

Datasheet - TV12H 236-11z



Position switch / 236 thermoplastic enclosure - DIN EN 50047 with Actuator / 236 Roller lever
12H

Preferred typ



- 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
- Actuator heads can be repositioned by 4 x 90°
- Lever angle adjustable in 10° steps

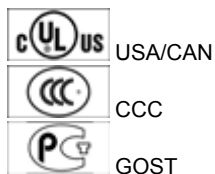
(Minor differences between the printed image and the original product may exist!)

Ordering details

Product type description	TV12H 236-11Z
Article number	101158549
EAN code	4030661182728

Approval


Approval



Classification

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

Global Properties

Product name	T 236 Rollenschwenkhebel 12H
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
Actuator type	A to EN 50047
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	70 g


Mechanical data

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
Design of actuating element	Roller lever
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
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

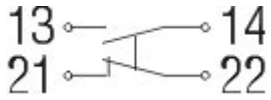
Design of control element	Normally open contact (NO), Opener (NC)
Switching principle	Creep circuit element
- positive break NC contact 	
Number of auxiliary contacts	1 piece
Number of safety contacts	1 piece
Rated impulse withstand voltage U _{imp}	6 kV
Rated insulation voltage U _i	500 V
Thermal test current I _{the}	10 A
Utilisation category	AC-15: 230 V / 4 A, DC-13: 24 V / 1 A
Required rated short-circuit current	1000 A
Max. fuse rating	6 A gG D-fuse

Dimensions

Dimensions of the sensor

- Width of sensor	30 mm
- Height of sensor	108.5 mm
- Length of sensor	46 mm

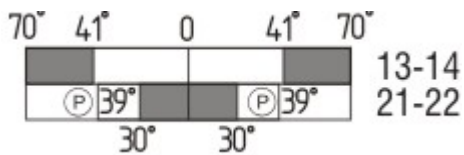
Diagram



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.

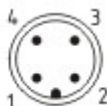
Order example: TV12H 236-11z-**1637**

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

...-RMS

Available with metal roller

...-ST



M12 connector with A-coding

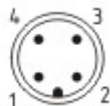
Rated impulse withstand voltage U_{imp} : 0,8 kV

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.

...-2310



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

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
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 (da) 304 kB, 21.08.2013

Code: mrl_ZT235_236_da

Operating instructions and Declaration of conformity (de) 305 kB, 06.03.2014

Code: mrl_ZT235_236_de

Operating instructions and Declaration of conformity (en) 338 kB, 06.03.2014

Code: mrl_ZT235_236_en

Operating instructions and Declaration of conformity (pt) 308 kB, 21.08.2013

Code: mrl_ZT235_236_pt

Operating instructions and Declaration of conformity (es) 303 kB, 02.01.2013

Code: mrl_ZT235_236_es

Operating instructions and Declaration of conformity (it) 329 kB, 17.01.2013

Code: mrl_ZT235_236_it

Operating instructions and Declaration of conformity (fr) 306 kB, 30.04.2013

Code: mrl_ZT235_236_fr

Operating instructions and Declaration of conformity (jp) 410 kB, 14.01.2013

Code: mrl_ZT235_236_jp

Operating instructions and Declaration of conformity (nl) 296 kB, 12.04.2013

Code: mrl_ZT235_236_nl

CCC certification (cn) 324 kB, 03.02.2014

Code: q_235p02

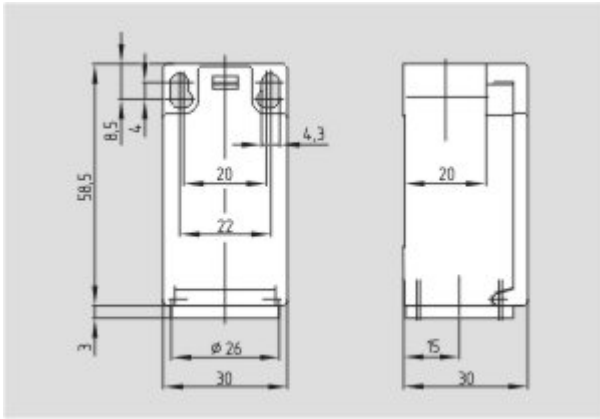
CCC certification (en) 352 kB, 03.02.2014

Code: q_235p01

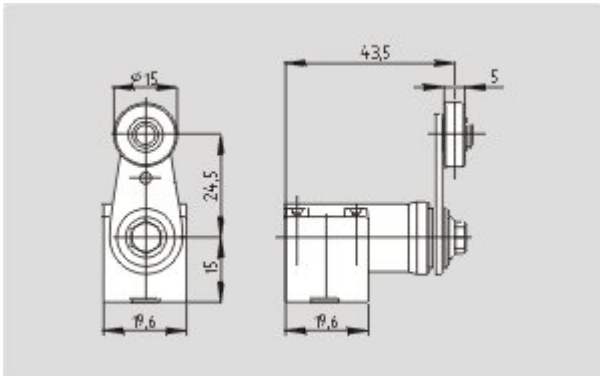
Gost certification (ru) 2 MB, 07.07.2011

Code: q_az1p01

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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Image

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