



## AZM 161ST-11/12RI-024G-B1

- Screw connection
- Manual release from side
- Compact design
- 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
- Particularly suitable for sliding doors

## Data

### Ordering data

Product type description	AZM 161ST-11/12RI-024G-B1
Article number (order number)	101216187
EAN (European Article Number)	4030661405681

### 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	Glass-fibre, reinforced thermoplastic
Material of the actuator	Stainless steel
Gross weight	465 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.
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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	150 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 <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 $U_i$	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, 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
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## Scope of delivery

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

Note (General)	The axis of the hinge must be 5 mm above and in a parallel plane to the top surface of the safety switch. minimum actuating radius on hinged guards in line with the plane of the actuator 150 mm minimum actuating radius on rotating guard systems via the narrow edge of the actuator 180 mm 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)	
<b>CC</b>	Cage clamps
<b>SK</b>	Screw terminals
<b>ST</b>	M12 connector
(2)	
<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)		
<b>without</b>		Latching force 5 N
<b>R</b>		Latching force 30 N
(4)		
<b>without</b>		Power to unlock
<b>A</b>		Power to lock
(5)		
<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)		
<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)		
<b>024</b>		Us: 24 VAC/DC
<b>110/230</b>		Us: 110/230 VAC
(8)		
<b>without</b>		without LED
<b>G</b>		with LED (only for Us: 24 VAC/DC)
(9)		
<b>B1</b>		Actuator B1 included
<b>B1E</b>		Actuator B1E included
<b>B6L</b>		Actuator B6 left included
<b>B6R</b>		Actuator B6 right included
<b>B1-1747</b>		Actuator B1-1747 included
<b>B1-2024</b>		Actuator B1-2024 included

**B1-2053**

Actuator B1-2053 included

**B1-2177**

Actuator B1-2177 included

## Pictures

### Product picture (catalogue individual photo)



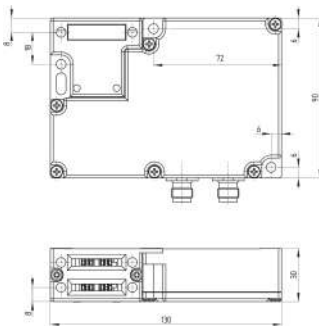
ID: kazm1f23

| 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



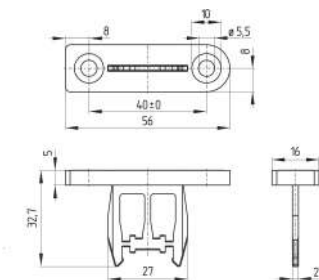
ID: kazm1g17

| 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



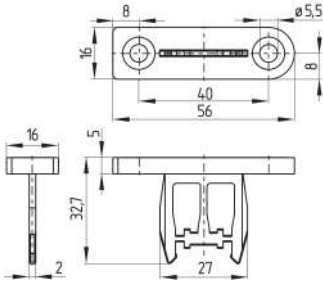
ID: kazm1b20

| 4.4 kB | .png | 74.083 x 62.794 mm - 210 x 178 px - 72 dpi

| 115.8 kB | .jpg | 352.778 x 299.508 mm - 1000 x 849 px - 72 dpi

### Dimensional drawing miscellaneous

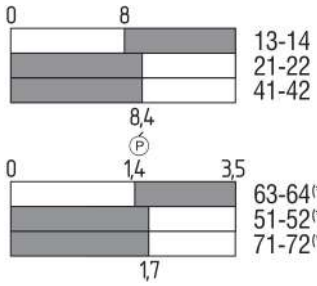




ID: 1azm1b20

| 124.6 kB | .jpg | 352.778 x 306.211 mm - 1000 x 868 px - 72 dpi

### Switch travel diagram

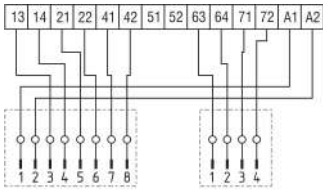


ID: kazm1s07

| 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

### Wiring example



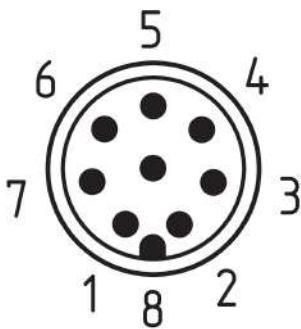
ID: kazm1k95

| 25.7 kB | .cdr |

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

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### Contact arrangement

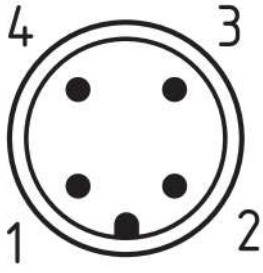


ID: km23-k8b

| 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

### 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.

Generated on: 11/12/2023, 4:54 am