

Datasheet - AZ 16 ST1-AS

AS interface safety at work / Safety switchgear / Safety switches / AZ 16 AS



- connector plug M12, bottom, 4-pole
- Thermoplastic enclosure
- Long life
- 52 mm x 90 mm x 30 mm
- AS-Interface LED status display
- Actuator coded
- Safety switch with separate actuator
- Integrated AS-Interface
- AS interface M12 Plug-in connection

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

Ordering details

Product type description	AZ 16 ST1-AS
Article number	101161809
EAN code	4030661197241
eCl@ss	27-27-26-02

Approval

Approval



Classification

Basically suitable up to


Standards	EN ISO 13849-1, IEC 61508
PL	up c
Control category	1
PFH	1.14 x 10 ⁻⁶ / h
- notice	up to max. 100.000 switching cycles/year
SIL	up 1
Mission time	20 Years

If a fault exclusion for hazardous damage of the 1-channel mechanics is authorized and an adequate protection against tampering is

ensured, suitable for use up to:

PL	up d
Control category	3
PFH value	1.01 x 10 ⁻⁷ / h
- notice	up to max. 100.000 switching cycles/year
SIL	up 2
Mission time	20 Years


Global Properties

Product name	AZ 16 AS
Standards	EN 60947-5-1, EN 50295, EN ISO 13849-1, IEC 61508
Compliance with the Directives (Y/N) 	Yes
Materials	
- Material of the housings	glass-fibre reinforced thermoplastic, self-extinguishing
Housing coating	None
Weight	115 g
Response time	< 100 ms

Mechanical data

Design of electrical connection	connector plug M12, 4-pole
connector	bottom
Mechanical life	> 1.000.000 operations
higher Latching force (Y/N)	No
With ejection force (Y/N)	Yes

Ambient conditions

Ambient temperature	
- Min. environmental temperature	-25 °C
- Max. environmental temperature	+60 °C
Storage and transport temperature	
- Min. Storage and transport temperature	-25 °C
- Max. Storage and transport temperature	+85 °C
Protection class	IP67 to IEC/EN 60529
Protection rating	II 
Air clearances and creepage distances To IEC/EN 60664-1	
- Rated impulse withstand voltage U _{imp}	0,8 kV
- Rated insulation voltage U _i	32 VDC
- Overvoltage category	III
- Degree of pollution	3

Electrical data - AS interface

AS-i Supply voltage	26.5 ... 31.6 VDC, Protection against polarity reversal
AS-i operating current	≤ 50 mA
AS-i Device insulation	internally short-circuit proof
AS-i Specification	
- version	V 2.1
- Profile	S-0.B.F.E
- IO-Code	0x0
- ID-Code	0xB
- ID-Code1	0xF

- ID-Code2	0xE
AS-i Inputs	
- Channel 1	Data bits DI 0/DI 1= dynamic code transmission
- Channel 2	Data bits DI 2/DI 3= dynamic code transmission
AS-i Parameter bits	P0....P3 not used
- Set the parameter outputs to "1111" (0xF)	
AS-i input module address	0
- Default on address 0, programmable via the AS-Interface Master or Hand-held programming device	

LED switching conditions display

LED switching conditions display (Y/N)	Yes
AS-i LED switching conditions display	
(1) green LED	Supply voltage
(2) red LED	Communication error / slave address = 0
(3) yellow LED	Enabling status

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	30 mm
- Length of sensor	90 mm

Pin assignment

1	AS-i +
2	None
3	AS-i -
4	None

Included in delivery

Actuators must be ordered separately.

Ordering suffix

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

Order example: AZ 16 ST1-AS-**2254**

....**2254** Latching force 5 N

Ordering code

AZ 16 (1)-AS (2)

(1)

ST1	connector bottom
ST2	connector right
ST3	connector left
(2)	
<i>without</i>	without latching
R	Latching 30 N
R-2254	Latching 5 N

