

## Datasheet - T3K 336 ST-AS



AS interface safety at work / Safety switchgear / Safety switches / 336 AS / AS - 336 Angle roller lever 3K



- Actuation from bottom parallel to the switch, therefore only suitable for small housings.
- AS-Interface M12 connector
- Thermoplastic 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 | T3K 336 ST-AS |
| Article number           | T3K 336 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 |
| 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 - 336 Winkelhebel 3K   |
| 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   |
| Materials  |   |
| - Material of the housings   | Plastic, glass-fibre reinforced thermoplastic, self-extinguishing |
| - Material of the connector  | Metal film  |
| - Material of the contacts   | Silver  |
| Housing coating  |   |
| Housing construction form  | Norm construction design  |
| Weight   |   |

## Mechanical data

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|   |                                |
|---|--------------------------------|
| Design of actuating element                             | Angle roller lever             |
| Design of electrical connection                         | connector plug M12, 4-pole     |
| Mechanical life   | 1.000.000 operations           |
| Switching frequency                                     | 5000                           |
| restistance to shock                                    | 30 / 11                        |
| Resistance to vibration                                 | 10 ... 150, Amplitude 0,35 / 5 |
| Actuating speed with actuating angle 30° to switch axis |                                |
| - 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,<br>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 electronics   |   |
| - Total  |   |
| 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        | 58.25 |
| - Height of sensor       | 152.5 |
| - Length of sensor       | 38    |

## Pin assignment

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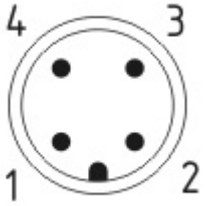
|   |                |
|---|----------------|
| 1 | AS interface + |
| 2 | None           |
| 3 | AS interface - |
| 4 | None           |

## notice

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

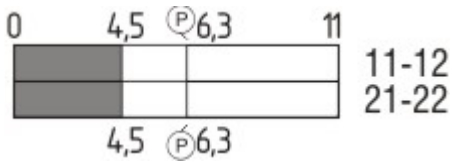
## Diagram



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: T3K 336 ST-AS-**FK**

...-FK

\$missingName\$

## Ordering code

T(1) 336 (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        |

7H

Roller lever 7H

(2)

ST

connector plug M12, Metal film

FK

Connection for flat cable

## Documents

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TÜV certification (de, en) 46 kB, 02.04.2014

Code: z\_t3p01

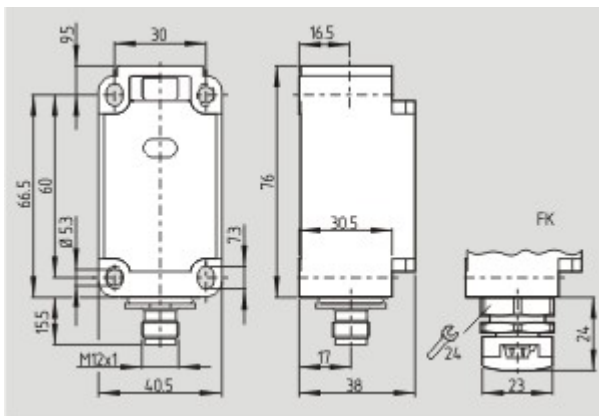
## Images

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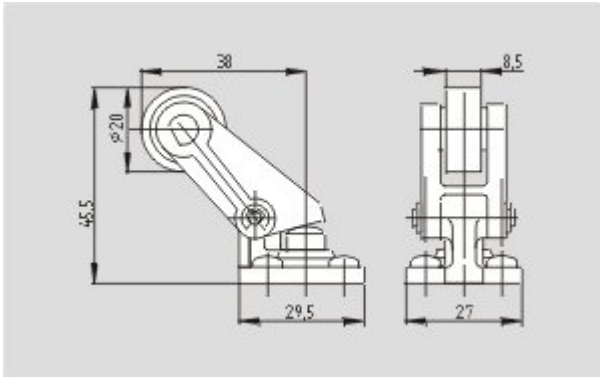
Product photo

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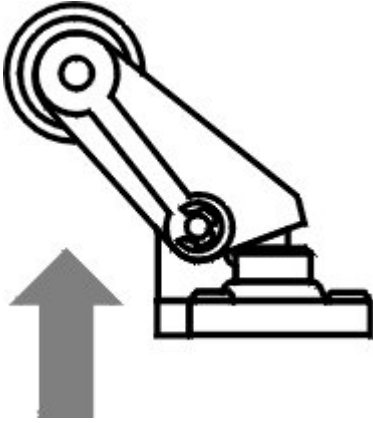
Dimensional drawing (basic component)

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Dimensional drawing (actuator)

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Operating principle

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

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