



AZM 161B-ST1-FB-RA

- Device version for connection to a Safety-Field-Box SFB
- connector plug M12, 8-pole
- Thermoplastic enclosure
- Double-insulated
- Interlock with protection against incorrect locking.
- 130 mm x 90 mm x 30 mm
- 6 Contacts
- Long life

Data

Ordering data

Product type description	AZM 161B-ST1-FB-RA
Article number (order number)	103034789
EAN (European Article Number)	4030661541778
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
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General data

Standards	EN ISO 13849-1 EN ISO 14119 EN IEC 60947-5-1
Coding level according to EN ISO 14119	Low
Working principle	electromechanical
Housing material	Plastic, glass-fibre reinforced thermoplastic, self-extinguishing
Gross weight	451 g

General data - Features

Power to lock	Yes
Manual release	Yes
Number of actuating directions	3
Number of auxiliary contacts	1
Number of safety contacts	2

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)

Mechanical data

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

Connector position	Centre
Termination	Connector plug M12, 8-pole, (A-coding)

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	-25 ... +60 °C
Storage and transport temperature, minimum	-25 °C
Storage and transport temperature, maximum	+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	Connector, 8 poles - 60 V
Rated impulse withstand voltage U_{imp}	0.8 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	24 VAC
Current, Utilisation category AC-15	2 A
Voltage, Utilisation category DC-13	24 VDC
Current, Utilisation category DC-13	2 A

Electrical data - Auxiliary contacts

Voltage, Utilisation category AC-15	24 VAC
Current, Utilisation category AC-15	2 A
Voltage, Utilisation category DC-13	24 VDC
Current, Utilisation category DC-13	2 A

Other data

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

PIN 1	A1 Supply voltage UB
PIN 2	X1 Safety input 1
PIN 3	A2 GND
PIN 4	Y1 Safety output 1
PIN 5	Signalling output
PIN 6	X2 Safety input 2
PIN 7	Y2 Safety output 2
PIN 8	IN Solenoid control

Scope of delivery

Scope of delivery	Actuator must be ordered separately.
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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 (Manual release)	For maintenance, installation, etc. For manual release using M5 triangular key, available as accessory

Ordering code

Product type description:
AZM161 (1)-(2)-FB-(3)(4)(5)

(1)

Z	Solenoid interlock monitored  (Not in power to lock version)
B	Actuator monitored

(2)	
ST1	connector plug M12, centre
ST2	connector plug M12, right
(3)	
	Latching force 5 N
R	Latching force 30 N
(4)	
	Power to unlock
A	Power to lock
(5)	
	Manual release
N	Emergency release
T	Emergency exit
TD	Emergency exit on the cover side
TU	Emergency exit on the cover side

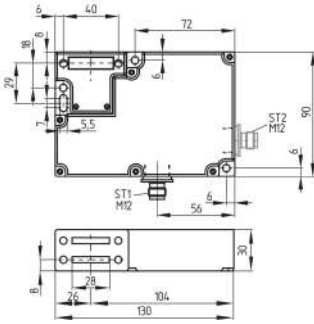
Pictures

Product picture (catalogue individual photo)



ID: kazm1f88
 | 306.4 kB | .jpg | 352.778 x 288.219 mm - 1000 x 817 px - 72 dpi
 | 30.1 kB | .png | 74.083 x 60.678 mm - 210 x 172 px - 72 dpi
 | 42.7 kB | .jpg | 123.472 x 100.894 mm - 350 x 286 px - 72 dpi

Dimensional drawing basic component

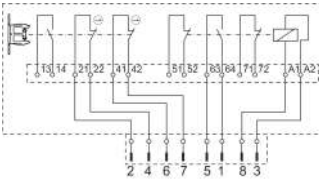


ID: 1azm1g27

| 11.8 kB | .png | 73.731 x 74.436 mm - 209 x 211 px - 72 dpi

| 155.5 kB | .jpg | 352.778 x 355.953 mm - 1000 x 1009 px - 72 dpi

Diagram

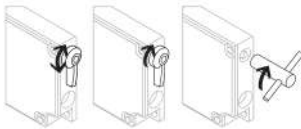


ID: kazm1k122

| 109.2 kB | .jpg | 352.778 x 193.675 mm - 1000 x 549 px - 72 dpi

| 4.5 kB | .png | 74.083 x 40.569 mm - 210 x 115 px - 72 dpi

Operating principle



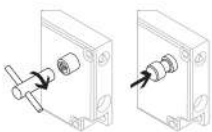
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| 32.7 kB | .cdr |

| 107.3 kB | .jpg | 352.778 x 245.886 mm - 1000 x 697 px - 72 dpi

| 12.5 kB | .png | 74.083 x 51.506 mm - 210 x 146 px - 72 dpi

Operating principle



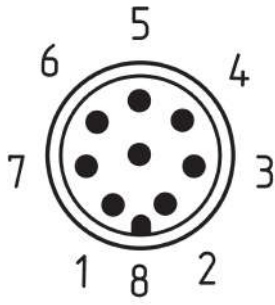
ID: 1azm1a53

| 32.1 kB | .cdr |

| 84.1 kB | .jpg | 352.778 x 245.181 mm - 1000 x 695 px - 72 dpi

| 9.9 kB | .png | 74.083 x 51.506 mm - 210 x 146 px - 72 dpi

Contact arrangement

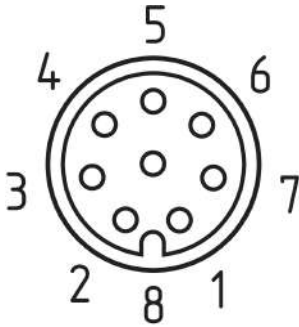


ID: km12-k8b

| 5.3 kB | .png | 73.731 x 87.489 mm - 209 x 248 px - 72 dpi

| 138.6 kB | .jpg | 352.425 x 417.689 mm - 999 x 1184 px - 72 dpi

Contact arrangement



ID: km23-k8a

| 18.0 kB | .cdr |

| 5.5 kB | .png | 73.731 x 79.728 mm - 209 x 226 px - 72 dpi

| 155.6 kB | .jpg | 352.778 x 380.647 mm - 1000 x 1079 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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