

## Datasheet - TS 335 ST-AS



AS interface safety at work / Safety switchgear / Safety switches / 335 AS / AS - 335 Plunger  
S



- AS-Interface M12 connector
- Metal enclosure
- Wide range of alternative actuators
- Good resistance to oil and petroleum spirit
- 40,5 mm x 96 mm x 38 mm
- Actuator heads can be repositioned by 4 x 90°
- Mounting details to EN 50047
- AS-Interface LED and status display
- Integrated AS-Interface
- Suitable for AS-i Power24

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

### Ordering details

Product type description	TS 335 ST-AS
Article number	TS 335 ST-AS
EAN Code	
eCl@ss	27-27-26-01

### Approval

Approval



### Classification

Standards	EN ISO 13849-1, IEC 61508
PL	up c
Control category	up 1
PFH	1.14 x 10 <sup>-6</sup> /
- notice	up to max. 100000 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:

Standards	EN ISO 13849-1, IEC 61508
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PL	up d
Control category	up 3
PFH value	1.01 x 10 <sup>-7</sup> /
- notice	up to max. 100000 switching cycles/year
SIL	up 2
Mission time	20 Years

## Global Properties

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Permanent light	AS - 335 Druckbolzen S
Standards	EN 50295, EN 60947-5-1, EN ISO 13849-1, IEC 61508
Compliance with the Directives (Y/N) 	Yes
Suitable for safety functions (Y/N)	Yes
Actuator type	B to EN 50041
Materials	
- Material of the housings	Zink
- Material of the connector	Metal film
- Material of the contacts	Silver
Housing coating	painted
Housing construction form	Norm construction design
Weight	

## Mechanical data

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Design of electrical connection	connector plug M12, 5-pole, can be rotated
Mechanical life	1.000.000 operations
Switching frequency	5000
Design of actuating element	Plunger
restistance to shock	30 / 11
Resistance to vibration	10 ... 150, Amplitude 0,35 / 5
Actuating speed for vertical actuation	
- Min. Actuating speed	
- Max. Actuating speed	0,5

## Ambient conditions

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Ambient temperature	
- Min. environmental temperature	-25
- Max. environmental temperature	+60
- Min. Storage and transport temperature	-25
- Max. Storage and transport temperature	+85
Relative humidity	30 ... 95
- non-condensing	
- non-icing	
Protection class	IP67 to IEC/EN 60529

## Electrical data

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Design of control element	Opener (NC)
Switching principle	Creep circuit element
- positive break NC contact 	
Number of auxiliary contacts	0
Number of safety contacts	2

Rated impulse withstand voltage	800
Rated insulation voltage	32
Thermal test current	10 A
Utilisation category	AC-15: 230 V / 4 A, DC-13: 24 V / 1 A
Max. fuse rating	6 A gG D-fuse

## Electrical data - AS interface

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AS-i Supply voltage	18 ... 31.6 VDC, Protection against polarity reversal
AS-i operating current	≤ 50
AS-i Device insulation	internally short-circuit proof
AS-i Specification	
- version	V 3.0
- Profile	S-0.B.F.F
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 Outputs	DO 0 ... DO 3 not used
AS-i Parameter bits	P1 ... P3 not used
- P0	Channel 2 switched
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) yellow LED	Channel 1 / AS-i SaW Bit 0,1
(2) green/red LED (AS-i duo LED)	Supply voltage / Communication error / slave address = 0
(3) yellow LED	Channel 2 / AS-i SaW Bit 2,3

## 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	40.5
- Height of sensor	123.5
- Length of sensor	38

## Pin assignment

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1	AS interface +
2	None
3	AS interface -
4	None
5	Functional earth connection

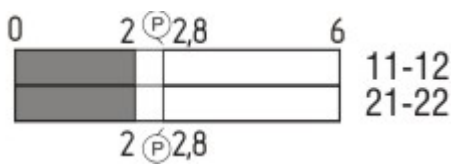
## notice

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The addressing must take place via the M12 connector or the flat cable connection.

## Switch travel diagram

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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

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

Order example: TS 335 ST-AS-FK

...-FK

\$missingName\$

## Ordering code

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T(1) 335 (2)-AS

(1)

<b>S</b>	Plunger S
<b>R</b>	Roller plunger R
<b>1K</b>	Offset roller lever 1K
<b>3K</b>	Angle roller lever 3K
<b>H</b>	Roller lever H
<b>1H</b>	Roller lever 1H
<b>7H</b>	Roller lever 7H
(2)	
<b>ST</b>	connector plug M12, Metal film
<b>FK</b>	Connection for flat cable

## Documents

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**Operating instructions and Declaration of conformity** (en) 316 kB, 22.11.2017

Code: mrl\_t335as\_en

**Operating instructions and Declaration of conformity** (de) 610 kB, 01.02.2010

Code: mrl\_t335as\_de

**TÜV certification** (de, en) 46 kB, 02.04.2014

Code: z\_t3p01

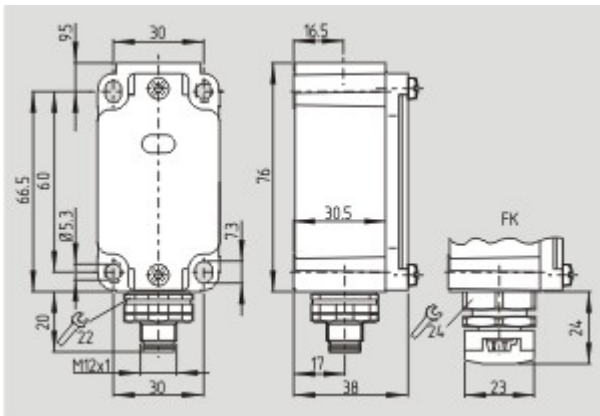
## Images

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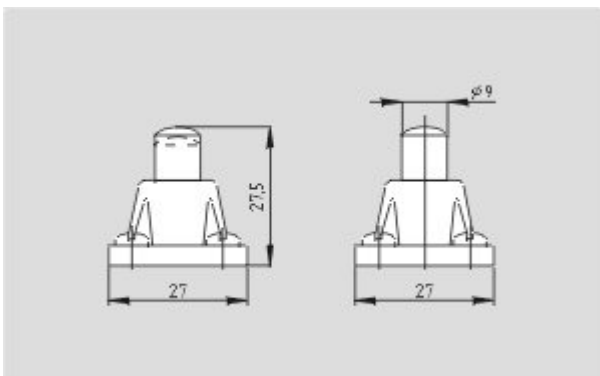
Product photo

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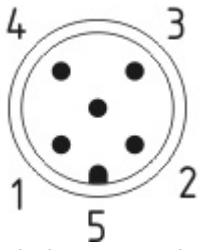
Dimensional drawing (basic component)

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Dimensional drawing (actuator)

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Contact arrangement

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Operating principle

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

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