

## Datasheet - Z1K 336-11z



Position switch / 336 thermoplastic enclosure - DIN EN 50041 with Actuator / 336 Offset roller lever 1K

Preferred typ



- 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°
- Snap action with constant contact pressure up to switching point
- 1 Cable entry M 20 x 1.5

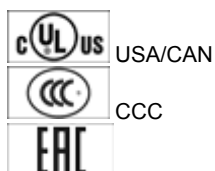
(Minor differences between the printed image and the original product may exist!)

### Ordering details

Product type description	Z1K 336-11Z
Article number	101159516
EAN code	4030661186603
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
B <sub>10d</sub> Normally open contact (NO)	1 million operations
Mission time TM	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

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Product name	336 Rollenhebel 1K
Standards	EN 60947-5-1, BG-GS-ET-15
Compliance with the Directives (Y/N) 	Yes
Suitable for safety functions (Y/N)	Yes
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	125 g

## Mechanical data

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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	Offset roller lever
Actuating force	min. 12 N
Bounce duration	in accordance with actuating speed
Switchover time	< 2 ms
Actuating speed with actuating angle 30° to switch axis	
- 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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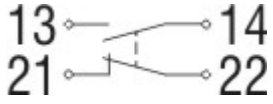
Design of control element	Normally open contact (NO), Opener (NC)
Switching principle	Snap switch element
- positive break NC contact 	
Number of auxiliary contacts	1 piece
Number of safety contacts	1 piece
Rated impulse withstand voltage U <sub>imp</sub>	6 kV
Rated insulation voltage U <sub>i</sub>	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 118.5 mm
- Length of sensor 38 mm

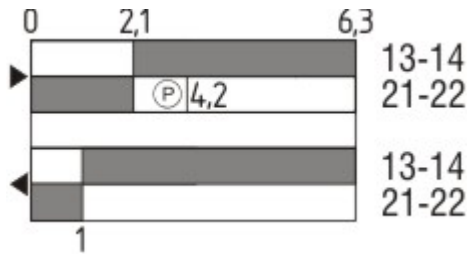
Diagram



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: Z1K 336-11z-NPT

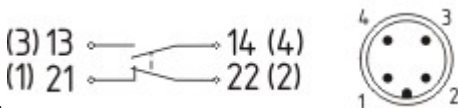
...-NPT

Cable entry NPT 1/2"

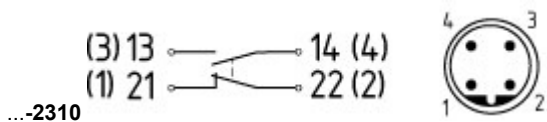
...-1637

0,3 µm gold-plated contacts

...-ST



M12 connector with A-coding  
 Rated impulse withstand voltage  $U_{imp}$ : 4 kV  
 Rated insulation voltage  $U_i$ : 250 V  
 Rated operating voltage  $U_e$ : 230 V  
 Operating current  $I_e$ : 4 A



M12 connector with B-coding  
 Rated impulse withstand voltage  $U_{imp}$ : 4 kV  
 Rated insulation voltage  $U_i$ : 250 V  
 Rated operating voltage  $U_e$ : 230 V  
 Operating current  $I_e$ : 4 A

## Ordering code

(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

**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

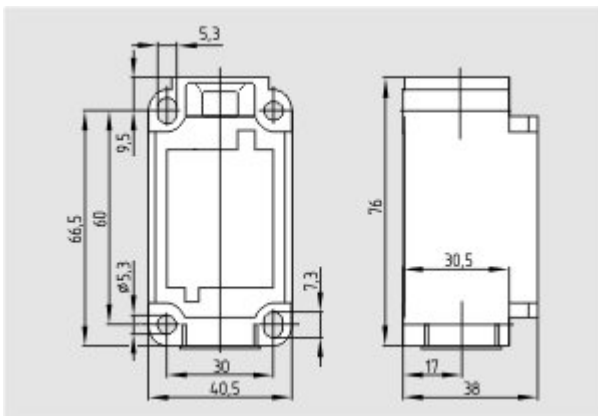
Code: q\_347p03

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

Code: q\_6037p17\_ru

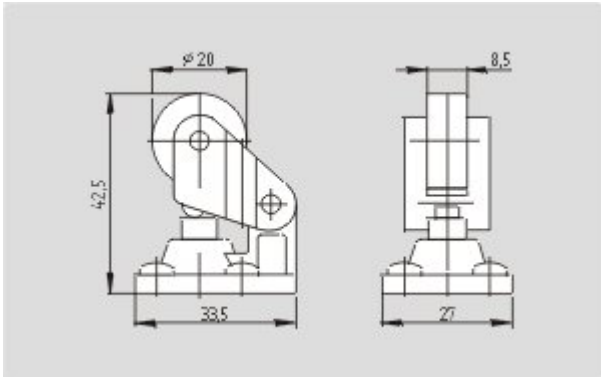
## Images

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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 - 22:59:26h Kasbase 3.2.4.F.64I