# DATASHEET





# AZM 161SK-12/12RIAT-024G-B6L

- Screw connection
- Manual release, lateral
- 2 cable entries M 16 x 1.5
- left-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-12/12RIAT-024G-B6L
Article number (order number)	103000099
EAN (European Article Number)	4030661419787
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

### **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	510 g

### **General data - Features**

### Safety classification

Standards	EN ISO 13849-1
Performance Level, up to	с
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 $_{\rm e}$ 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)

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,	2 m/s
maximum	
Mounting	Screws
Type of the fixing screws	3x M6

### Mechanical data - Connection technique

Cable entry	2 x M16 x 1.5
Termination	Screw terminals
Cable section, minimum	0.25 mm²
Cable section, maximum	1.5 mm²
Note (Cable section)	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, 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 250 VAC i Rated impulse withstand 4 kV voltage U<sub>imp</sub>

### **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

# 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)	Interlocks with the power to lock principle may only be used in special cases after a thorough evaluation of the accident risk, since the guarding device can immediately be opened on failure of the electrical power supply or when the main switch is opened.
Note (Emergency exit)	In case of emergency actuation from within the hazardous area In removed condition, the guard device is protected against unintentional closing
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)

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
Α	Power to lock
(5)	
without	Lateral manual release
ED	Manual release on the cover side
EU	Manual release on the rear side
(6)	
т	Lateral emergency exit
TD	Emergency exit on the cover side
TU	Emergency exit on the rear side
Ν	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

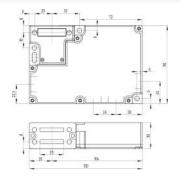
# **Pictures**

### Product picture (catalogue individual photo)



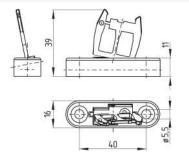
ID: kazm1f15 | 238.2 kB | .jpg | 352.778 x 251.883 mm - 1000 x 714 px - 72 dpi | 19.4 kB | .png | 74.083 x 52.917 mm - 210 x 150 px - 72 dpi | 27.1 kB | .jpg | 123.472 x 88.194 mm - 350 x 250 px - 72 dpi

### Dimensional drawing basic component



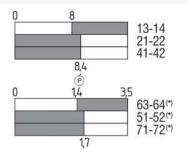
ID: kazm1g20 | 39.1 kB | .cdr | | 4.8 kB | .png | 73.731 x 75.847 mm - 209 x 215 px - 72 dpi | 154.6 kB | .jpg | 352.425 x 362.303 mm - 999 x 1027 px - 72 dpi

#### **Dimensional drawing actuator**



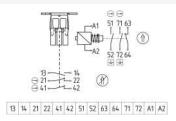
ID: 1azm1b32 | 54.1 kB | .cdr | | 153.3 kB | .jpg | 352.778 x 312.208 mm - 1000 x 885 px - 72 dpi | 18.3 kB | .png | 74.083 x 65.617 mm - 210 x 186 px - 72 dpi

### 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: kazm1k30 | 75.0 kB | .ai | 297 x 210.002 mm - 841 x 595 px - 72 dpi | 111.7 kB | .jpg | 352.778 x 227.542 mm - 1000 x 645 px - 72 dpi | 4.9 kB | .png | 74.083 x 47.978 mm - 210 x 136 px - 72 dpi

Schmersal India Pvt. Ltd., Plot No - G-7/1, Ranjangaon MIDC, Tal. - Shirur, Dist.- Pune 412 220 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, 5:14 am