

Datasheet - Z4K 236 ST-AS



AS interface safety at work / Safety switchgear / Safety switches / 236 AS / AS - 236 Angle roller lever 4K



- AS-Interface M12 connector
- Thermoplastic enclosure
- Wide range of alternative actuators
- Good resistance to oil and petroleum spirit
- 30 mm x 77 mm x 30 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
- Actuation from bottom parallel to the switch, therefore only suitable for small housings.

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

Ordering details

| | |
|--------------------------|---------------|
| Product type description | Z4K 236 ST-AS |
| Article number | Z4K 236 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 ⁻⁶ / |
| - 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 ⁻⁷ / |
| - notice | up to max. 100000 switching cycles/year |
| SIL | up 2 |
| Mission time | 20 Years |

Global Properties

| | |
|--|---|
| Permanent light | AS - 236 Winkelhebel 4K |
| 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 | Plastic |
| - Material of the contacts | Silver |
| Housing coating | |
| Housing construction form | Norm construction design |
| Weight | |

Mechanical data

| | |
|--|--------------------------------|
| Design of electrical connection | connector plug M12, 4-pole |
| Mechanical life | 1.000.000 operations |
| Switching frequency | 5000 |
| Design of actuating element | Angle roller lever |
| Actuating force | 6 |
| restistance to shock | 30 / 11 |
| Resistance to vibration | 10 ... 150, Amplitude 0,35 / 5 |
| Positive break force | 16 |
| Actuating speed for vertical actuation | |
| - Max. Actuating speed | 1 |

Ambient conditions

| | |
|--|----------------------|
| 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 |
| Protection rating | II |

Electrical data

| | |
|---|---------------------|
| Design of control element | Opener (NC) |
| Switching principle | Snap switch 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

| | |
|--|---|
| 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

| | |
|--|--|
| 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

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

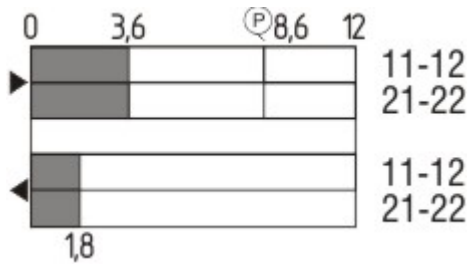
Dimensions

| | |
|--------------------------|-------|
| Dimensions of the sensor | |
| - Width of sensor | 42 |
| - Height of sensor | 120.5 |
| - Length of sensor | 30 |






Pin assignment

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

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: Z4K 236 ST-AS-FK

...-FK \$missingName\$

Ordering code

(1)(2) 236 (3)-AS

(1)

| | |
|---|-------------|
| Z | Snap action |
| T | Slow action |

(2)

| | |
|-----|------------------------|
| S | Plunger S |
| R | Roller plunger R |
| 1R | Offset roller lever 1R |
| K | Angle roller lever K |
| 3K | Angle roller lever 3K |
| 4K | Angle roller lever 4K |
| K4 | Angle roller lever K4 |
| 1H | Roller lever 1H |
| 12H | Roller lever 12H |
| 14H | Roller lever 14H |
| 7H | Roller lever 7H |

(3)

| | |
|----|-----------------------------|
| ST | connector plug M12, Plastic |
| FK | Connection for flat cable |

Documents

Operating instructions and Declaration of conformity (it) 309 kB, 09.10.2018

Code: mrl_zt235-236as_it

Operating instructions and Declaration of conformity (pt) 314 kB, 09.10.2018

Code: mrl_zt235-236as_pt

Operating instructions and Declaration of conformity (de) 320 kB, 09.10.2018

Code: mrl_zt235-236as_de

Operating instructions and Declaration of conformity (es) 312 kB, 09.10.2018

Code: mrl_zt235-236as_es

Operating instructions and Declaration of conformity (da) 301 kB, 09.10.2018

Code: mrl_zt235-236as_da

Operating instructions and Declaration of conformity (nl) 346 kB, 09.10.2018

Code: mrl_zt235-236as_nl

Operating instructions and Declaration of conformity (en) 313 kB, 09.10.2018

Code: mrl_zt235-236as_en

Operating instructions and Declaration of conformity (fr) 314 kB, 09.10.2018

Code: mrl_zt235-236as_fr

Operating instructions and Declaration of conformity (jp) 422 kB, 09.10.2018

Code: mrl_zt235-236as_jp

Operating instructions and Declaration of conformity (pl) 327 kB, 09.10.2018

Code: mrl_zt235-236as_pl

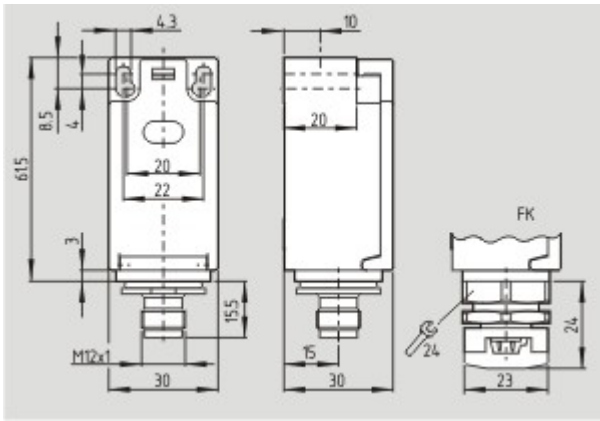
TÜV certification (de, en) 249 kB, 20.01.2017

Code: z_235p03

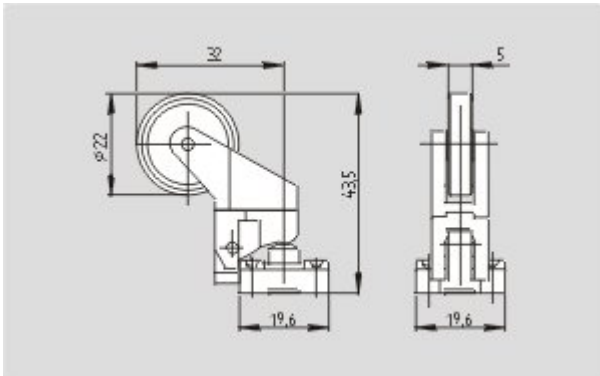
Images



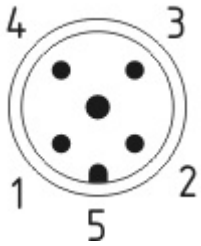
Product photo



Dimensional drawing (basic component)



Dimensional drawing (actuator)



Contact arrangement

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

Generiert am 13.02.2019 - 12:41:26h Kasbase 3.3.0.F.64I