

Datasheet - TV7H 236-11z



Position switch / 236 thermoplastic enclosure - DIN EN 50047 with Actuator / 236 Roller lever 7H



- thermoplastic enclosure
- Good resistance to oil and petroleum spirit
- Wide range of alternative actuators
- 30 mm x 58,5 mm x 30 mm
- 1 Cable entry M 20 x 1.5
- Double-insulated
- Mounting details to EN 50047
- **only for positioning tasks**
- Lever angle adjustable in 10° steps
- Actuator heads can be repositioned by 4 x 90°

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

Ordering details

| | |
|--------------------------|---------------|
| Product type description | TV7H 236-11z |
| Article number | 1168168 |
| EAN code | 4030661221144 |

Approval


| | |
|----------|--|
| Approval |  USA/CAN  CCC |
|----------|--|

Classification

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

Global Properties

| | |
|--------------|-----------------------------|
| Product name | T 236 Rollenschwenkhebel 7H |
| Standards | EN 60947-5-1 BG-GS-ET-15 |

| | |
|---|---|
| Compliance with the Directives (Y/N)  | Yes |
| Suitable for safety functions (Y/N) | No |
| Materials | |
| - Material of the housings | Plastic, glass-fibre reinforced thermoplastic, self-extinguishing |
| - Lever material | Metal film |
| - Roller material | Plastic |
| - Material of the contacts | Silver |
| Housing coating | None |
| Housing construction form | Norm construction design |
| Weight | 95 g |


Mechanical data

| | |
|---|---|
| Design of actuating element | Roller lever |
| Design of electrical connection | Screw connection |
| Cable section | |
| - Min. Cable section | 1.5 mm ² |
| - Max. Cable section | 2.5 mm ² |
| Mechanical life | 20.000.000 operations |
| Switching frequency | max. 5000/h |
| actuating torque | min. 15 Ncm |
| Bounce duration | in accordance with actuating speed |
| Switchover time | in accordance with actuating speed |
| Actuating speed with actuating angle 30° to switch axis | |
| - Min. Actuating speed | 1440 mm/min |
| - Max. Actuating speed | 1 m/s |
| notice | All indications about the cable section are including the conductor ferrules. |

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 | Creep circuit element |
| - positive break NC contact  | |
| Number of auxiliary contacts | 1 piece |
| Number of safety contacts | 1 piece |
| 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 |
| Max. fuse rating | 6 A gG D-fuse |

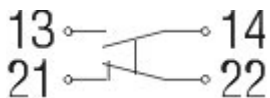
Dimensions

| | |
|--------------------------|----------|
| Dimensions of the sensor | |
| - Width of sensor | 30 mm |
| - Height of sensor | 158.5 mm |

- Length of sensor

49 mm

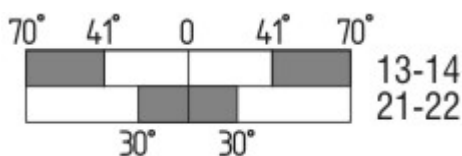
Diagram



Note Diagram

- positive break NC contact
- active
- no active
- Normally-open contact
- Normally-closed contact

Switch travel diagram



Notes Switch travel diagram

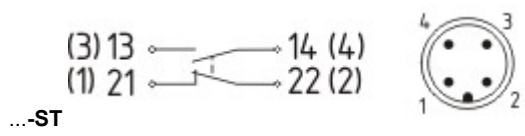
- Contact closed
- Contact open
- Setting range
- Break point
- Positive opening sequence/- angle
- VS** adjustable range of NO contact
- VÖ** adjustable range of NC contact
- N** after travel

Ordering suffix

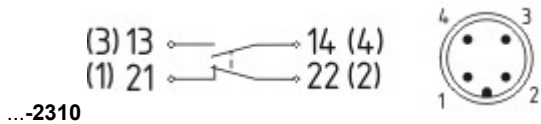
The applicable ordering suffix is added at the end of the part number of the safety switch.

