

Datasheet - ZV14H 235-11z



Position switch / 235 Metal enclosure - DIN EN 50047 with Actuator / 235 Roller lever 14H



- Metal enclosure
- Wide range of alternative actuators
- Good resistance to oil and petroleum spirit
- 30 mm x 63,5 mm x 30 mm
- Snap action with constant contact pressure up to switching point
- Actuator heads can be repositioned by 4 x 90°
- Mounting details to EN 50047
- 1 Cable entry M 20 x 1.5
- Lever angle adjustable in 10° steps

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

Ordering details

Product type description	ZV14H 235-11Z
Article number	1161649
EAN code	4030661196220

Approval


Approval	 USA/CAN  CCC
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Classification

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

Global Properties

Product name	Z 235 Rollenschwenkhebel 14H
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	Zink
- Lever material	Metal film
- Roller material	Plastic
- Material of the contacts	Silver
Housing coating	painted
Housing construction form	Norm construction design
Weight	205 g


Mechanical data

Design of actuating element	Roller lever
Design of electrical connection	Screw connection
Cable section	
- Min. Cable section	0,75 mm ²
- Max. Cable section	2.5 mm ²
Mechanical life	20.000.000 operations
Switching frequency	max. 5000 /h
actuating torque	min. 15 Ncm
Bounce duration	< 3 ms
Switchover time	< 5.5 ms
Positive break torque	18.5 Ncm
Actuating speed with actuating angle 30° to switch axis	
- Min. Actuating speed	687 mm/min
- Max. Actuating speed	1 m/s
notice	All indications about the cable section are including the conductor ferrules.

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 _{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

ATEX

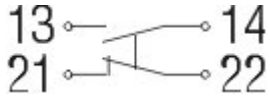
Explosion protection categories for gases	None
Explosion protected category for dusts	None

Dimensions

Dimensions of the sensor

- Width of sensor	30 mm
- Height of sensor	114 mm
- Length of sensor	46 mm

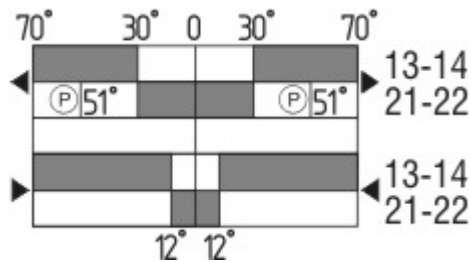
Diagram



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

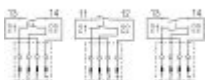
Ordering suffix

The applicable ordering suffix is added at the end of the part number of the safety switch.

Order example: ZV14H 235-11z-**1637**

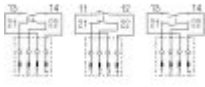
...-**1637**

0,3 µm gold-plated contacts



...-**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.



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

...-1297

Enclosure with transverse slotted holes

...-NPT

Cable entry NPT 1/2"

...-Z

Actuator head gasket

...-RMS

Available with metal roller

Ordering code

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

(1)

Z Snap action
 T Slow action

(2)

S Plunger S
 R Roller plunger R
 4S Plunger 4S
 4R Roller plunger 4R
 1R Offset roller lever 1R
 K Offset roller lever K
 3K Angle roller lever 3K
 4K Angle roller lever 4K
 K4 Angle roller lever K4
 1H Roller lever 1H
 7H Roller lever 7H
 10H Rod lever 10H
 12H Roller lever 12H
 14H Roller lever 14H

(3)

3 slim design
 5 large design

(4)

02 2 Opener (NC)
 11 1 Normally open contact (NO) / 1 Opener (NC)
 20 2 Normally open contact (NO), (Switch with 2 NO contacts are not for security tasks)

(5)

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

(6)

without Cable entry M20
 ID IDC method of termination

- 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.*)
- (7)**
- 1297** Enclosure with transverse slotted holes
- (8)**
- 2138** Roller lever 7H for Position switches with safety function
- (9)**
- 1637** gold-plated contacts

