

## Datasheet - TVH 336-01/01z



Position switch / 336 thermoplastic enclosure - DIN EN 50041 with Actuator / 336 Roller lever  
H

Preferred typ



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

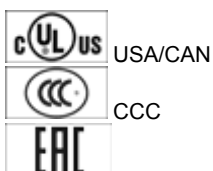
- Design to EN 50041
- Lever angle adjustable in 10° steps
- Thermoplastic enclosure
- Double-insulated
- Good resistance to oil and petroleum spirit
- Wide range of alternative actuators
- Actuator heads can be repositioned by 4 x 90°
- 1 Cable entry M 20 x 1.5

### Ordering details

Product type description	TVH 336-01/01Z
Article number	101158411
EAN code	4030661182292
eCl@ss	27-27-26-01

### Approval


Approval



### Classification

Standards	EN ISO 13849-1
B <sub>10d</sub> 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	336 Rollenschwenkhebel 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 50041
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	165 g


### Mechanical data

Design of electrical connection	Screw connection
Cable section	
- Min. Cable section	0,75 mm <sup>2</sup>
- Max. Cable section	2.5 mm <sup>2</sup>
Mechanical life	30.000.000 operations
Switching frequency	max. 5000 /h
notice	All indications about the cable section are including the conductor ferrules.
Design of actuating element	Roller lever
actuating torque	min. 31 Ncm
Bounce duration	< 2 ms
Switchover time	in accordance with actuating speed
Actuating speed with actuating angle 30° to switch axis	
- Min. Actuating speed	
- Max. Actuating speed	2.5 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	Creep circuit element
- positive break NC contact 	
Number of auxiliary contacts	0 piece
Number of safety contacts	2 piece
1 Normally-closed contact left	
1 Normally-closed contact right	
Rated impulse withstand voltage U <sub>imp</sub>	6 kV
Rated insulation voltage U <sub>i</sub>	500 V
Thermal test current I <sub>the</sub>	10 A
Utilisation category	AC-15: 230 V / 4 A, DC-13: 24 V / 4 A
Required rated short-circuit current	1000 A

Max. fuse rating

6 A gG D-fuse

## Dimensions

Dimensions of the sensor

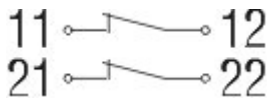
- Width of sensor	40.5 mm
- Height of sensor	129.5 mm
- Length of sensor	60.5 mm

## notice

On version TVH 336-01/01z positive break only to one side.

The positioning of the head must be carried out in factory.

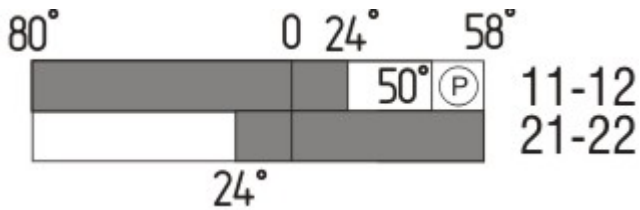
## Diagram



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.

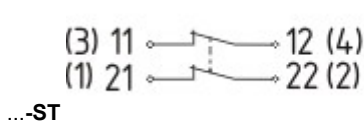
Order example: TVH 336-01/01z-**NPT**

...-**NPT**

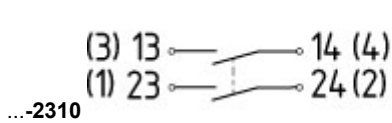
Cable entry NPT 1/2"

...-**1637**

0,3 µm gold-plated contacts



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) 336-(3)Z(4)-(5)-(6)-(7)

(1)

Z

T

(2)

S

R

H

10H

7H

1K

3K

(3)

11

02

20

01/01

(4)

H

UE

(5)

without

NPT

ST

ST-2310

(6)

2138

(7)

1637

Snap action

Slow action

Plunger S

Roller plunger R

Roller lever H

Rod lever 10H

Roller lever 7H

Offset roller lever 1K

Angle roller lever 3K

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

2 Opener (NC)

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

1 Opener (NC) left / 1 Opener (NC) right

Slow action with staggered contacts

Slow action with overlapping contacts

Cable entry M20

cable entry NPT 1/2"

