

## Datasheet - Z4VH 355-11z

Position switch / 355 Metal enclosure - EN 50041 with Actuator / 355 Roller lever H



Preferred typ



- Metal enclosure
- Wide range of alternative actuators
- Good resistance to oil and petroleum spirit
- 66,7 mm x 76 mm x 38 mm
- Snap action with constant contact pressure up to switching point
- 3 cable entries lateral M 20 x 1.5
- Actuator heads can be repositioned by 4 x 90°
- Mounting details to EN 50041
- Switching points to EN 50041

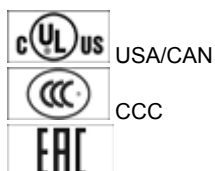
(Minor differences between the printed image and the original product may exist!)

### Ordering details

Product type description	Z4VH 355-11Z
Article number	101166307
EAN code	4030661214153
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

Product name	Z 355 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	310 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

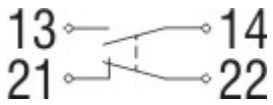
## Dimensions

Dimensions of the sensor	
- Width of sensor	66.7 mm
- Height of sensor	129.5 mm
- Length of sensor	60.55 mm

## notice

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

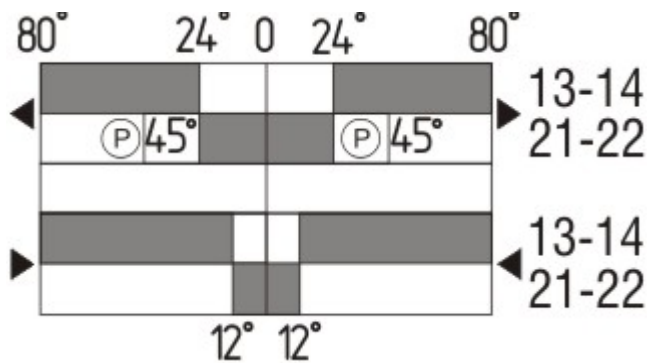
## Diagram



Note Diagram

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

## Switch travel diagram



Notes Switch travel diagram

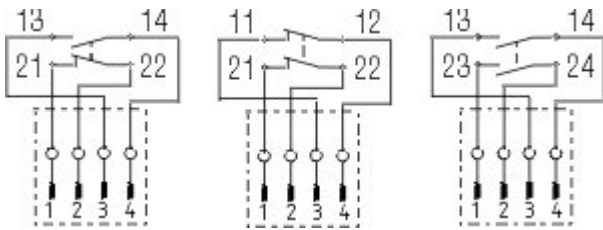
- Contact closed
  - Contact open
  - Setting range
  - Break point
  - Positive opening sequence/- angle
- VS** adjustable range of NO contact  
**VÖ** adjustable range of NC contact  
**N** after travel

## Ordering suffix

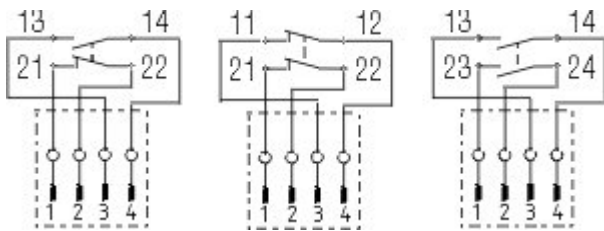
The applicable ordering suffix is added at the end of the part number of the safety switch.  
 Order example: Z4VH 355-11z-1637

...-1637 0,3 µm gold-plated contacts

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



...-ST 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.



...-2310 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.

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

...-RMS Available with metal roller

## Ordering code

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

(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)

3 slim design

5 large design

(4)

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

12 1 Normally open contact (NO) / 2 Opener (NC)

<b>03</b>	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) 310 kB, 03.04.2013

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) 355 kB, 05.08.2014

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

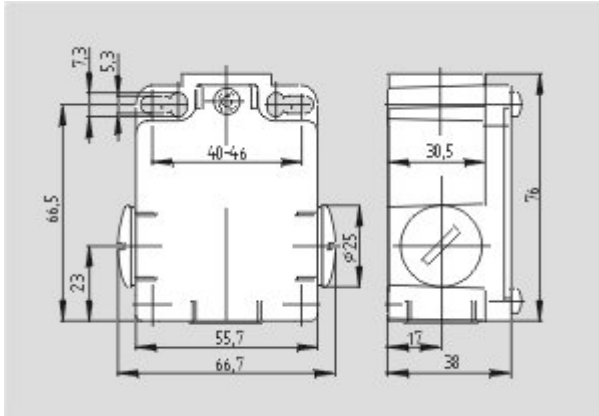
Code: q\_347p03

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

Code: q\_6037p17\_ru

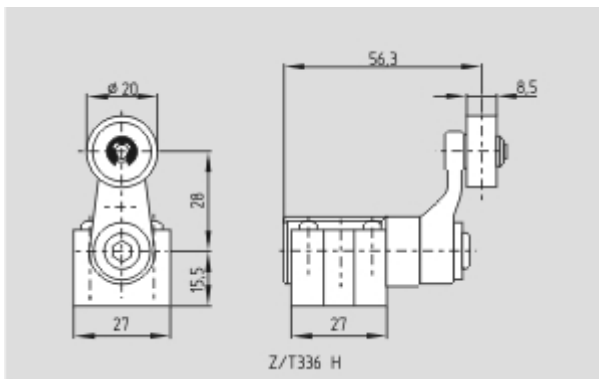
## Images

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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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