Documents

Operating instructions and Declaration of conformity (de) 644 kB, 06.04.2010
http://www.schmersal.net/Bilddata/Si_f1/Pdf/Zt235/bedien/DE/mrl_ZT235_236_de.pdf

Operating instructions and Declaration of conformity (pt) 451 kB, 01.03.2010
http://www.schmersal.net/Bilddata/Si_f1/Pdf/Zt235/bedien/PT/mrl_ZT235_236_pt.pdf

Operating instructions and Declaration of conformity (nl) 383 kB, 27.11.2009
http://www.schmersal.net/Bilddata/Si_f1/Pdf/Zt235/bedien/NL/mrl_ZT235_236_nl.pdf

Operating instructions and Declaration of conformity (en) 535 kB, 01.03.2010
http://www.schmersal.net/Bilddata/Si_f1/Pdf/Zt235/bedien/EN/mrl_ZT235_236_en.pdf

Operating instructions and Declaration of conformity (es) 391 kB, 27.11.2009
http://www.schmersal.net/Bilddata/Si_f1/Pdf/Zt235/bedien/ES/mrl_ZT235_236_es.pdf

Operating instructions and Declaration of conformity (fr) 399 kB, 27.11.2009
http://www.schmersal.net/Bilddata/Si_f1/Pdf/Zt235/bedien/FR/mrl_ZT235_236_fr.pdf

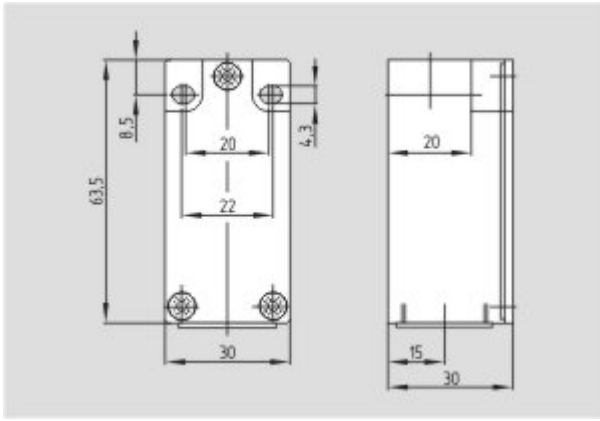
Operating instructions and Declaration of conformity (it) 375 kB, 27.11.2009
http://www.schmersal.net/Bilddata/Si_f1/Pdf/Zt235/bedien/IT/mrl_ZT235_236_it.pdf

Operating instructions and Declaration of conformity (jp) 562 kB, 27.11.2009
http://www.schmersal.net/Bilddata/Si_f1/Pdf/Zt235/bedien/JP/mrl_ZT235_236_jp.pdf

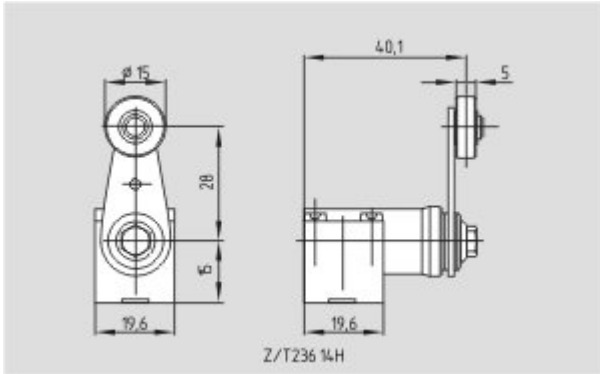
CCC certification (en) 584 kB, 12.12.2006
http://www.schmersal.net/Bilddata/Si_f1/Pdf/Zt235/zertifikat/q_347p02.pdf

CCC certification (cn) 605 kB, 12.12.2006
http://www.schmersal.net/Bilddata/Si_f1/Pdf/Zt235/zertifikat/q_347p03.pdf

Images



Dimensional drawing (basic component)



Dimensional drawing (actuator)

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