



AZM 161ST-12/11I-024-B6L

- Large wiring compartment
- Manual release
- 2 Connector M12, 4- and 8-poles
- left-hand model
- Compact design
- For very small 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 161ST-12/11I-024-B6L
Article number (order number)	103031985
EAN (European Article Number)	4030661632964
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	cULus CCC
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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

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 - Safety outputs

Note (B_{10D} Normally open contact (NO)) at 10% I_e and ohmic load

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

Mechanical data - Connection technique

Termination	Connector plug M12, 4-pole, (A-coding) Connector plug M12, 8-pole, (A-coding)
Cable section, minimum	0.25 mm ²
Cable section, maximum	1.5 mm ²
Note (Cable section)	All indications 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
Ambient temperature	-30 ... +60 °C
Storage and transport temperature, minimum	-25 °C
Storage and transport temperature, maximum	+85 °C
Protection class	II
Permissible installation altitude above sea level, maximum	2,000 m

Ambient conditions - Insulation values

Rated insulation voltage U_i	Connector, 4 poles - 250 V Connector, 8 poles - 60 V
Rated impulse withstand voltage U_{imp}	4 kV
Rated impulse withstand voltage, connector 4-pole	2.5 kV

Rated impulse withstand voltage, connector 8-pole 0.8 kV

Electrical data

Thermal test current 2 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, 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- 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

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



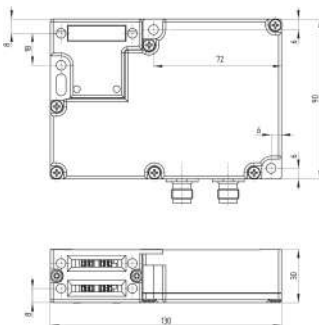
ID: kazm1f23

| 412.8 kB | .jpg | 352.778 x 291.394 mm - 1000 x 826 px - 72 dpi

| 36.0 kB | .png | 74.083 x 61.031 mm - 210 x 173 px - 72 dpi

| 58.2 kB | .jpg | 123.472 x 101.953 mm - 350 x 289 px - 72 dpi

Dimensional drawing basic component



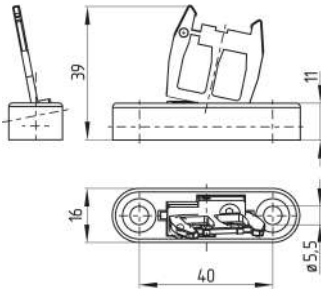
ID: kazm1g17

| 72.1 kB | .cdr |

| 5.1 kB | .png | 74.083 x 74.789 mm - 210 x 212 px - 72 dpi

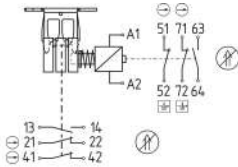
| 150.9 kB | .jpg | 352.425 x 355.953 mm - 999 x 1009 px - 72 dpi

Dimensional drawing actuator



ID: 1azm1b32
 | 54.1 kB | .cdr |
 | 153.3 kB | .jpg | 352.778 x 312.208 mm - 1000 x 885 px - 72 dpi
 | 18.3 kB | .png | 74.083 x 65.617 mm - 210 x 186 px - 72 dpi

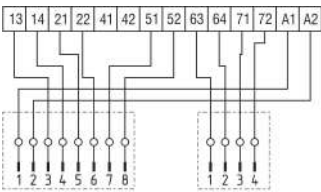
Diagram



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

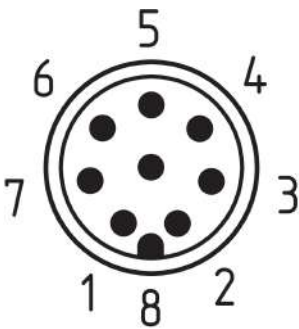
Wiring example



AZM 161 12/11

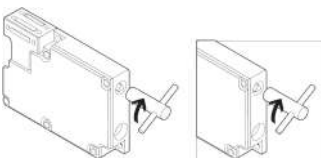
ID: kazm1k96
 | 26.2 kB | .cdr |
 | 128.8 kB | .jpg | 352.778 x 276.931 mm - 1000 x 785 px - 72 dpi

Contact arrangement



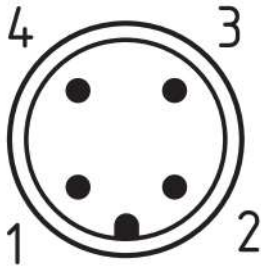
ID: km23-k8b
 | 5.3 kB | .png | 73.731 x 79.728 mm - 209 x 226 px - 72 dpi
 | 139.8 kB | .jpg | 352.778 x 380.647 mm - 1000 x 1079 px - 72 dpi

Operating principle



ID: kazm1a41
 | 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

Contact arrangement



ID: km12-k4c

| 4.2 kB | .png | 74.083 x 74.083 mm - 210 x 210 px - 72 dpi

| 113.3 kB | .jpg | 352.778 x 352.778 mm - 1000 x 1000 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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