23.07.2015

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# Datasheet - AZ 16 ST1-AS R

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

#### ☑ Preferred typ



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

### **Ordering details**

Product type description
Article number
EAN code
eCl@ss

### Approval

Approval

#### Thermoplastic enclosure

Long life

- 52 mm x 90 mm x 30 mm
- AS-Interface LED status display

connector plug M12, bottom, 4-pole

- Actuator coded
- Safety switch with separate actuator
- Integrated AS-Interface
- AS interface M12 Plug-in connection

AZ 16 ST1-AS R 101167262 4030661218427

27-27-26-02

TÜV TÜV USA/CAN

### 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 Standards	AZ 16 AS EN 60947-5-1, EN 50295, EN ISO 13849-1, IEC 61508
Compliance with the Directives (Y/N) CE	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)	Yes
Latching force	30 N
With ejection force (Y/N)	No

# **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 Uimp	0,8 kV
- Rated insulation voltage Ui	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	P0P3 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

Explosion protected category for dusts	None
Explosion protection categories for gases	None
TEX	
(3) yellow LED	Enabling status
2) red LED	Communication error / slave address = 0
(1) green LED	Supply voltage
AS-i LED switching conditions display	
_ED switching conditions display (Y/N)	Yes

### 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 code

AZ 16 <mark>(1)</mark> -AS <mark>(2)</mark>	
(1)	
ST1	connector bottom
ST2	connector right
ST3	connector left
(2)	
without	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

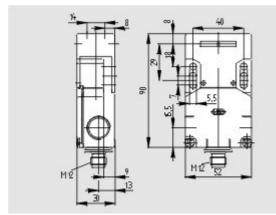
**Operating instructions and Declaration of conformity** (pl) 208 kB, 18.11.2013 Code: mrl\_az16as\_pl

**Operating instructions and Declaration of conformity** (es) 231 kB, 04.04.2012 Code: mrl\_az16as\_es

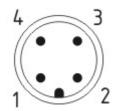
**BG-test certificate** (en, de) 710 kB, 23.11.2004 Code: z\_16ap01

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





### 101096091 - AZ 15/16-B2-1747

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





#### AZ 16-STS30

- · Latching handle
- · Suitable for all types of guard

K.A. Schmersal GmbH & Co. KG, Möddinghofe 30, D-42279 Wuppertal The data and values have been checked throroughly. Technical modifications and errors excepted. Generiert am 23.07.2015 - 22:52:39h Kasbase 3.1.12.F.64I