

## Datasheet - TV8S 521-02/20Z

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



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

- 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

### Ordering details

Product type description	TV8S 521-02/20Z
Article number	101138422
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

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

Permanent light	TV8S 521
Standards	EN 60947-5-1, BG-GS-ET-15

Compliance with the Directives (Y/N) 

Yes

#### Materials

- Material of the housings
- Material of the contacts

Aluminium

Silver

Housing coating

painted

Weight

268

### Mechanical data

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Design of electrical connection

Screw connection

Cable entry M 16 x 1.5

2

Cable section

- Min. Cable section
- Max. Cable section

1 x 0,75 mm<sup>2</sup>

1 x 1.5 mm<sup>2</sup>

Mechanical life

> 1.000.000 operations

Switching frequency

max. 1000 /h

notice

All indications about the cable section are including the conductor ferrules.

notice

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Shaft bore

Inner toothing 10 mm

Positive break angle

14 °

Positive break torque

8 Ncm

### Ambient conditions

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Ambient temperature

- Min. environmental temperature
- Max. environmental temperature

-25 °C

+70 °C

Protection class

IP67

### Electrical data

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Design of control element

Normally open contact (NO), Opener (NC)

Switching principle

Creep circuit element

Number of auxiliary contacts

0 ( S1), 2 ( S2)

Number of safety contacts

2 ( S1), 0 ( 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

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Explosion protection categories for gases

None

Explosion protected category for dusts

None

### Dimensions

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Dimensions of the sensor

- Width of sensor
- Height of sensor
- Length of sensor

92 mm

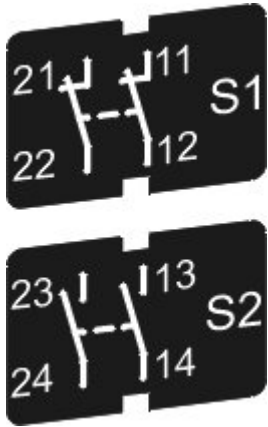
81.5 mm

27 mm

**notice**

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

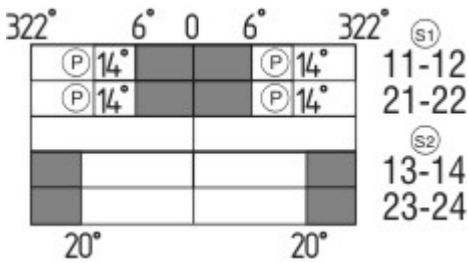
**Diagram**



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

02/20

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

## Documents

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**Operating instructions and Declaration of conformity (nl)** 436 kB, 11.07.2018

Code: mrl\_tv8s521\_nl

**Operating instructions and Declaration of conformity (es)** 440 kB, 21.12.2017

Code: mrl\_tv8s521\_es

**Operating instructions and Declaration of conformity (da)** 397 kB, 18.06.2013

Code: mrl\_tv8s521\_da

**Operating instructions and Declaration of conformity (en)** 440 kB, 14.11.2017

Code: mrl\_tv8s521\_en

**Operating instructions and Declaration of conformity (de)** 411 kB, 14.11.2017

Code: mrl\_tv8s521\_de

**Operating instructions and Declaration of conformity (it)** 433 kB, 21.12.2017

Code: mrl\_tv8s521\_it

**Operating instructions and Declaration of conformity (pt)** 439 kB, 31.01.2018

Code: mrl\_tv8s521\_pt

**Operating instructions and Declaration of conformity (pl)** 471 kB, 09.05.2018

Code: mrl\_tv8s521\_pl

**Operating instructions and Declaration of conformity (jp)** 925 kB, 22.09.2011

Code: mrl\_tv8s521\_jp

**Operating instructions and Declaration of conformity (fr)** 442 kB, 16.01.2018

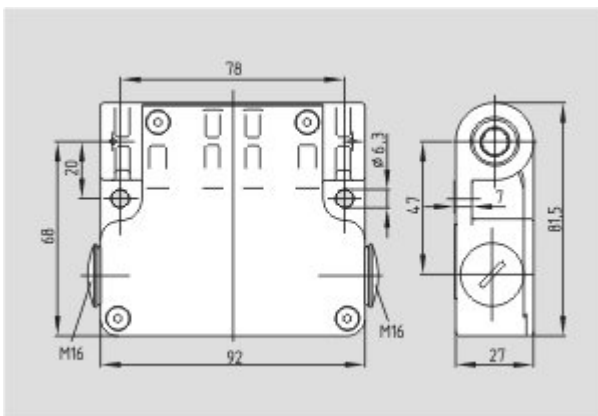
Code: mrl\_tv8s521\_fr

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

Code: q\_6037p17\_ru

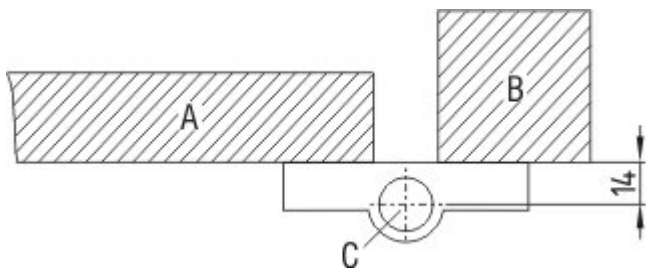
## Images

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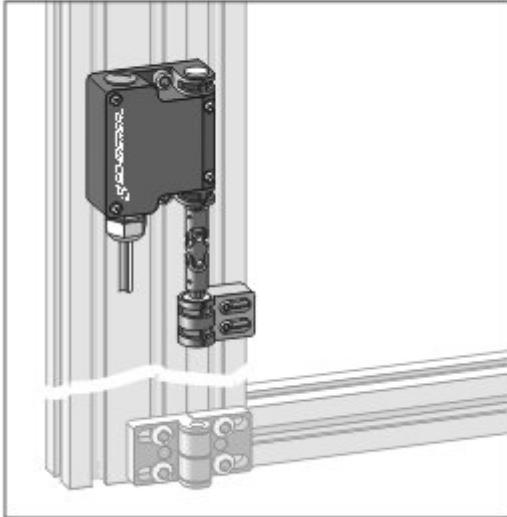


Dimensional drawing (basic component)

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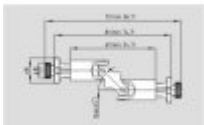
Dimensional drawing (miscellaneous)



Application

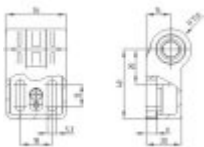
## System components

### Accessories

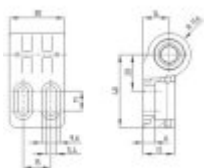


#### 101138412 - UNIVERSAL JOINT K1

- Factory-mounted pins
- Universal joint to compensate axial displacement



#### 101138413 - adjustable hinge L



#### 101138414 - Fixed hinge F

