


## Datasheet - TS 336-02z

Position switch / 336 Thermoplastic enclosure - EN 50041 with Actuator / 336 Plunger S



- Design to EN 50041
- 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

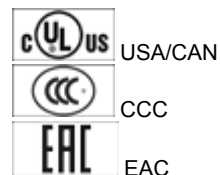
(Minor differences between the printed image and the original product may exist!)

### Ordering details

Product type description	TS 336-02Z
Article number	101165264
EAN Code	4030661208572
eCl@ss	27-27-26-01

### Approval


Approval



### Classification

Standards	EN 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	336 Druckbolzen S
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	B to EN 50041
Materials	
- Material of the housings	Plastic, glass-fibre reinforced thermoplastic, self-extinguishing
- Material of the contacts	Silver
Housing coating	None
Housing construction form	Norm construction design
Weight	100

## Mechanical data

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Design of electrical connection	Screw connection
Cable section	
- Min. Cable section	0,75
- Max. Cable section	2.5
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	Plunger
Actuating force	min. 17 N
Bounce duration	< 2
Switchover time	in accordance with actuating speed
Actuating speed for vertical actuation	
- Min. Actuating speed	
- Max. Actuating speed	0,5 m/s


## Ambient conditions

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Ambient temperature	
- Min. environmental temperature	-30 °C
- Max. environmental temperature	+80 °C
Protection class	IP67

## Electrical data

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Design of control element	Opener (NC)
Switching principle	Creep circuit element
- 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 / 4 A
Required rated short-circuit current	1000 A
Max. fuse rating	6 A gG D-fuse

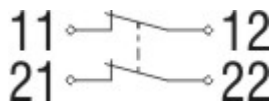
## Dimensions

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Dimensions of the sensor

- Width of sensor	40.5 mm
- Height of sensor	103.5 mm
- Length of sensor	38 mm

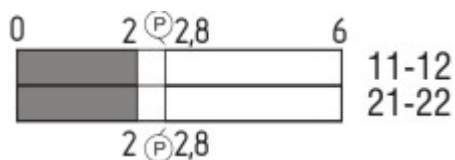
## Diagram



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: TS 336-02z-NPT

....NPT	Cable entry NPT 1/2"
....1637	0,3 µm gold-plated contacts
....ST	<p>M12 connector with A-coding  Rated impulse withstand voltage <math>U_{imp}</math>: 0,8 kV  Rated insulation voltage <math>U_i</math>: 50 V  Operating current <math>I_e</math>: AC-15: 50 V / 4 A  Caution! The versions with connector may only be used in PELV circuits to EN 60204-1.</p>
....2310	<p>M12 connector with B-coding  Rated impulse withstand voltage <math>U_{imp}</math>: 0,8 kV  Rated insulation voltage <math>U_i</math>: 50 V  Operating current <math>I_e</math>: AC-15 50 V / 4 A  Caution! The versions with connector may only be used in PELV circuits to EN 60204-1.</p>

## Ordering code

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(1)(2) 336-(3)Z(4)-(5)-(6)-(7)

(1)

Z Snap action  
T Slow action

(2)

S Plunger S  
R Roller plunger R  
H Roller lever H  
10H Rod lever 10H  
7H Roller lever 7H  
1K Offset roller lever 1K  
3K Angle roller lever 3K

(3)

11 1 Normally open contact (NO) / 1 Opener (NC)  
02 2 Opener (NC)  
20 2 Normally open contact (NO), (*Switch with 2 NO contacts are not for security tasks*)  
01/01 1 Opener (NC) left / 1 Opener (NC) right

(4)

H Slow action with staggered contacts  
UE Slow action with overlapping contacts

(5)

*without* Cable entry M20  
NPT cable entry NPT 1/2"  
ST M12 connector with A-coding  
ST-2310 M12 connector with B-coding

(6)

2138 Roller lever 7H for Position switches with safety function

(7)

1637 gold-plated contacts

## Documents

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**Operating instructions and Declaration of conformity (de)** 157 kB, 18.06.2018

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

**Operating instructions and Declaration of conformity (nl)** 162 kB, 27.06.2018

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

**Operating instructions and Declaration of conformity (it)** 162 kB, 27.06.2018

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

**Operating instructions and Declaration of conformity (pt)** 163 kB, 27.06.2018

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

**Operating instructions and Declaration of conformity (pl)** 198 kB, 27.06.2018

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

**Operating instructions and Declaration of conformity (en)** 160 kB, 18.06.2018

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

**Operating instructions and Declaration of conformity (fr)** 164 kB, 27.06.2018

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

**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 (en)** 187 kB, 03.08.2015

Code: q\_347p02

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

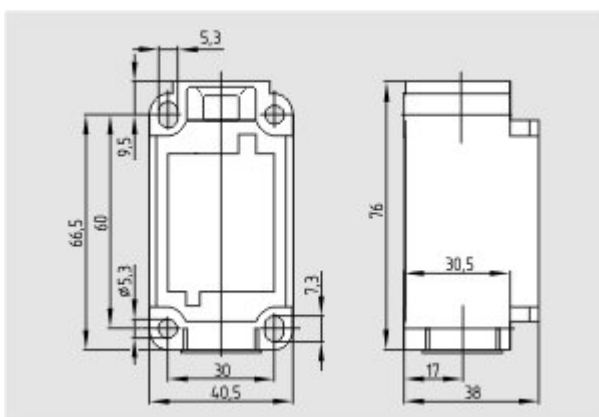
Code: q\_347p03

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

Code: q\_6037p17\_ru

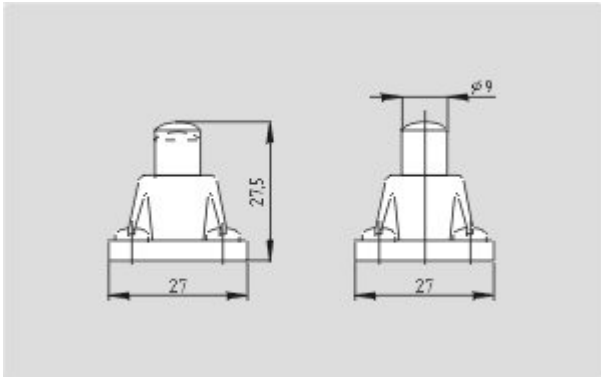
## Images

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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.  
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