M12 connector with A-coding

M12 connector with B-coding

Roller lever 7H for Position switches with safety function

gold-plated contacts

## Documents

Operating instructions and Declaration of conformity (de) 318 kB, 18.03.2016

Code: mrl\_zt332-335-336-355\_de

**Operating instructions and Declaration of conformity (it)** 308 kB, 04.04.2013

Code: mrl\_zt332-335-336-355\_it

**Operating instructions and Declaration of conformity (fr)** 325 kB, 04.04.2013

Code: mrl\_zt332-335-336-355\_fr

**Operating instructions and Declaration of conformity (nl)** 321 kB, 04.04.2013

Code: mrl\_zt332-335-336-355\_nl

**Operating instructions and Declaration of conformity (jp)** 1 MB, 22.11.2010

Code: mrl\_zt332-335-336-355\_jp

**Operating instructions and Declaration of conformity (cs)** 371 kB, 07.10.2014

Code: mrl\_zt332-335-336-355\_cs

**Operating instructions and Declaration of conformity (pt)** 327 kB, 04.04.2013

Code: mrl\_zt332-335-336-355\_pt

**Operating instructions and Declaration of conformity (es)** 323 kB, 04.04.2013

Code: mrl\_zt332-335-336-355\_es

**Operating instructions and Declaration of conformity (da)** 323 kB, 04.04.2013

Code: mrl\_zt332-335-336-355\_da

**Operating instructions and Declaration of conformity (en)** 352 kB, 18.03.2016

Code: mrl\_zt332-335-336-355\_en

**Operating instructions and Declaration of conformity (pl)** 372 kB, 06.02.2015

Code: mrl\_zt332-335-336-355\_pl

**CCC certification (en)** 187 kB, 03.08.2015

Code: q\_347p02

**CCC certification (cn)** 166 kB, 03.08.2015

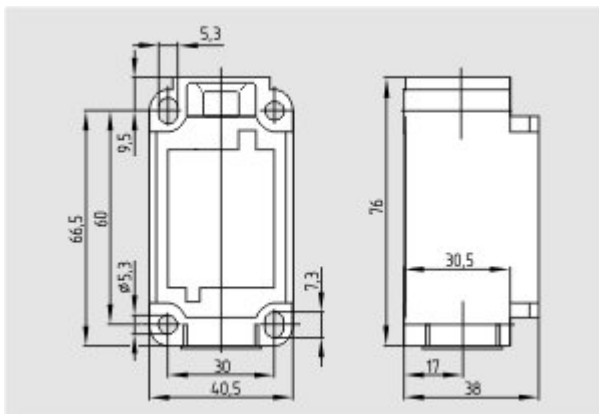
Code: q\_347p03

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

Code: q\_6037p17\_ru

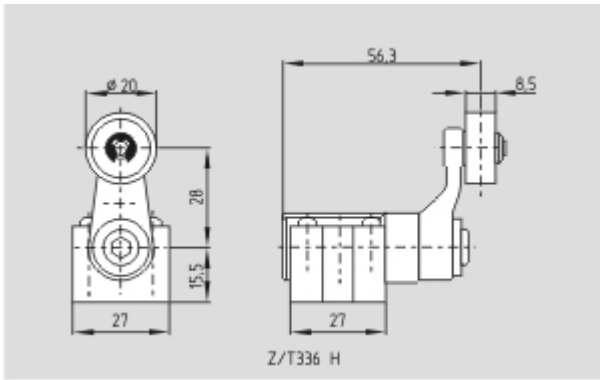
## Images

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Dimensional drawing (basic component)

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Dimensional drawing (actuator)

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K.A. Schmersal GmbH & Co. KG, Möddinghofe 30, D-42279 Wuppertal  
The data and values have been checked thoroughly. Technical modifications and errors excepted.  
Generiert am 19.07.2016 - 22:48:59h Kasbase 3.2.4.F.64I