



## AZM 161ST-11/12I-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-11/12I-024-B6L
Article number (order number)	103025177
EAN (European Article Number)	4030661512372
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	1
Number of safety contacts	3

## 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 - Safety outputs

Note (B<sub>10D</sub> Normally open contact (NO)) at 10% I<sub>e</sub> 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 <sub>Zh</sub> in accordance with EN ISO 14119	2,000 N
Holding force F <sub>max</sub> , 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 <sup>2</sup>
Cable section, maximum	1.5 mm <sup>2</sup>
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)

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<b>CC</b>	Cage clamps
<b>SK</b>	Screw terminals
<b>ST</b>	M12 connector

(2)

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<b>11/03</b>	Magnet: 1 NO contact, 1 NC contact / Actator: 3 NC contacts with connector plug
<b>12/11</b>	Magnet: 1 NO contact, 2 NC contacts / Actator: 1 NO contact, 1 NC contact with connector plug
<b>12/03</b>	Magnet: 1 NO contact, 2 NC contact / Actator: 3 NC contacts
<b>11/12</b>	Magnet: 1 NO contact, 2 NC contacts / Actator: 1 NO contact, 1 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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<b>without</b>	Latching force 5 N
<b>R</b>	Latching force 30 N

(4)

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<b>without</b>	Power to unlock
<b>A</b>	Power to lock

(5)

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<b>without</b>	Lateral manual release
<b>ED</b>	Manual release on the cover side
<b>EU</b>	Manual release on the rear side

(6)

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<b>T</b>	Lateral emergency exit
<b>TD</b>	Emergency exit on the cover side
<b>TU</b>	Emergency exit on the rear side
<b>N</b>	Emergency release

(7)

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<b>024</b>	Us: 24 VAC/DC
<b>110/230</b>	Us: 110/230 VAC

(8)

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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)



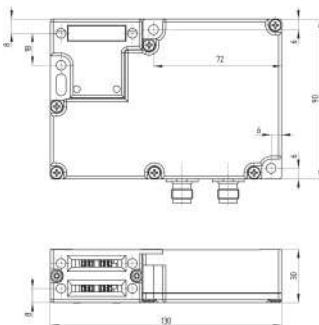
ID: kazm1f23

| 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

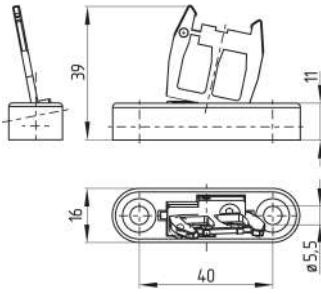
| 72.1 kB | .cdr |

| 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





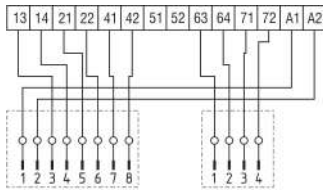
ID: 1azm1b32

| 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

## Wiring example



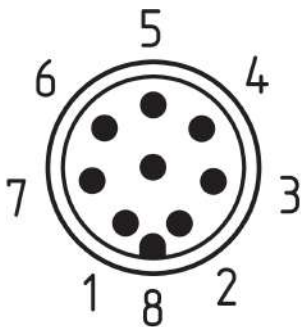
AZM 161 11/12

ID: kazm1k95

| 25.7 kB | .cdr |

| 128.1 kB | .jpg | 352.778 x 276.931 mm - 1000 x 785 px - 72 dpi

## Contact arrangement

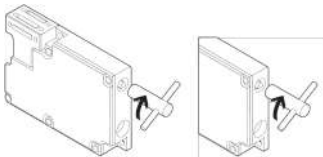


ID: km23-k8b

| 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

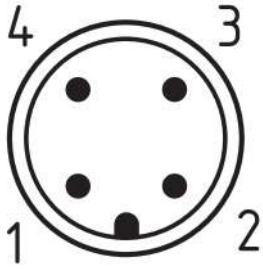


ID: kazm1a41

| 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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