (only for Us: 24 VAC/DC)

(9)

B1	Actuator B1 included
B1E	Actuator B1E included
B6L	Actuator B6 left included
B6R	Actuator B6 right included
B1-1747	Actuator B1-1747 included
B1-2024	Actuator B1-2024 included
B1-2053	Actuator B1-2053 included
B1-2177	Actuator B1-2177 included

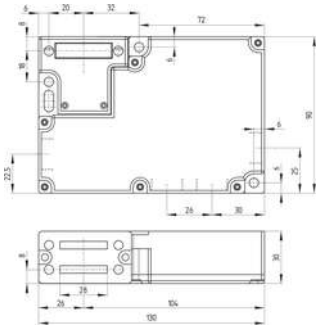
Pictures

Product picture (catalogue individual photo)



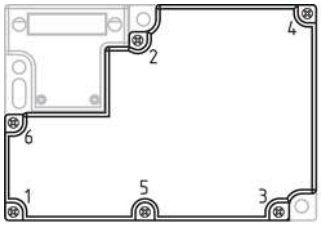
ID: kazm1f15
| 238.2 kB | .jpg | 352.778 x 251.883 mm - 1000 x 714 px - 72 dpi
| 19.4 kB | .png | 74.083 x 52.917 mm - 210 x 150 px - 72 dpi
| 27.1 kB | .jpg | 123.472 x 88.194 mm - 350 x 250 px - 72 dpi

Dimensional drawing basic component



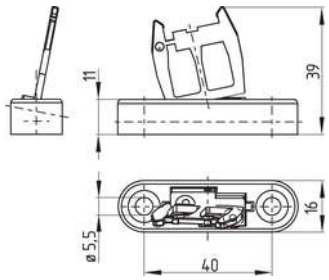
ID: kazm1g20
| 39.1 kB | .cdr |
| 4.8 kB | .png | 73.731 x 75.847 mm - 209 x 215 px - 72 dpi
| 154.6 kB | .jpg | 352.425 x 362.303 mm - 999 x 1027 px - 72 dpi

Dimensional drawing basic component



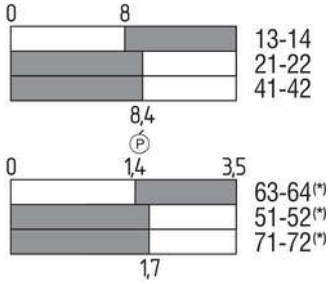
ID: 1azm1g30
| 93.0 kB | .jpg | 352.778 x 239.889 mm - 1000 x 680 px - 72 dpi

Dimensional drawing actuator



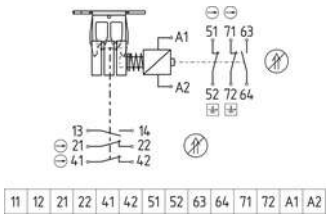
ID: 1azm1b31
| 153.2 kB | .jpg | 352.778 x 296.333 mm - 1000 x 840 px - 72 dpi
| 18.4 kB | .png | 74.083 x 62.089 mm - 210 x 176 px - 72 dpi

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

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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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