

Datasheet - TV14H 255-02zh

Position switch / Metal enclosure 255 - EN 50047 with Actuator / 255 Roller lever 14H



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

- Metal enclosure
- Wide range of alternative actuators
- Good resistance to oil and petroleum spirit
- 63 mm x 63,5 mm x 30 mm
- 3 cable entries M 20 x 1.5
- Actuator heads can be repositioned by 4 x 90°
- Mounting details to EN 50047
- Lever angle adjustable in 10° steps

Ordering details

| | |
|--------------------------|----------------|
| Product type description | TV14H 255-02ZH |
| Article number | 101174976 |
| EAN Code | 4030661338064 |
| 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 255 Rollenschwenkhebel 14H |
| 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 | Zink |
| - Lever material | Metal film |
| - Roller material | Plastic |
| - Material of the contacts | Silver |
| Housing coating | painted |
| Housing construction form | Norm construction design |


Mechanical data

| | |
|---|---|
| Design of actuating element | Roller lever |
| 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. |
| actuating torque | min. 15 Ncm |
| Bounce duration | in accordance with actuating speed |
| Switchover time | in accordance with actuating speed |
| Positive break torque | 18.5 Ncm |
| Actuating speed with actuating angle 30° to switch axis | |
| - Min. Actuating speed | 4122 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

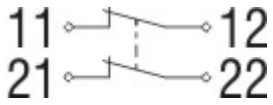
| | |
|---|--|
| Design of control element | Opener (NC) |
| Switching principle | Slow action with staggered contacts |
| positive break NC contact  | |
| Number of auxiliary contacts | 0 |
| Number of safety contacts | 2 |
| Rated impulse withstand voltage U_{imp} | 6 kV |
| Rated insulation voltage U_i | 500 V |
| Thermal test current I_{the} | 10 A |
| Utilisation category | AC-15: 230 V / 4 A, 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 63 mm
- Height of sensor 114 mm
- Length of sensor 46 mm

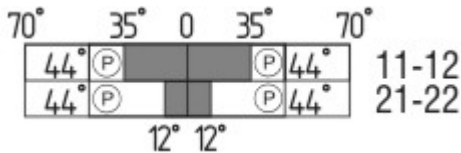
Diagram



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

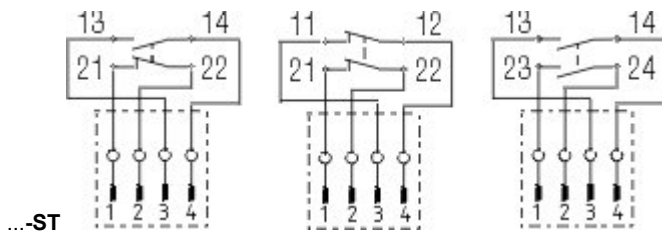
Ordering suffix

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

Order example: TV14H 255-02zh-1637

...-1637

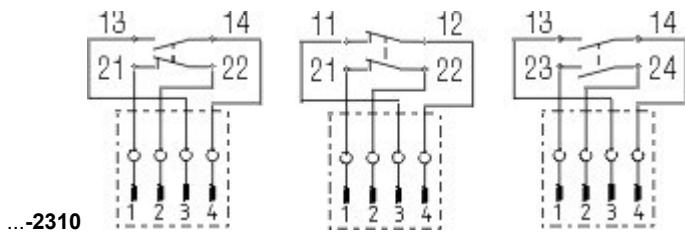
0,3 µm gold-plated contacts



...-ST

M12 connector with A-coding
 Rated impulse withstand voltage U_{imp} : 0,8 kV
 Rated insulation voltage U_i : 50 V
 Operating current I_e : AC-15: 50 V / 4 A
 Caution! The versions with connector may only be used in PELV circuits to EN 60204-1.

M12 connector with B-coding
 Rated impulse withstand voltage U_{imp} : 0,8 kV
 Rated insulation voltage U_i : 50 V
 Operating current I_e : AC-15: 50 V / 4 A



| | |
|----------|---|
| ...-2310 | Caution! The versions with connector may only be used in PELV circuits to EN 60204-1. |
| ...-NPT | Cable entry NPT 1/2" |
| ...-1297 | Enclosure with transverse slotted holes |
| ...-Z | Actuator head gasket |
| ...-RMS | Available with metal roller |

Ordering code

(1)(2) 2(3)5-(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 (<i>Caution! The versions with connector may only be used in PELV circuits to EN 60204-1.</i>) |
| ST-2310 | M12 connector with B-coding (<i>Caution! The versions with connector may only be used in PELV circuits to EN 60204-1.</i>) |
| (7) | |
| 2574 | |
| (8) | |
| 2138 | Roller lever 7H for Position switches with safety function |
| (9) | |
| 1637 | gold-plated contacts |

Documents

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

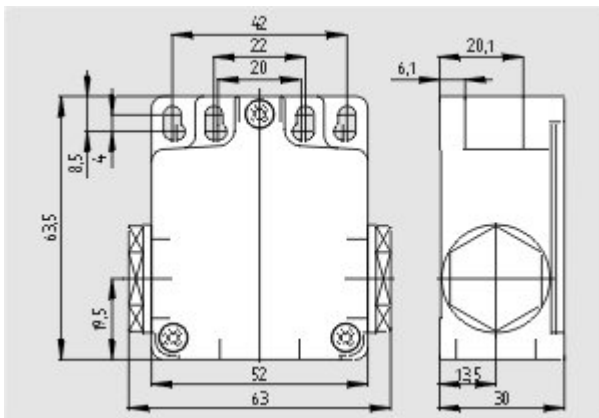
CCC certification (en) 4 MB, 27.10.2017

Code: q_235p01

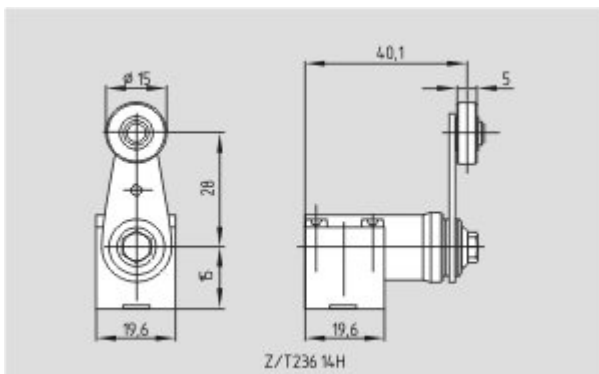
EAC certification (ru) 844 kB, 05.10.2015

Code: q_6037p17_ru

Images



Dimensional drawing (basic component)



Dimensional drawing (actuator)

K.A. Schmersal GmbH & Co. KG, Möddinghofs 30, D-42279 Wuppertal

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

Generiert am 13.02.2019 - 13:46:45h Kasbase 3.3.0.F.64I