

## Datasheet - TK4 256-11ZUE

Position switch / Thermoplastic enclosure 256 - EN 50047 with Actuator / 256 Angle roller lever K4



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

- 2 cable entries M 20 x 1.5
- Mounting details to EN 50047
- Thermoplastic enclosure
- Double-insulated  $\square$
- 58 mm x 50,5 mm x 31 mm
- Good resistance to oil and petroleum spirit
- Wide range of alternative actuators
- Actuator heads can be repositioned by 4 x 90°

### Ordering details

|                          |               |
|--------------------------|---------------|
| Product type description | TK4 256-11ZUE |
| Article number           | 101145181     |
| EAN Code                 | 4030661136486 |
| eCl@ss                   | 27-27-26-01   |

### Approval


Approval



### Classification

|                                   |  |
|-----------------------------------|--|
| Standards                         | ISO 13849-1  |
| B10d Normally-closed contact (NC) | 20.000.000   |
| Mission time                      | 20 Years   |
| notice                            | $MTTF_d = \frac{B_{10d}}{0,1 \times n_{op}}$ $n_{op} = \frac{d_{op} \times h_{op} \times 3600 \text{ s/h}}{t_{cycle}}$ |

### Global Properties

|  |   |
|--|---|
| Permanent light  | T 256 Winkelhebel K4  |
| Standards  | IEC 60947-5-1, ISO 13849-1, BG-GS-ET-15                           |
| 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 contacts   | Silver  |
| Housing coating  | None  |
| Housing construction form  | Norm construction design  |
| Weight   | 75  |


## Mechanical data

|   |   |
|---|---|
| Design of electrical connection                         | Screw connection  |
| Cable section   |   |
| - Min. Cable section                                    | 0,75  |
| - Max. Cable section                                    | 2.5   |
| Mechanical life   | 20.000.000 operations   |
| Switching frequency                                     | max. 5000 /h  |
| notice  | All indications about the cable section are including the conductor ferrules. |
| Design of actuating element                             | Angle roller lever  |
| Actuating force   | min. 6 N  |
| Bounce duration   | in accordance with actuating speed  |
| Switchover time   | in accordance with actuating speed  |
| Positive break force                                    | 16 N  |
| Actuating speed with actuating angle 30° to switch axis |   |
| - Min. Actuating speed                                  | 336 mm/min  |
| - Max. Actuating speed                                  | 1 m/s   |

## Ambient conditions

|                                  |        |
|----------------------------------|--------|
| Ambient temperature              |        |
| - Min. environmental temperature | -30 °C |
| - Max. environmental temperature | +80 °C |
| Protection class                 | IP67   |

## Electrical data

|   |  |
|---|--|
| Design of control element   | Normally open contact (NO), Opener (NC)  |
| Switching principle   | Slow action with overlapping contacts    |
| - positive break NC contact  |  |
| Number of auxiliary contacts  | 1  |
| Number of safety contacts   | 1  |
| Rated impulse withstand voltage $U_{imp}$   | 6 kV                                     |
| Rated insulation voltage $U_i$  | 500 V                                    |
| Thermal test current $I_{the}$  | 10 A                                     |
| Utilisation category  | AC-15: 230 V / 4 A,<br>DC-13: 24 V / 1 A |
| Required rated short-circuit current  | 1000 A                                   |
| Max. fuse rating  | 6 A gG D-fuse                            |

## Dimensions

Dimensions of the sensor

- Width of sensor 58 mm
- Height of sensor 94 mm
- Length of sensor 31 mm

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

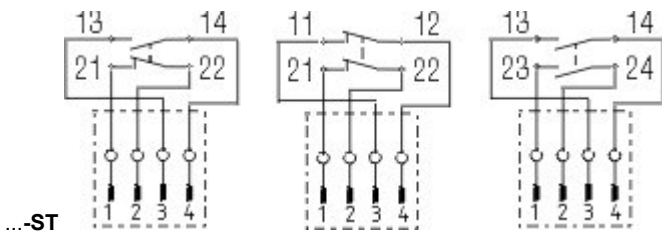
The applicable ordering suffix is added at the end of the part number of the safety switch.  
Order example: TK4 256-11ZUE-1637

...-1637 0,3 µm gold-plated contacts

...-NPT Cable entry NPT 1/2"

...-2310 M12 connector with B-coding

...-1297 Enclosure with transverse slotted holes



M12 connector with A-coding

## Ordering code

(1)(2) 2(3)6-(4)Z(5)-(6)-(7)-(8)-(9)

(1)

Z Snap action

T Slow action

(2)

S Plunger S

R Roller plunger R

4S Plunger 4S

4R Roller plunger 4R

1R Offset roller lever 1R

K Offset roller lever K

3K Angle roller lever 3K

4K Angle roller lever 4K

K4 Angle roller lever K4

1H Roller lever 1H

7H Roller lever 7H

10H Rod lever 10H

12H Roller lever 12H

14H Roller lever 14H

AF Spring rod lever AF

(3)

3 slim design

5 large design

(4)

02 2 Opener (NC)