Order example: TV7H 236-11z-1637

| | |
|----------|---|
| ...-1637 | 0,3 µm gold-plated contacts |
| ...- ID | IDC method of termination |
| ...-NPT | Cable entry NPT 1/2" |
| ...-1297 | Enclosure with transverse slotted holes |
| ...-Z | Actuator head gasket |



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
 Caution! The versions with connector may only be used in PELV circuits to EN 60204-1.

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

(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

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

Operating instructions and Declaration of conformity (pt) 395 kB, 15.04.2010
http://127.0.0.1/Bilddata/Si_f1/Pdf/Zt235/bedien/zt235/PT/mrl_ZT235_236_pt.pdf

Operating instructions and Declaration of conformity (jp) 1 MB, 17.11.2010
http://127.0.0.1/Bilddata/Si_f1/Pdf/Zt235/bedien/zt235/JP/mrl_ZT235_236_jp.pdf

Operating instructions and Declaration of conformity (nl) 383 kB, 27.11.2009
http://127.0.0.1/Bilddata/Si_f1/Pdf/Zt235/bedien/zt235/NL/mrl_ZT235_236_nl.pdf

Operating instructions and Declaration of conformity (de) 644 kB, 06.04.2010
http://127.0.0.1/Bilddata/Si_f1/Pdf/Zt235/bedien/zt235/DE/mrl_ZT235_236_de.pdf

Operating instructions and Declaration of conformity (en) 535 kB, 01.03.2010
http://127.0.0.1/Bilddata/Si_f1/Pdf/Zt235/bedien/zt235/EN/mrl_ZT235_236_en.pdf

Operating instructions and Declaration of conformity (es) 392 kB, 15.04.2010
http://127.0.0.1/Bilddata/Si_f1/Pdf/Zt235/bedien/zt235/ES/mrl_ZT235_236_es.pdf

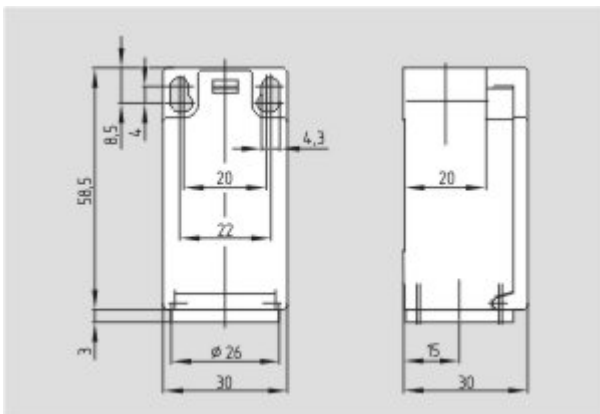
Operating instructions and Declaration of conformity (fr) 400 kB, 15.04.2010
http://127.0.0.1/Bilddata/Si_f1/Pdf/Zt235/bedien/zt235/FR/mrl_ZT235_236_fr.pdf

Operating instructions and Declaration of conformity (it) 377 kB, 15.04.2010
http://127.0.0.1/Bilddata/Si_f1/Pdf/Zt235/bedien/zt235/IT/mrl_ZT235_236_it.pdf

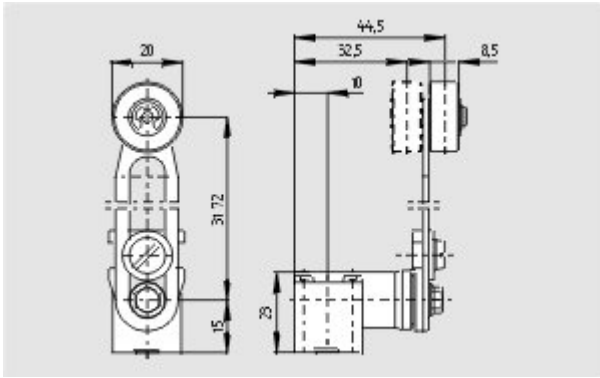
CCC certification (cn) 605 kB, 12.12.2006
http://127.0.0.1/Bilddata/Si_f1/Pdf/Zt235/zertifikat/q_347p03.pdf

CCC certification (en) 584 kB, 12.12.2006
http://127.0.0.1/Bilddata/Si_f1/Pdf/Zt235/zertifikat/q_347p02.pdf

Images



Dimensional drawing (basic component)



Dimensional drawing (actuator)

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