Documents

Operating instructions and Declaration of conformity (de) 229 kB, 10.01.2012

Code: mrl_az16as_de

Operating instructions and Declaration of conformity (fr) 231 kB, 02.02.2012

Code: mrl_az16as_fr

Operating instructions and Declaration of conformity (nl) 229 kB, 02.02.2012

Code: mrl_az16as_nl

Operating instructions and Declaration of conformity (sv) 228 kB, 23.01.2012

Code: mrl_az16as_sv

Operating instructions and Declaration of conformity (it) 229 kB, 02.02.2012

Code: mrl_az16as_it

Operating instructions and Declaration of conformity (en) 244 kB, 08.02.2012

Code: mrl_az16as_en

Operating instructions and Declaration of conformity (jp) 479 kB, 16.02.2012

Code: mrl_az16as_jp

Operating instructions and Declaration of conformity (da) 229 kB, 26.01.2012

Code: mrl_az16as_da

Operating instructions and Declaration of conformity (pt) 231 kB, 22.05.2012

Code: mrl_az16as_pt

Operating instructions and Declaration of conformity (cs) 219 kB, 20.01.2014

Code: mrl_az16as_cs

Operating instructions and Declaration of conformity (pl) 208 kB, 18.11.2013

Code: mrl_az16as_pl

Operating instructions and Declaration of conformity (es) 231 kB, 04.04.2012

Code: mrl_az16as_es

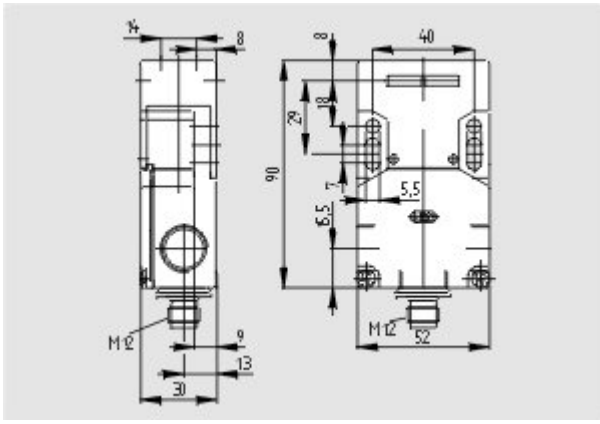
BG-test certificate (en, de) 710 kB, 23.11.2004

Code: z_16ap01

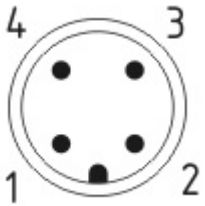
TÜV certification (de, en) 1 MB, 24.09.2014

Code: z_asip03

Images



Dimensional drawing (basic component)



Contact arrangement

System components

Actuator

101083036 - AZ 15/16-B1



101092711 - AZ 15/16-B1-1747

- For play-free interlocking of light guards
- Suitable for retrofitting



101093553 - AZ 15/16-B1-1747

- For play-free interlocking of light guards
- The magnetic latch can be easily fitted in any actuating plane
- Suitable for retrofitting



101108276 - AZ 15/16-B1-2024





101108278 - AZ 15/16-B1-2024 WITH SLOT SEALING PLUG

- For protection against the ingress of course dirt
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101111079 - AZ 15/16-B1-2053

- For interlocking of light to medium-weight guards
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101111081 - AZ 15/16-B1-2053 WITH BALL LATCH

- For interlocking of light to medium-weight guards
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101126793 - AZ 15/16-B1-2177

- For interlocking of light, unguided guards
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101126794 - AZ 15/16-B1-2177 WITH CENTERING GUIDE

- For interlocking of light, unguided guards
-



101137408 - AZ 15/16-B1-2245

- Damps vibration on guard device
-



101095558 - AZ 15/16-B2

- For very small actuating radii in line with the plane of the actuator
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101096091 - AZ 15/16-B2-1747

- For very small actuating radii in line with the plane of the actuator
- Suitable for retrofitting
- For play-free interlocking of light guards



101096089 - AZ 15/16-B2-1747 WITH MAGNETIC LATCH

- For very small actuating radii in line with the plane of the actuator
- Suitable for retrofitting
- For play-free interlocking of light guards
- The magnetic latch can be easily fitted in any actuating plane



101095550 - AZ 15/16-B3

- For very small actuating radii at 90° to the plane of the actuator



101096090 - AZ 15/16-B3-1747 WITH MAGNETIC LATCH

- For very small actuating radii at 90° to the plane of the actuator
- Suitable for retrofitting
- For play-free interlocking of light guards
- The magnetic latch can be easily fitted in any actuating plane



101096092 - AZ 15/16-B3-1747

- For very small actuating radii at 90° to the plane of the actuator
- Suitable for retrofitting
- For play-free interlocking of light guards



101137434 - AZ 15/16-B6

- For very small actuating radii in line with or at 90° to the plane of the actuator

Door-handle system



AZ 16-ST30

- Latching handle
- Suitable for all types of guard