

Datasheet - TV1H 236-11z

Position switch / 236 thermoplastic enclosure - DIN EN 50047
with Actuator / 236 Roller lever 1H



- thermoplastic enclosure
- Good resistance to oil and petroleum spirit
- Wide range of alternative actuators
- 30 mm x 58,5 mm x 30 mm
- Lever angle adjustable in 10° steps
- 1 Cable entry M 20 x 1.5
- Double-insulated
- Mounting details to EN 50047
- 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	TV1H 236-11Z
Article number	1160988
EAN code	4030661191829

Approval

Approval



Classification

Standards

EN ISO 13849-1

B_{10d} Normally-closed contact (NC)

20.000.000

Mission time

20 Years

notice

$$MTTF_d = \frac{B_{10d}}{0,1 \times n_{op}}$$

$$n_{op} = \frac{d_{op} \times h_{op} \times 3600 \text{ s/h}}{t_{zyklus}}$$

Global Properties

Product name

T 236 Rollenschwenkhebel 1 H

Standards

EN 60947-5-1 BG-GS-ET-15

Compliance with the Directives (Y/N) 

Yes

Suitable for safety functions (Y/N)

Yes

Actuator type

A to EN 50047

Materials

- Material of the housings

Plastic, glass-fibre reinforced thermoplastic, self-extinguishing

- Lever material

Plastic

- Roller material

Plastic

- Material of the contacts

Silver

Housing coating

None

Housing construction form

Norm construction design

Weight

70 g

Mechanical data

Design of actuating element

Roller lever

Design of electrical connection

Screw connection

Cable section

- Min. Cable section

1.5 mm²

- Max. Cable section

2.5 mm²

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

Positive break torque

18.5 Ncm

Actuating speed with actuating angle 30° to switch axis

- Min. Actuating speed

492 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

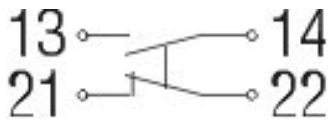
Design of control element	Normally open contact (NO), Opener (NC)
Switching principle	Creep circuit element
- positive break NC contact 	
Number of auxiliary contacts	1 piece
Number of safety contacts	1 piece
Rated impulse withstand voltage U_{imp}	6 kV
Rated insulation voltage U_i	500 V
Thermal test 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	109 mm
- Length of sensor	42.5 mm


Diagram

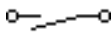


Note Diagram

 positive break NC contact

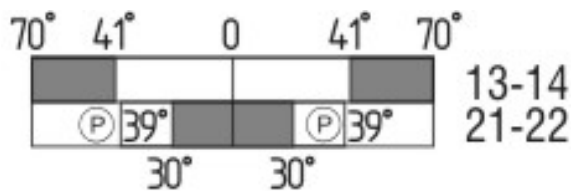
 active

 no active

 Normally-open contact

 Normally-closed contact

Switch travel diagram



Notes Switch travel diagram

- Contact closed
- Contact open
- Setting range
- L Break point
- P 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: TV1H 236-11z-**Z**

...-Z	Actuator head gasket
...-1637	0,3 µm gold-plated contacts
...- ID	IDC method of termination
...-NPT	Cable entry NPT 1/2"
...-ST	<div style="text-align: center;"> </div> M12 connector with A-coding
...- 2310	<div style="text-align: center;"> </div> M12 connector with B-coding
...-1297	Enclosure with transverse slotted holes

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://www.schmersal.net/Bilddata/Si_f1/Pdf/Zt235/bedien/PT/mrl_ZT235_236_pt.pdf

