

Datasheet - TV10S 335-11Z



Safety switch for hinged guards / Hinge safety switch / TV.S 335



- Metal enclosure
- Good resistance to oil and petroleum spirit
- Actuator heads can be repositioned by 4 x 90°
- 40,5 mm x 107 mm x 65,3 mm
- Actuator shaft can be turned 360°
- 1 Cable entry M 20 x 1.5
- LED version available

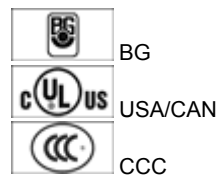
(Minor differences between the printed image and the original product may exist!)

Ordering details

Product type description	TV10S 335-11Z
Article number	1160104
EAN code	4030661188874

Approval


Approval



Classification

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

Global Properties

Product name	TV.S 335
Standards	EN 60947-5-1, BG-GS-ET-15
Compliance with the Directives (Y/N) 	Yes
Materials	
- Material of the housings	Aluminium
- Material of the contacts	Silver
Housing coating	painted
Weight	260 g

Mechanical data

Design of electrical connection	Screw connection
Cable entry M 20 x 1.5	1
Cable section	
- Min. Cable section	0,75 mm ²
- Max. Cable section	2.5 mm ²
Mechanical life	> 1.000.000 operations
Switching frequency	max. 1000/h
Design of actuating element	Other
Shaft bore	Ø 10 mm
Positive break angle	7°
Positive break torque	60 Ncm
notice	All indications about the cable section are including the conductor ferrules.

Ambient conditions

Ambient temperature	
- Min. environmental temperature	- 25°C
- Max. environmental temperature	+ 70°C
Protection class	IP67

Electrical data

Design of control element	Normally open contact (NO), Opener (NC)
Switching principle	Creep circuit element
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 / 4 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	107 mm
- Length of sensor	65.3 mm

notice

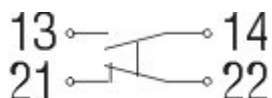
Setting assistance

Grub screw for location, shaft pre-drilled for pin

Universal joint available to compensate for axial displacement (only for shaft bore 10 mm)

By turning the head in 90° steps, 8 actuating planes are possible. A Torx T10 screwdriver is needed for this purpose. Even when the screw is removed, the head is self-retaining. The switch can still not be tampered.

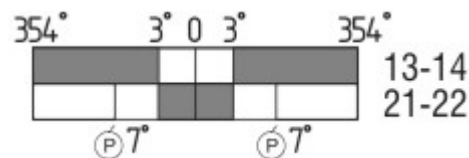
Diagram



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

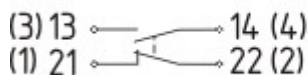
The applicable ordering suffix is added at the end of the part number of the safety switch.

Order example: TV10S 335-11Z-NPT

...-NPT

Cable entry NPT 1/2"

...-ST



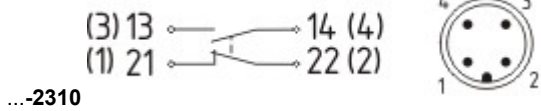
M12 connector with A-coding

Rated impulse withstand voltage U_{imp} : 0,8 kV

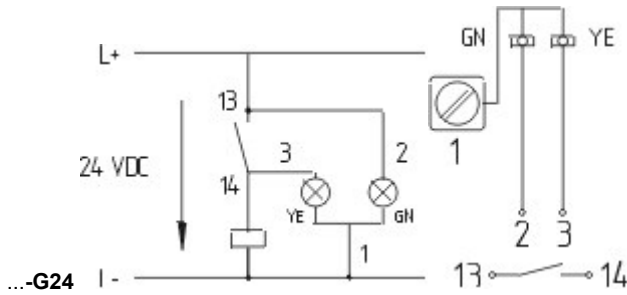
Rated insulation voltage U_i : 50 V

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.



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.



only available for version with one NO and one NC contact.
 Protected against incorrect polarity and voltage spikes.

Ordering code

TV(1)S 335-(2)Z-(3)

(1)

8 Shaft bore \varnothing 8 mm

10 Shaft bore \varnothing 10 mm

(2)

02 2 Opener (NC)

03 3 Opener (NC)

11 1 Normally open contact (NO) / 1 Opener (NC)

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

(3)

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.*)

G24 with LED (*only available for version with one NO and one NC contact.*)

Documents

Operating instructions and Declaration of conformity (de) 763 kB, 26.02.2010

http://127.0.0.1/Bilddata/Drehbar/Pdf/Tv335_55/bedien/de/mrl_tvs335-355_de.pdf

Operating instructions and Declaration of conformity (en) 775 kB, 26.02.2010

http://127.0.0.1/Bilddata/Drehbar/Pdf/Tv335_55/bedien/en/mrl_tvs335-355_en.pdf

BG-test certificate (en) 200 kB, 01.06.2010

http://127.0.0.1/Bilddata/Drehbar/Pdf/Tv335_55/baumuste/z_tvsp02.pdf

BG-test certificate (de) 201 kB, 01.06.2010

http://127.0.0.1/Bilddata/Drehbar/Pdf/Tv335_55/baumuste/z_tvsp01.pdf

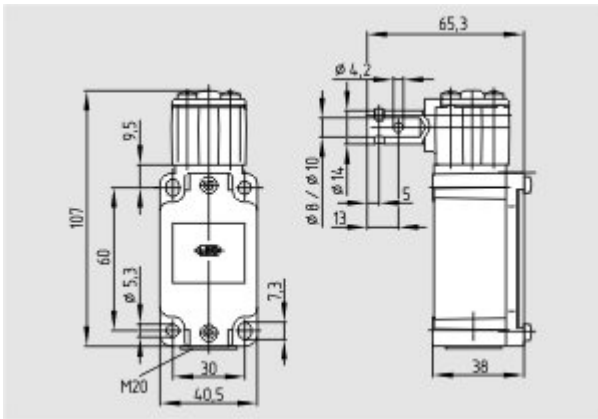
CCC certification (en) 577 kB, 12.12.2006

http://127.0.0.1/Bilddata/Drehbar/Pdf/Tv335_55/zertifikat/q_349p02.pdf

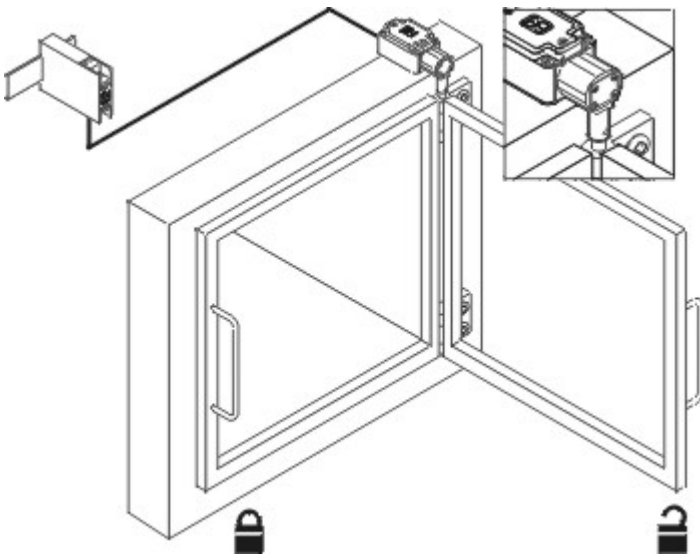
CCC certification (cn) 609 kB, 12.12.2006

http://127.0.0.1/Bilddata/Drehbar/Pdf/Tv335_55/zertifikat/q_349p03.pdf

Images



Dimensional drawing (basic component)



Application

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

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