

Datasheet - TEF/S/ST24.2/U

Safety switch for hinged guards / Hinge safety switch / TEF



- Metal enclosure
- Good resistance to oil and petroleum spirit
- For left or right hinged doors
- 141 mm x 115 mm x 21,5 mm
- Simple mounting, suitable for all conventional profile systems (30 ... 60 mm)
- 1 cable entries M 16 x 1.5
- 1 connector M12, 8-pole

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

Ordering details

Product type description	TEF/S/ST24.2/U
Article number	101182740
EAN code	

Approval

Approval





Classification

Standards	EN ISO 13849-1
B _{10d} Normally-closed contact (NC)	2.000.000
B _{10d} Normally open contact (NO)	1.000.000
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

Product name	TEF
Standards	EN 60947-5-1 / BG-GS-ET-15

Compliance with the Directives (Y/N) 	Yes
Materials	
- Material of the housings	zinc die-cast
- Material of the contacts	Silver-nickel alloy 10
Enclosure color	Black 
Weight	616 g

Mechanical data

Design of electrical connection	Plug-in connection, above
Mechanical life	> 1.000.000 operations
Switching frequency	1200/h
Opening angle	180°
Positive break angle	10°
additional hinge (Y/N)	No
Adjustable switching angle (Y/N)	Yes
Alignment aid (Y/N)	No
Mounting inside (Y/N)	No
Mounting outside (Y/N)	No

Ambient conditions

Ambient temperature	
- Min. environmental temperature	-25 °C
- Max. environmental temperature	+65 °C
Protection class	IP65

Electrical data

Design of control element	Normally open contact (NO), Opener (NC)
Switching principle	Creep circuit element
Number of auxiliary contacts	2 piece
Number of safety contacts	2 piece
Rated impulse withstand voltage U_{imp}	2.5 kV
Rated insulation voltage U_i	250 V
Thermal test current I_{the}	2.5 A
Utilisation category	AC-15: 230 V / 2 A, DC-13: 24 V / 1 A
Max. fuse rating	2 A gG D-fuse
Switching of low voltages	1 mA / 5 VDC

ATEX

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

Dimensions

Dimensions of the sensor	
- Width of sensor	141 mm
- Height of sensor	115 mm
- Length of sensor	21.5 mm

notice

Closed guard device = 0° in contact switch travel diagrams.

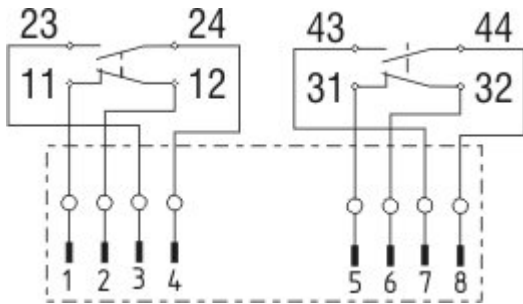
The factory-set switching angle is 3°.

The positive break angle is 5°.

Until the limit of the mechanical life has been reached the angle can increase up to 8° under normal wear-out conditions.

Caution! The versions with connector may only be used in PELV circuits to EN 60204-1.

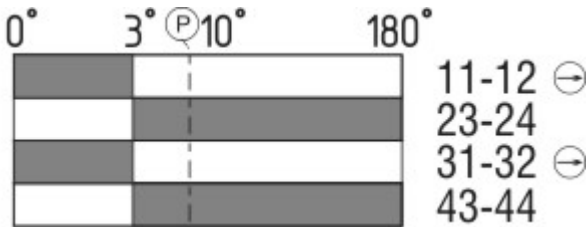
Diagram



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

TESF (1)/(2)/(3)/(4)/(5)

- (1) without Alignment aid
- A** with Alignment aid
- (2) without additional hinge

S	without additional hinge
(3)	
without	Screw connection
CC	Enstion spring connection
ST24	Connector 24 V
(4)	
.1	male connector bottom
.2	Connector above
(5)	
0	Mounted head-on
180	Mounting inside
U	for setting by the customer

