

## 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	$1.14 \times 10^{-6} / h$
- 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 <sup>-7</sup> / h
- notice	up to max. 100.000 switching cycles/year
SIL	up 2
Mission time	20 Years

## Global Properties

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Permanent light	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
Response time	< 100 ms


## Mechanical data

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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

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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 <sub>imp</sub>	0,8 kV
- Rated insulation voltage U <sub>i</sub>	32 VDC
- Overvoltage category	III
- Degree of pollution	3

## Electrical data - AS interface

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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

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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

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

## Dimensions

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Dimensions of the sensor	
- Width of sensor	52 mm
- Height of sensor	30 mm
- Length of sensor	90 mm

## Pin assignment

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

## Included in delivery

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Actuators must be ordered separately.

## Ordering suffix

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*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

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AZ 16 (1)-AS (2)

(1)

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

## Documents

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**Operating instructions and Declaration of conformity (de)** 229 kB, 16.11.2017

Code: mrl\_az16as\_de

**Operating instructions and Declaration of conformity (fr)** 250 kB, 26.01.2018

Code: mrl\_az16as\_fr

**Operating instructions and Declaration of conformity (nl)** 251 kB, 02.08.2018

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)** 250 kB, 16.11.2017

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)** 252 kB, 22.01.2018

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 (cn)** 325 kB, 21.06.2017

Code: mrl\_az16as\_cn

**Operating instructions and Declaration of conformity (pl)** 258 kB, 02.05.2018

Code: mrl\_az16as\_pl

**Operating instructions and Declaration of conformity (es)** 256 kB, 03.01.2018

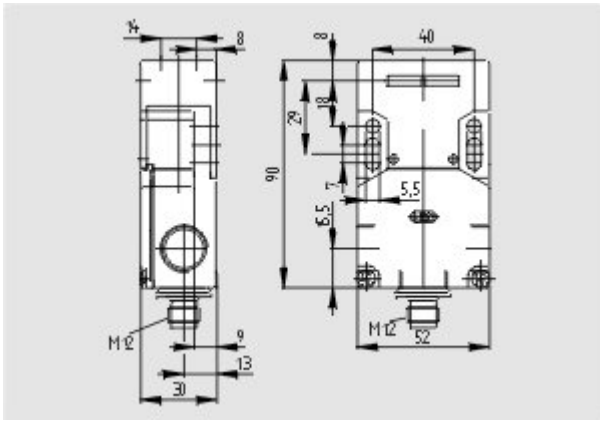
Code: mrl\_az16as\_es

**TÜV certification (de, en)** 1 MB, 24.09.2014

Code: z\_asip03

## Images

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Dimensional drawing (basic component)

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The data and values have been checked thoroughly. Technical modifications and errors excepted.

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