

## Datasheet - Z4V10H 335-11z



Position switch / 335 Metal enclosure - DIN EN 50041 with Actuator / 335 Rod lever 10H



- 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
- **only for positioning tasks**

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

### Ordering details

Product type description	Z4V10H 335-11Z
Article number	1162579
EAN code	4030661199672

### Approval


Approval	 USA/CAN  CCC
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### Classification

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

### Global Properties

Product name	Z 335 Stabschwenkhebel 10H
Standards	EN 60947-5-1, BG-GS-ET-15

Compliance with the Directives (Y/N) 	Yes
Suitable for safety functions (Y/N)	No
Materials	
- Material of the housings	Aluminium
- Lever material	Metal film
- Material of the rod	Plastic
- Material of the contacts	Silver
Housing coating	painted
Housing construction form	Norm construction design
Weight	265 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
Design of actuating element	Rod 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
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	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
Max. fuse rating	6 A gG D-fuse

## ATEX

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

## Dimensions

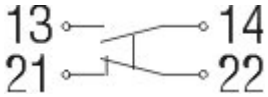
Dimensions of the sensor

- Width of sensor 40.5 mm
- Height of sensor 111.5 mm (without Rod)
- Length of sensor 38 mm

## notice

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

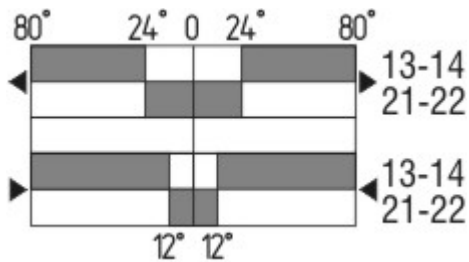
## Diagram



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.

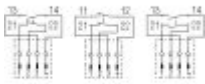
Order example: Z4V10H 335-11z-**1637**

...-**1637**

0,3 µm gold-plated contacts

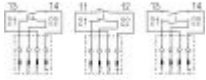
...-**NPT**

Cable entry NPT 1/2"



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.

...-2310



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.

...-ST

...- 1183

with Aluminium - Rod

## 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)  
**03** 3 Opener (NC)

(5)

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

(6)

**G24** with LED

(7)

*without* Cable entry M20

**NPT** cable entry NPT 1/2"

**ST** M12 connector with A-coding (*Caution! The versions with connector may only be used in PELV circuits to EN 60204-1.*)

**2310** M12 connector with B-coding (*Caution! The versions with connector may only be used in PELV circuits to EN 60204-1.*)

(8)

2138 Roller lever 7H for Position switches with safety function

(9)

1637 gold-plated contacts

## Documents

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

[http://www.schmersal.net/Bilddata/Si\\_f1/Pdf/Z332/bedien/NL/mrl\\_zt332-335-336-355\\_nl.pdf](http://www.schmersal.net/Bilddata/Si_f1/Pdf/Z332/bedien/NL/mrl_zt332-335-336-355_nl.pdf)

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

[http://www.schmersal.net/Bilddata/Si\\_f1/Pdf/Z332/bedien/PT/mrl\\_zt332-335-336-355\\_pt.pdf](http://www.schmersal.net/Bilddata/Si_f1/Pdf/Z332/bedien/PT/mrl_zt332-335-336-355_pt.pdf)

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

[http://www.schmersal.net/Bilddata/Si\\_f1/Pdf/Z332/bedien/IT/mrl\\_zt332-335-336-355\\_it.pdf](http://www.schmersal.net/Bilddata/Si_f1/Pdf/Z332/bedien/IT/mrl_zt332-335-336-355_it.pdf)

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

[http://www.schmersal.net/Bilddata/Si\\_f1/Pdf/Z332/bedien/CN/mrl\\_zt332-335-336-355\\_cn.pdf](http://www.schmersal.net/Bilddata/Si_f1/Pdf/Z332/bedien/CN/mrl_zt332-335-336-355_cn.pdf)