Documents

Operating instructions and Declaration of conformity (de) 526 kB, 06.08.2013

Code: mrl_tesf_de

Operating instructions and Declaration of conformity (en) 512 kB, 06.08.2013

Code: mrl_tesf_en

Operating instructions and Declaration of conformity (nl) 604 kB, 22.06.2012

Code: mrl_tesf_nl

Operating instructions and Declaration of conformity (fr) 603 kB, 22.06.2012

Code: mrl_tesf_fr

Operating instructions and Declaration of conformity (it) 603 kB, 22.06.2012

Code: mrl_tesf_it

Operating instructions and Declaration of conformity (jp) 698 kB, 22.06.2012

Code: mrl_tesf_jp

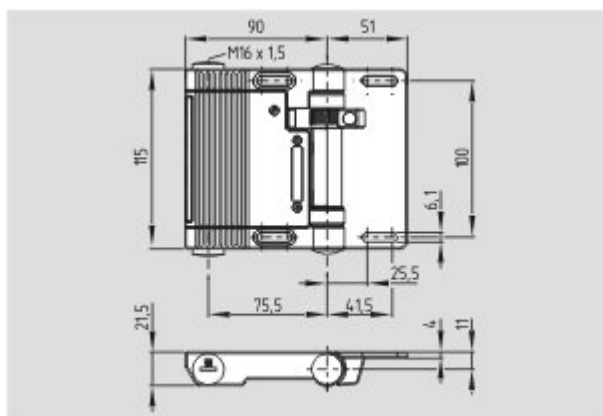
Operating instructions and Declaration of conformity (es) 606 kB, 22.06.2012

Code: mrl_tesf_es

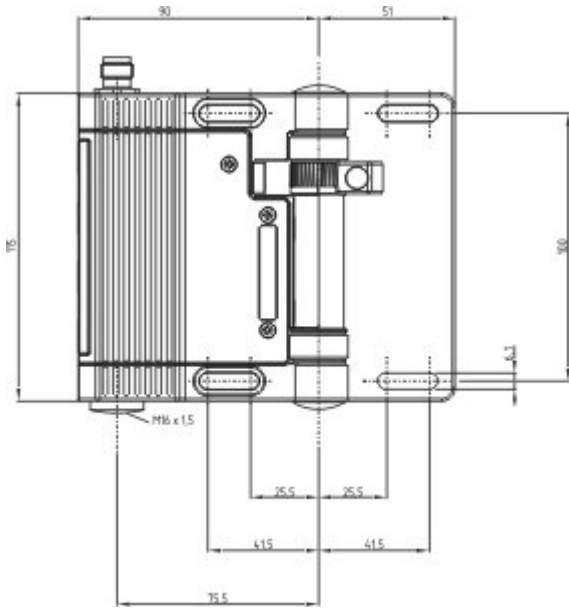
BG-test certificate (de, en) 1 MB, 26.05.2011

Code: z_tesp01

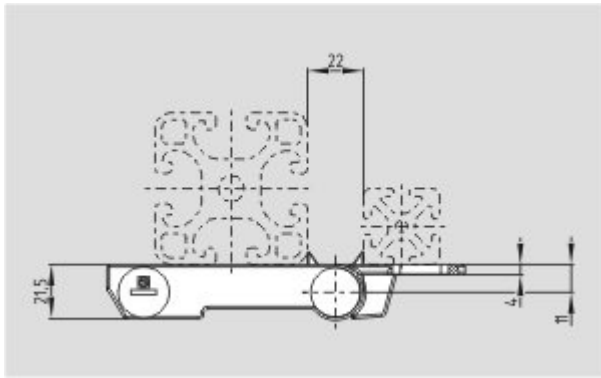
Images



Dimensional drawing (basic component)



Dimensional drawing (basic component)



Dimensional drawing (miscellaneous)

System components

Accessories

101180239 - Tooling reference TESF-14



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

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Image

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