Operating instructions and Declaration of conformity (jp) 564 kB, 15.04.2010

http://www.schmersal.net/Bilddata/Si_f1/Pdf/Zt235/bedien/JP/mrl_ZT235_236_jp.pdf

Operating instructions and Declaration of conformity (en) 535 kB, 01.03.2010

http://www.schmersal.net/Bilddata/Si_f1/Pdf/Zt235/bedien/EN/mrl_ZT235_236_en.pdf

Operating instructions and Declaration of conformity (nl) 383 kB, 27.11.2009

http://www.schmersal.net/Bilddata/Si_f1/Pdf/Zt235/bedien/NL/mrl_ZT235_236_nl.pdf

Operating instructions and Declaration of conformity (de) 644 kB, 06.04.2010

http://www.schmersal.net/Bilddata/Si_f1/Pdf/Zt235/bedien/DE/mrl_ZT235_236_de.pdf

Operating instructions and Declaration of conformity (es) 392 kB, 15.04.2010

http://www.schmersal.net/Bilddata/Si_f1/Pdf/Zt235/bedien/ES/mrl_ZT235_236_es.pdf

Operating instructions and Declaration of conformity (fr) 400 kB, 15.04.2010

http://www.schmersal.net/Bilddata/Si_f1/Pdf/Zt235/bedien/FR/mrl_ZT235_236_fr.pdf

Operating instructions and Declaration of conformity (it) 377 kB, 15.04.2010

http://www.schmersal.net/Bilddata/Si_f1/Pdf/Zt235/bedien/IT/mrl_ZT235_236_it.pdf

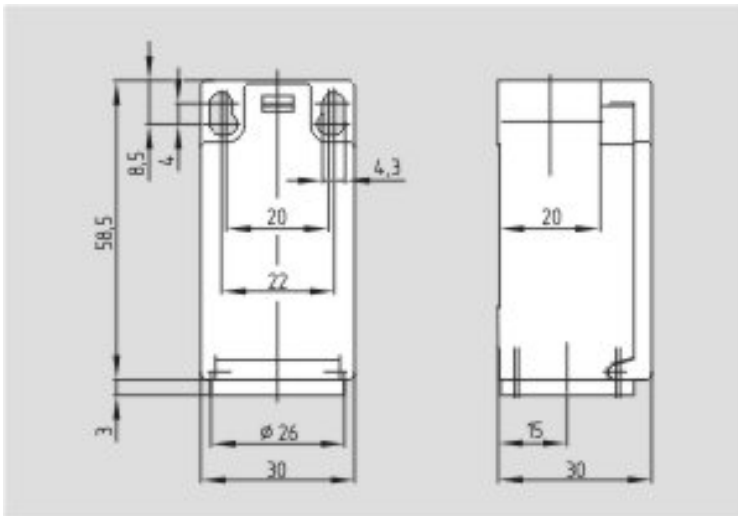
CCC certification (en) 584 kB, 12.12.2006

http://www.schmersal.net/Bilddata/Si_f1/Pdf/Zt235/zertifikat/q_347p02.pdf

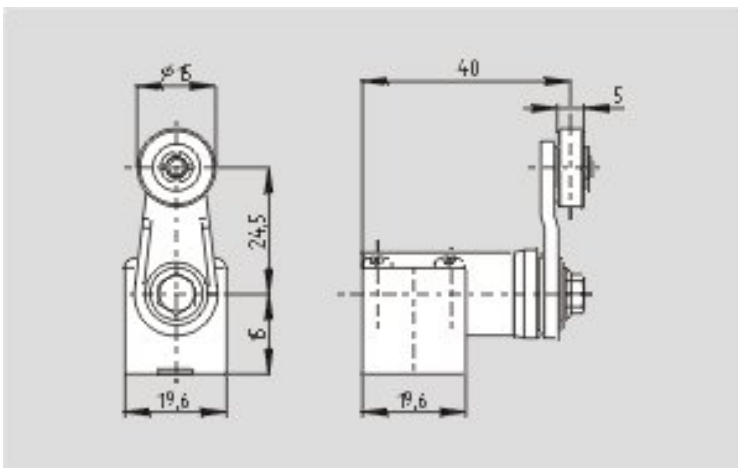
CCC certification (cn) 605 kB, 12.12.2006

http://www.schmersal.net/Bilddata/Si_f1/Pdf/Zt235/zertifikat/q_347p03.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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