11 1 Normally open contact (NO) / 1 Opener (NC)

20 2 Normally open contact (NO), (Switch with 2 NO contacts are not for security tasks)

(5)

H Slow action with staggered contacts

UE Slow action with overlapping contacts

(6)

without Cable entry M20

ID IDC method of termination

NPT cable entry NPT 1/2"

ST M12 connector with A-coding

ST-2310 M12 connector with B-coding

(7)

1297 Enclosure with transverse slotted holes

(8)

|      |  |
|------|--|
| 2138 | Roller lever 7H for Position switches with safety function |
| (9)  |  |
| 1637 | gold-plated contacts                                       |

## Documents

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**Operating instructions and Declaration of conformity** (en) 160 kB, 15.06.2018

Code: mrlk\_zt235\_236\_en

**Operating instructions and Declaration of conformity** (es) 161 kB, 21.06.2018

Code: mrlk\_ZT235\_236\_es

**Operating instructions and Declaration of conformity** (de) 160 kB, 15.06.2018

Code: mrlk\_ZT235\_236\_de

**Operating instructions and Declaration of conformity** (pl) 198 kB, 27.06.2018

Code: mrlk\_ZT235\_236\_pl

**Operating instructions and Declaration of conformity** (nl) 162 kB, 15.06.2018

Code: mrlk\_ZT235\_236\_nl

**Operating instructions and Declaration of conformity** (pt) 163 kB, 27.06.2018

Code: mrlk\_ZT235\_236\_pt

**Operating instructions and Declaration of conformity** (it) 162 kB, 15.06.2018

Code: mrlk\_ZT235\_236\_it

**Operating instructions and Declaration of conformity** (fr) 164 kB, 15.06.2018

Code: mrlk\_ZT235\_236\_fr

**Operating instructions and Declaration of conformity** (cs) 194 kB, 25.01.2019

Code: mrlk\_ZT235\_236\_cs

**Declaration of conformity** (es) 91 kB, 18.06.2018

Code: KAS\_konfi\_nsr\_zt2xx-3xx\_es

**Declaration of conformity** (pl) 130 kB, 18.06.2018

Code: KAS\_konfi\_nsr\_zt2xx-3xx\_pl

**Declaration of conformity** (it) 89 kB, 18.06.2018

Code: KAS\_konfi\_nsr\_zt2xx-3xx\_it

**Declaration of conformity** (pt) 90 kB, 18.06.2018

Code: KAS\_konfi\_nsr\_zt2xx-3xx\_pt

**Declaration of conformity** (fr) 89 kB, 18.06.2018

Code: KAS\_konfi\_nsr\_zt2xx-3xx\_fr

**Declaration of conformity** (de) 581 kB, 07.06.2018

Code: KAS\_konfi\_nsr\_zt2xx-3xx\_de

**Declaration of conformity** (en) 579 kB, 07.06.2018

Code: KAS\_konfi\_nsr\_zt2xx-3xx\_en

**Declaration of conformity** (nl) 89 kB, 18.06.2018

Code: KAS\_konfi\_nsr\_zt2xx-3xx\_nl

**CCC certification** (cn) 4 MB, 11.04.2018

Code: q\_235p02

**CCC certification** (en) 4 MB, 27.10.2017

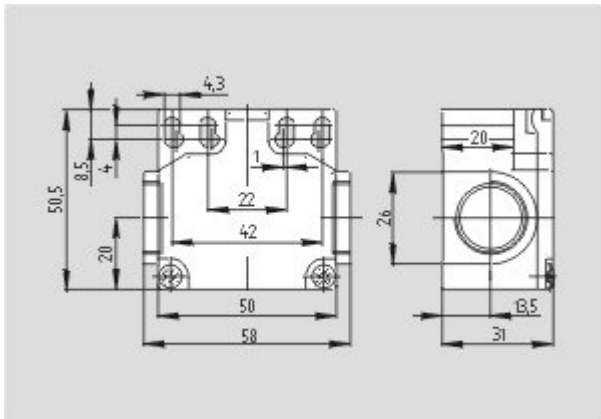
Code: q\_235p01

**EAC certification** (ru) 844 kB, 05.10.2015

Code: q\_6037p17\_ru

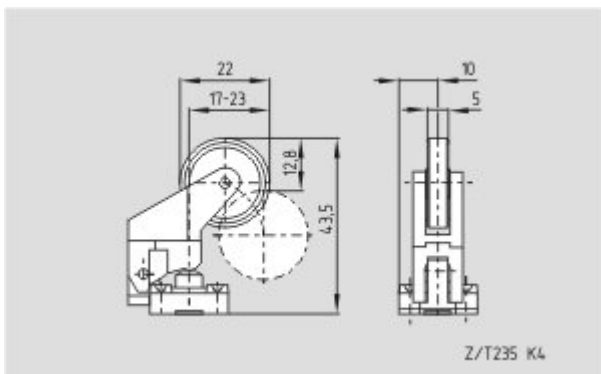
## Images

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Dimensional drawing (basic component)

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Dimensional drawing (actuator)

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

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