

Datasheet - TV8S 521-02/20Z

Safety switch for hinged guards / Hinge safety switch / TV8S 521



SCHMERSAL



- Metal enclosure
- Good resistance to oil and petroleum spirit
- Mounting independent of hinge
- 92 mm x 81,5 mm x 27 mm
- Variable mounting on hinged side
- Rail-mounting possible with slot nuts
- 2-channel, alternating monitoring
- Actuator shaft can be turned 360°
- For left or right hinged doors
- Push-in system (toothed shaft)
- 2 cable entries M 16 x 1.5
- 2 switches in one enclosure

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

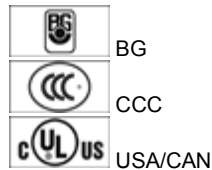
Ordering details

Product type description	TV8S 521-02/20Z
Article number	1138422
EAN code	4030661281278

When ordering, first the desired safety switch should be selected and then the appropriate universal joint; for universal joint K1, additionally the corresponding F or L hinge

Approval

Approval




Classification

Standards	EN ISO 13849-1
B _{10d} Opener (NC)	20.000.000
Mission time notice	20 Years

$$MTTF_d = \frac{B_{10d}}{0,1 \times n_{op}}$$

$$n_{op} = \frac{d_{op} \times h_{op} \times 3600 \text{ s/h}}{t_{cycle}}$$

Global Properties

Product name	TV8S 521
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	268 g

Mechanical data

Design of electrical connection	Screw connection
Cable entry M 16 x 1.5	2
Cable section	
- Min. Cable section	1 x 0,75 mm ²
- Max. Cable section	1 x 1.5 mm ²
Mechanical life	> 1.000.000 operations
Switching frequency	max. 1000 /h
Shaft bore	Inner toothing 10 mm
Positive break angle	14 °
Positive break torque	8 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	0 piece (S1), 2 piece (S2)
Number of safety contacts	2 piece (S1), 0 piece (S2)
Rated impulse withstand voltage U_{imp}	4 kV
Rated insulation voltage U_i	250 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	92 mm
- Height of sensor	81.5 mm

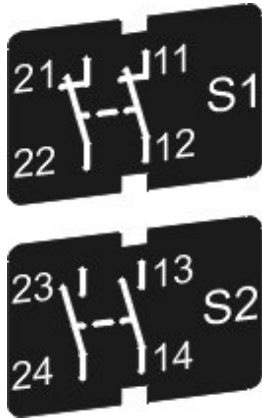
- Length of sensor

27 mm


notice


Universal joint to compensate axial displacement
Switching point subsequently adjustable using hinge L


Diagram





Note Diagram

 positive break NC contact

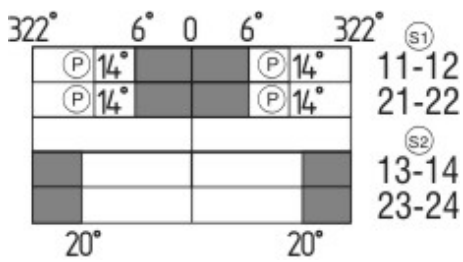
 active

 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

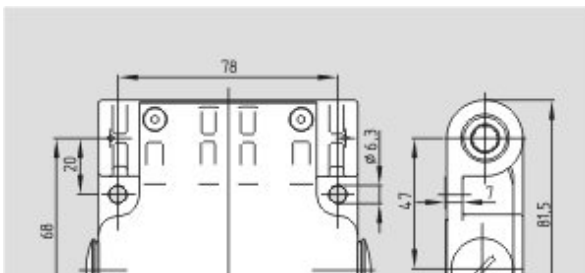
Ordering code

TV8S 521-(1)

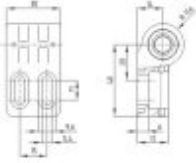
(1)

11/11 Switch insert 1: 1 Normally open contact (NO) / 1 Opener (NC)
Switch insert 2: 1 Normally open contact (NO) / 1 Opener (NC)

02/20 Switch insert 1: 2 Opener (NC)
Switch insert 2: 2 Normally open contact (NO)



1138414 - Fixed hinge F



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

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