

Datasheet - AZ 16-12ZI-B1

Safety switch with separate actuator / AZ 16ZI / AZ 16ZI-B1



Preferred typ



(Minor differences between the printed image and the original product may exist!)

- thermoplastic enclosure
- Individual coding
- 600 different combinations
- 52 mm x 90 mm x 30 mm
- Long life
- Double-insulated
- Large wiring compartment
- High level of contact reliability with low voltages and currents
- Not sensitive to dirty conditions by virtue of patented roller system
- Slotted holes for adjustment, circular holes for location
- 3 cable entries M 16 x 1.5

Ordering details

Product type description	AZ 16-12ZI-B1
Article number	101150050
EAN code	4030661136202

Approval

Approval



BG



USA/CAN

Classification

Standards	EN ISO 13849-1
B _{10d} Opener (NC)	2.000.000
B _{10d} Normally open contact (NO)	1.000.000
- notice	at 10% I _e and ohmic load
Mission time	20 Years
notice	$MTTF_d = \frac{B_{10d}}{0,1 \times n_{op}}$ $n_{op} = \frac{d_{op} \times h_{op} \times 3600 \text{ s/h}}{t_{cycle}}$

Global Properties

Product name	AZ 16ZI
Standards	EN 60947-5-1, BG-GS-ET-15
Materials	
- Material of the housings	Plastic, glass-fibre reinforced thermoplastic, self-extinguishing
- Material of the actuator	Stainless steel
- Material of the contacts	Silver
Housing coating	None
Weight	156 g

Mechanical data

Design of electrical connection	Screw connection
Cable section	
- Min. Cable section	0,75 mm ²
- Max. Cable section	2.5 mm ²
Design of actuators	straight, rigid
Mechanical life	> 1.000.000 operations
With ejection force (Y/N)	Yes
Positive break force	20 N
positive break travel	8 mm
Actuating speed	max. 2 m/s
Minimum actuating radius	250 mm
notice	All indications about the cable section are including the conductor ferrules.

Ambient conditions

Ambient temperature	
- Min. environmental temperature	-30 °C
- Max. environmental temperature	+80 °C
Protection class	IP67 to IEC/EN 60529

Electrical data

Design of control element	Normally open contact (NO), Opener (NC)
Switching principle	Creep circuit element
Number of auxiliary contacts	1 piece
Number of safety contacts	2 piece
Rated impulse withstand voltage U_{imp}	6 kV
Rated insulation voltage U_i	500 V
Thermal test current I_{the}	10 A
Utilisation category	AC-15: 230 V / 4 A, DC-13: 24 V / 4 A
Max. fuse rating	6 A gG D-fuse

ATEX

Explosion protection categories for gases	None
Explosion protected category for dusts	None

Dimensions

Dimensions of the sensor	
- Width of sensor	52 mm

- Height of sensor 90 mm
- Length of sensor 30 mm

notice

Minimum actuating radius on hinged guards 250 mm

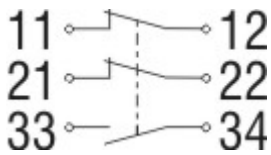
The axis of the hinge should be 5 mm above the top edge of the safety switch and in the same plane

The actuator is not available separately.

Included in delivery

- Individually coded actuator
- tamperproof screws
- Slot sealing plugs

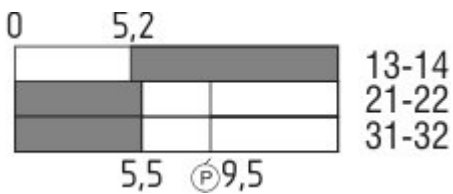
Diagram



Note Diagram

- positive break NC contact
- active
- no active
- Normally-open contact
- Normally-closed contact

Switch travel diagram



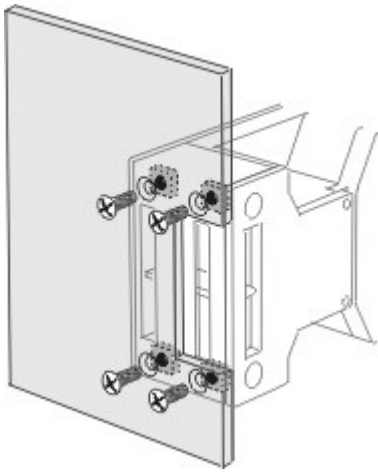
Notes Switch travel diagram

- Contact closed
- Contact open
- Setting range
- Break point
- Positive opening sequence/- angle
- VS** adjustable range of NO contact
- VÖ** adjustable range of NC contact
- N** after travel

Ordering suffix

The applicable ordering suffix is added at the end of the part number of the safety switch.

