

## Datasheet - Z4VH 335-11z

Position switch / 335 Metal enclosure - DIN EN 50041 with Actuator / 335 Roller lever H



Preferred typ



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

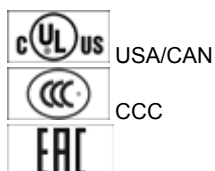
- Metal enclosure
- Wide range of alternative actuators
- Good resistance to oil and petroleum spirit
- 40,5 mm x 76 mm x 38 mm
- Snap action with constant contact pressure up to switching point
- Actuator heads can be repositioned by 4 x 90°
- 1 Cable entry M 20 x 1.5
- Design to EN 50041

### Ordering details

Product type description	Z4VH 335-11Z
Article number	101154520
EAN code	4030661172712
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	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

Product name	Z 335 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	Aluminium
- Lever material	Metal film
- Roller material	Plastic
- Material of the contacts	Silver
Housing coating	painted
Housing construction form	Norm construction design
Weight	265 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. 26 Ncm
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	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	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

## ATEX

Explosion protection categories for gases	None
Explosion protected category for dusts	None

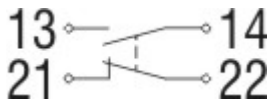
## Dimensions

Dimensions of the sensor	
- Width of sensor	40.5 mm
- Height of sensor	134 mm
- Length of sensor	60.55 mm

## notice

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

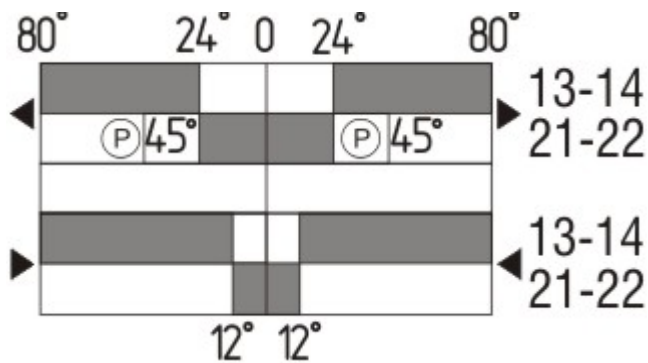
## Diagram



Note Diagram

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

## Switch travel diagram



Notes Switch travel diagram

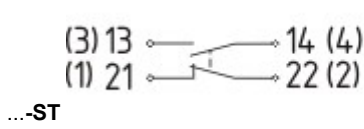
- Contact closed
- Contact open
- Setting range
- Break point
- Positive opening sequence/- angle
- VS** adjustable range of NO contact
- VÖ** adjustable range of NC contact
- N** after travel

## Ordering suffix

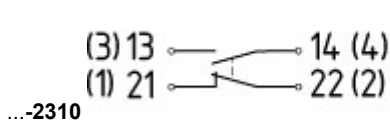
The applicable ordering suffix is added at the end of the part number of the safety switch.  
 Order example: Z4VH 335-11z-**1637**

...-1637 0,3 µm gold-plated contacts

...-NPT Cable entry NPT 1/2"



M12 connector with A-coding  
 Rated impulse withstand voltage  $U_{imp}$ : 0,8 kV  
 Rated insulation voltage  $U_i$ : 50 V  
 Rated operating voltage  $U_e$ : 50 V  
 Operating current  $I_e$ : 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  
 Rated operating voltage  $U_e$ : 50 V  
 Operating current  $I_e$ : 4 A  
 Caution! The versions with connector may only be used in PELV circuits to EN 60204-1.

...-RMS Available with metal roller

...-1H Roller material : Plastic  
 Durchmesser : 25 mm

## Ordering code

(1)(2) 3(3)5-(4)Z(5)-(6)-(7)-(8)-(9)

(1)

Z

T

(2)

S

R

H

10H

7H

1K

3K

(3)

3

5

(4)

11

02

20

01/01

12

03

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

slim design

large design

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

1 Normally open contact (NO) / 2 Opener (NC)

3 Opener (NC)

<b>(5)</b>	
<b>H</b>	Slow action with staggered contacts
<b>UE</b>	Slow action with overlapping contacts
<b>(6)</b>	
<b>G24</b>	with LED
<b>(7)</b>	
<i>without</i>	Cable entry M20
<b>NPT</b>	cable entry NPT 1/2"
<b>ST</b>	M12 connector with A-coding ( <i>Caution! The versions with connector may only be used in PELV circuits to EN 60204-1.</i> )
<b>ST-2310</b>	M12 connector with B-coding ( <i>Caution! The versions with connector may only be used in PELV circuits to EN 60204-1.</i> )
<b>(8)</b>	
<b>2138</b>	Roller lever 7H for Position switches with safety function
<b>(9)</b>	
<b>1637</b>	gold-plated contacts

## Documents

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**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

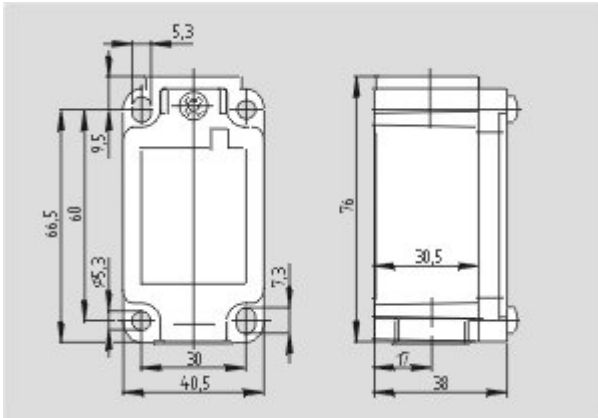
Code: q\_347p03

EAC certification (ru) 844 kB, 05.10.2015

Code: q\_6037p17\_ru

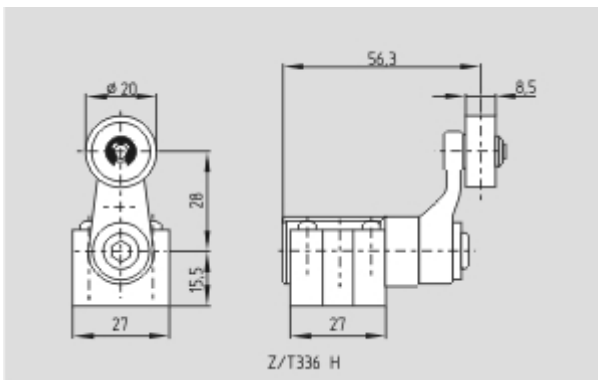
## Images

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Dimensional drawing (basic component)

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Dimensional drawing (actuator)

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The data and values have been checked thoroughly. Technical modifications and errors excepted.

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