

## Datasheet - ZR 336-02z



Position switch / 336 thermoplastic enclosure - DIN EN 50041 with Actuator / 336 Roller plunger R



- Snap action with constant contact pressure up to switching point
- thermoplastic enclosure
- Double-insulated
- Good resistance to oil and petroleum spirit
- 40,5 mm x 76 mm x 38 mm
- Wide range of alternative actuators
- Actuator heads can be repositioned by 4 x 90°
- 1 Cable entry M 20 x 1.5
- Design to EN 50041

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

### Ordering details

Product type description	ZR 336-02Z
Article number	101154789
EAN code	4030661174396

### Approval

Approval




### Classification

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

### Global Properties

Product name	336 Rollendruckbolzen R
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	C 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	116 g

## Mechanical data

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Design of actuating element	Roller plunger
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
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
notice	All indications about the cable section are including the conductor ferrules.


## 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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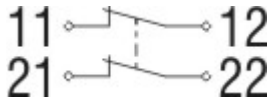
Design of control element	Opener (NC)
Switching principle	Snap switch element
- positive break NC contact 	
Number of auxiliary contacts	0 piece
Number of safety contacts	2 piece
Rated impulse withstand voltage $U_{imp}$	6 kV
Rated insulation voltage $U_i$	500 V
Thermal test current $I_{the}$	10 A
Utilisation category	AC-15: 230 V / 4 A, DC-13: 24 V / 1 A
Max. fuse rating	6 A gG D-fuse

## Dimensions






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Dimensions of the sensor	
- Width of sensor	40.5 mm
- Height of sensor	116.5 mm
- Length of sensor	38 mm

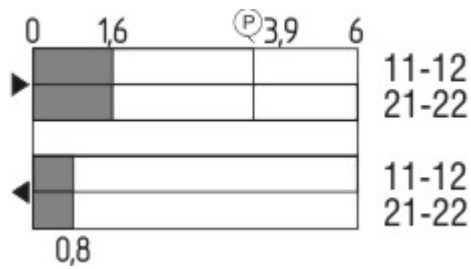
## Diagram








Note Diagram

-  positive break NC contact
-  active
-  no active
-  Normally-open contact
-  Normally-closed contact

## Switch travel diagram



Notes Switch travel diagram

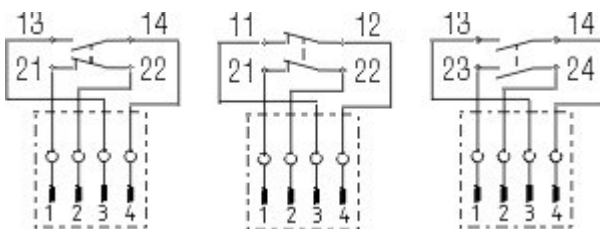
-  Contact closed
-  Contact open
-  Setting range
-  Break point
-  Positive opening sequence/- angle
- VS** adjustable range of NO contact
- VÖ** adjustable range of NC contact
- N** after travel

## Ordering suffix

The applicable ordering suffix is added at the end of the part number of the safety switch.  
Order example: ZR 336-02z-**NPT**

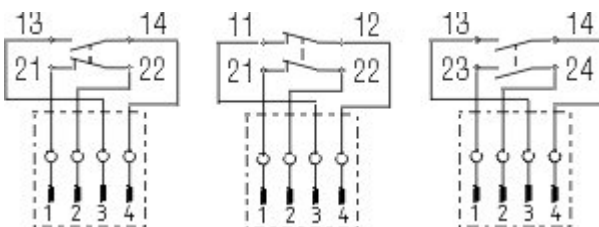
...-**NPT**

Cable entry NPT 1/2"



...-**ST**

M12 connector with A-coding



...-**2310**

M12 connector with B-coding

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**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**2310** M12 connector with B-coding**(6)****2138** Roller lever 7H for Position switches with safety function**(7)****1637** gold-plated contacts

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**Documents**

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**Operating instructions and Declaration of conformity (da)** 360 kB, 13.08.2012

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

**Operating instructions and Declaration of conformity (cn)** 797 kB, 02.03.2010

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

**Operating instructions and Declaration of conformity (pt)** 586 kB, 01.03.2010

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

**Operating instructions and Declaration of conformity (pl)** 475 kB, 15.11.2011

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

**Operating instructions and Declaration of conformity (de)** 581 kB, 27.11.2009

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

**Operating instructions and Declaration of conformity** (en) 605 kB, 22.03.2010

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

**Operating instructions and Declaration of conformity** (es) 516 kB, 27.11.2009

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

**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** (fr) 525 kB, 01.12.2009

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

**Operating instructions and Declaration of conformity** (it) 513 kB, 01.12.2009

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

**Operating instructions and Declaration of conformity** (nl) 710 kB, 01.12.2009

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

**CCC certification** (en) 584 kB, 12.12.2006

Code: q\_347p02

**CCC certification** (cn) 605 kB, 12.12.2006

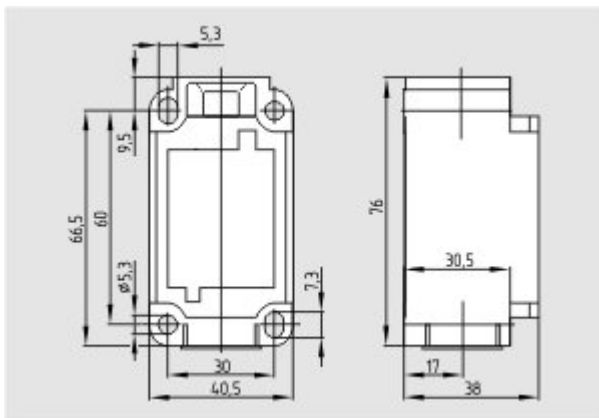
Code: q\_347p03

**Gost certification** (ru) 2 MB, 07.07.2011

Code: q\_az1p01

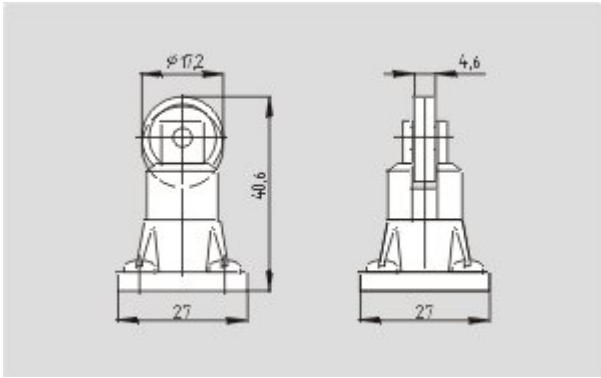
## Images

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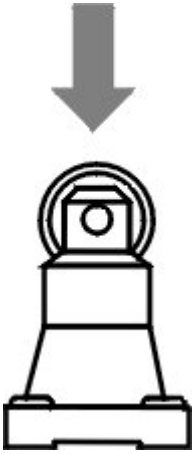


Dimensional drawing (basic component)

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Dimensional drawing (actuator)



Operating principle

K.A. Schmersal GmbH, Möddinghofe 30, D-42279 Wuppertal  
The data and values have been checked thoroughly. Technical modifications and errors excepted.  
Generiert am 02.11.2012 - 16:31:07h Kasbase 2.2.2.F DBI

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