Order example: AZ 16-12ZI-B1-1762



...-1762

Versions with M5 nuts
For front mounting of safety switch, e.g. on sheet-steel covers
Cannot be retrofitted

...-1637

0,3 µm gold-plated contacts

...-M20

cable entries M20

Ordering code

AZ 16-(1)ZI-(2)-(3)

(1)	
3.0	3 Opener (NC)
12	1 Normally open contact (NO) / 2 Opener (NC)
(2)	Actuator:
B1	straight Design
B1-1747	straight Design with magnetic latch
B1-2024	straight Design with slot sealing plug
B1-2053	straight Design with ball latch
B1-2177	straight Design with centering guide
(3)	
M16	Cable entry M16
M20	Cable entry M20

Documents

Operating instructions and Declaration of conformity (jp) 540 kB, 07.06.2011

Code: mrl_az16zi_jp

Operating instructions and Declaration of conformity (nl) 376 kB, 18.08.2011

Code: mrl_az16zi_nl

Operating instructions and Declaration of conformity (it) 445 kB, 08.12.2011

Code: mrl_az16zi_it

Operating instructions and Declaration of conformity (pt) 361 kB, 23.01.2012

Code: mrl_az16zi_pt

Operating instructions and Declaration of conformity (br) 456 kB, 27.01.2011

Code: mrl_az16zi-ace_br

Operating instructions and Declaration of conformity (da) 361 kB, 25.01.2012

Code: mrl_az16zi_da

Operating instructions and Declaration of conformity (en) 528 kB, 27.01.2011

Code: mrl_az16zi_en

Operating instructions and Declaration of conformity (de) 577 kB, 24.02.2011

Code: mrl_az16zi_de

Operating instructions and Declaration of conformity (ro) 362 kB, 25.01.2012

Code: mrl_az16zi_ro

Operating instructions and Declaration of conformity (fr) 448 kB, 27.01.2011

Code: mrl_az16zi_fr

Operating instructions and Declaration of conformity (es) 739 kB, 08.02.2010

Code: mrl_az16zi_es

Operating instructions and Declaration of conformity (sv) 358 kB, 05.01.2012

Code: mrl_az16zi_sv

Operating instructions and Declaration of conformity (pl) 457 kB, 02.12.2011

Code: mrl_az16zi_pl

BG-test certificate (en) 536 kB, 05.01.2011

Code: z__16p02

BG-test certificate (de) 544 kB, 05.01.2011

Code: z__16p01

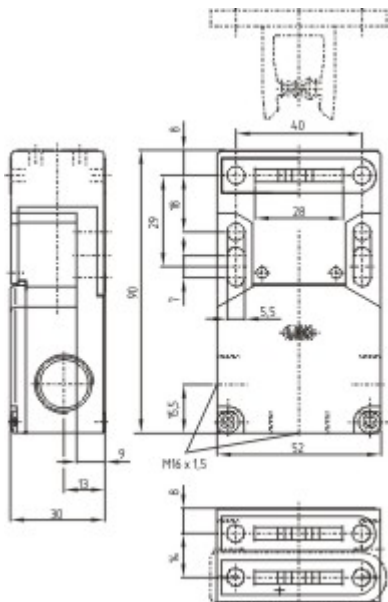
CCC certification (en) 1 MB, 19.05.2011

Code: q_175p02

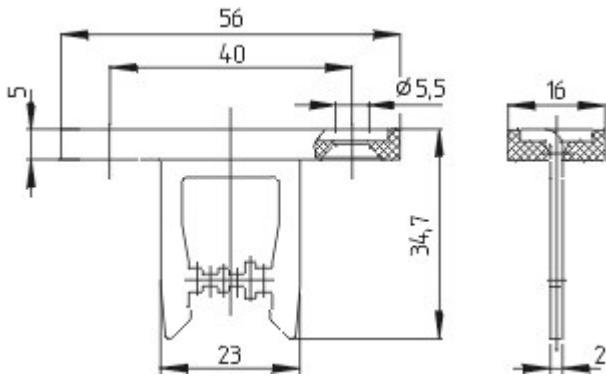
CCC certification (cn) 1 MB, 19.05.2011

Code: q_175p03

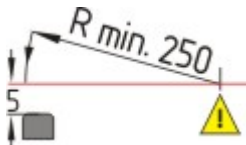
Images



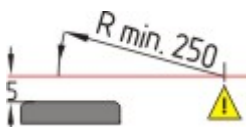
Dimensional drawing (basic component)



Dimensional drawing (miscellaneous)



Actuating radius



Actuating radius

System components

Mounting accessories



1135338 - TAMPERPROOF SCREWS M 5 x 12

- To mount the actuator
- Higher protection against tampering with interlock
- Protects against unauthorised removal of actuator
- Various lengths available



101135339 - TAMPERPROOF SCREWS M 5 x 16

- To mount the actuator
- Higher protection against tampering with interlock
- Protects against unauthorised removal of actuator
- Various lengths available



101135340 - TAMPERPROOF SCREWS M 5 x 20

- To mount the actuator
- Higher protection against tampering with interlock
- Protects against unauthorised removal of actuator
- Various lengths available

Image

Image
et=sS
e