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
- Coding level "High" according to ISO 14119
- 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
- Insensitive to soiling
- 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	4030661154442
eCl@ss	27-27-26-02

Approval

Approval	BG cULus USA/CAN

Classification

Standards	EN ISO 13849-1
B10d Normally-closed contact (NC)	2.000.000
B10d Normally open contact (NO)	1.000.000
- notice	at 10% Ie and ohmic load
Mission time	20 Years
notice	$MTTF_d = \frac{B_{10d}}{0,1 \times n_{op}}$ $n_{op} = \frac{d_{op} \times h_{op} \times 3600\ s/h}{t_{cycle}}$

Global Properties

Permanent light	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

Mechanical data

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

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
Number of safety contacts	2
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
- Length of sensor	30 mm

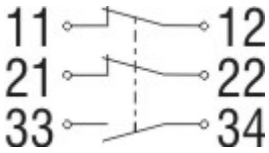
notice

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

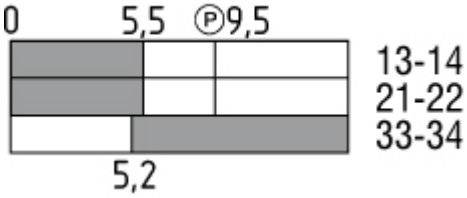
Individually coded actuator
tamperproof screws
Slot sealing plugs

Diagram



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

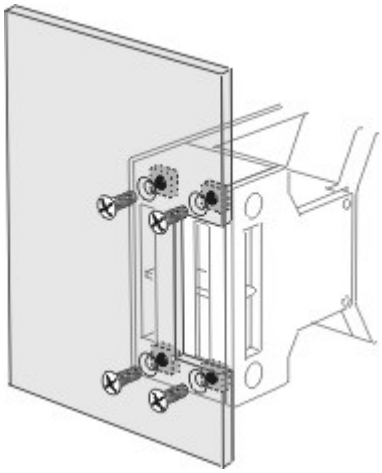
Switch travel diagram



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) 732 kB, 20.01.2017
Code: mrl_az16zi_jp

Operating instructions and Declaration of conformity (nl) 492 kB, 02.08.2018
Code: mrl_az16zi_nl

Operating instructions and Declaration of conformity (it) 465 kB, 21.11.2016
Code: mrl_az16zi_it

Operating instructions and Declaration of conformity (pt) 466 kB, 20.03.2019
Code: mrl_az16zi_pt

Operating instructions and Declaration of conformity (da) 361 kB, 25.01.2012
Code: mrl_az16zi_da

Operating instructions and Declaration of conformity (en) 517 kB, 28.09.2016

Code: mrl_az16zi_en

Operating instructions and Declaration of conformity (de) 515 kB, 28.09.2016
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) 468 kB, 18.11.2016
Code: mrl_az16zi_fr

Operating instructions and Declaration of conformity (es) 471 kB, 21.11.2016
Code: mrl_az16zi_es

Operating instructions and Declaration of conformity (cn) 609 kB, 11.05.2017
Code: mrl_az16zi_cn

Operating instructions and Declaration of conformity (sv) 343 kB, 17.06.2015
Code: mrl_az16zi_sv

Operating instructions and Declaration of conformity (pl) 503 kB, 01.12.2016
Code: mrl_az16zi_pl

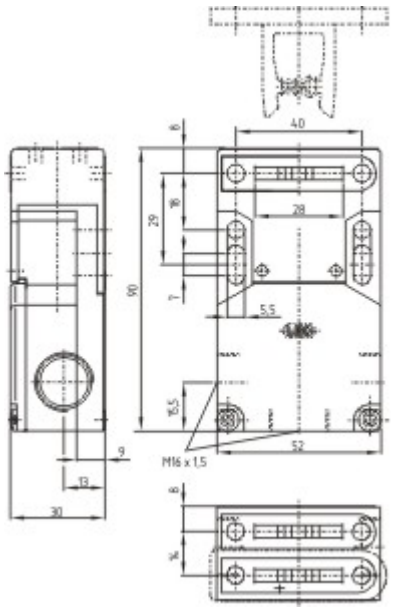
BG-test certificate (en) 536 kB, 05.01.2011
Code: z__16p02

BG-test certificate (de) 203 kB, 02.03.2016
Code: z__16p01

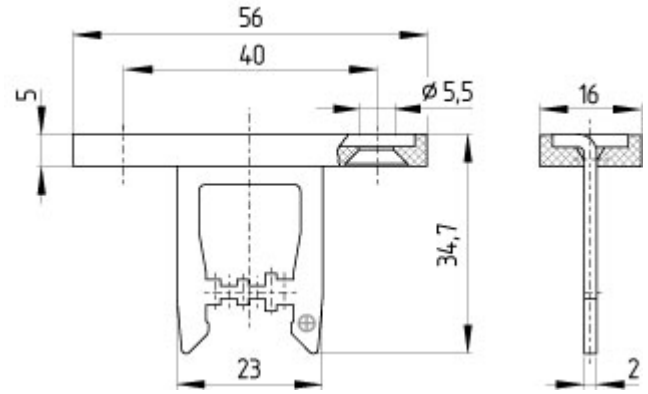
CCC certification (cn) 3 MB, 18.10.2017
Code: q_175p03

CCC certification (en) 3 MB, 29.08.2017
Code: q_175p02

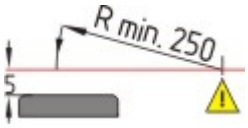
Images



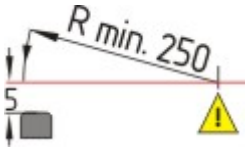
Dimensional drawing (basic component)



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