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

[http://www.schmersal.net/Bilddata/Si\\_f1/Pdf/Z332/bedien/EN/mrl\\_zt332-335-336-355\\_en.pdf](http://www.schmersal.net/Bilddata/Si_f1/Pdf/Z332/bedien/EN/mrl_zt332-335-336-355_en.pdf)

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

[http://www.schmersal.net/Bilddata/Si\\_f1/Pdf/Z332/bedien/DE/mrl\\_zt332-335-336-355\\_de.pdf](http://www.schmersal.net/Bilddata/Si_f1/Pdf/Z332/bedien/DE/mrl_zt332-335-336-355_de.pdf)

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

[http://www.schmersal.net/Bilddata/Si\\_f1/Pdf/Z332/bedien/ES/mrl\\_zt332-335-336-355\\_es.pdf](http://www.schmersal.net/Bilddata/Si_f1/Pdf/Z332/bedien/ES/mrl_zt332-335-336-355_es.pdf)

**Operating instructions and Declaration of conformity** (jp) 677 kB, 27.11.2009

[http://www.schmersal.net/Bilddata/Si\\_f1/Pdf/Z332/bedien/JP/mrl\\_zt332-335-336-355\\_jp.pdf](http://www.schmersal.net/Bilddata/Si_f1/Pdf/Z332/bedien/JP/mrl_zt332-335-336-355_jp.pdf)

**Operating instructions and Declaration of conformity** (fr) 525 kB, 01.12.2009

[http://www.schmersal.net/Bilddata/Si\\_f1/Pdf/Z332/bedien/FR/mrl\\_zt332-335-336-355\\_fr.pdf](http://www.schmersal.net/Bilddata/Si_f1/Pdf/Z332/bedien/FR/mrl_zt332-335-336-355_fr.pdf)

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

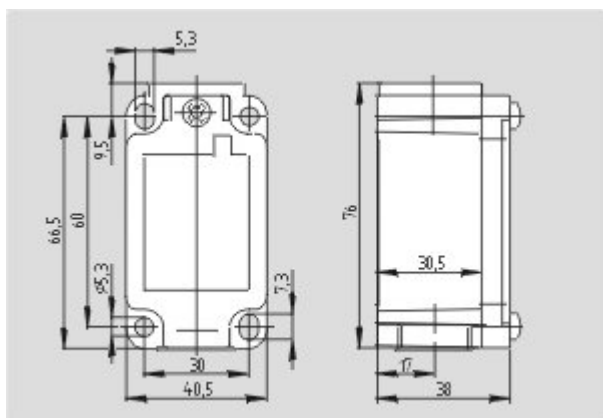
[http://www.schmersal.net/Bilddata/Si\\_f1/Pdf/Zt235/zertifikat/q\\_347p02.pdf](http://www.schmersal.net/Bilddata/Si_f1/Pdf/Zt235/zertifikat/q_347p02.pdf)

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

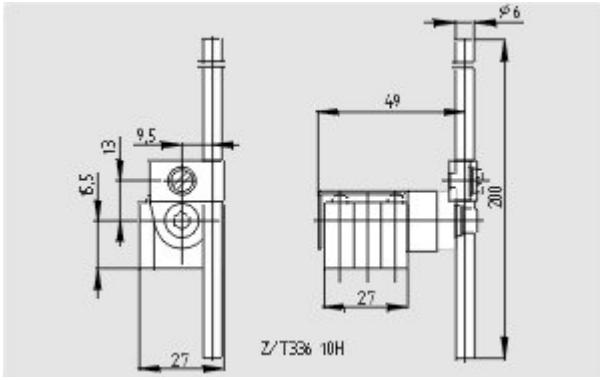
[http://www.schmersal.net/Bilddata/Si\\_f1/Pdf/Zt235/zertifikat/q\\_347p03.pdf](http://www.schmersal.net/Bilddata/Si_f1/Pdf/Zt235/zertifikat/q_347p03.pdf)

## Images

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Dimensional drawing (basic component)



Dimensional drawing (actuator)

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

Generiert am 15.04.2010 - 16:51:16h Kasbase 1.3.5 DBI