

4.

4.2

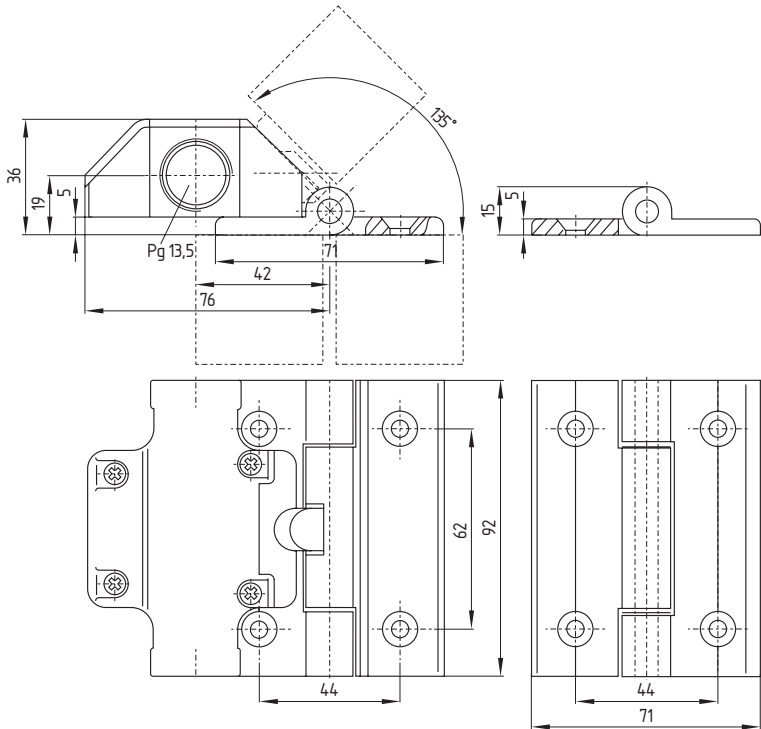
4.2.5

Safety switches for hinged safety guards  
Hinge safety switches  
TVS 400 range



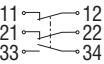
Features

- Thermoplastic enclosure
- Simple mounting, especially on 40 mm profiles
- Good resistance to oil and petroleum spirit
- 2 cable entries
- For doors hinged on left or right-hand side

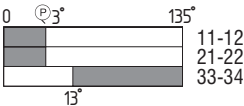
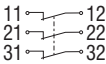


Contacts/  
Switch travel

1 NO  
2 NC



3 NC

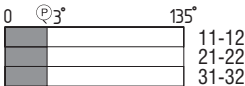


With mounting hinge  
and additional hinge

TVS 400-12/BZ

With mounting hinge,  
without additional hinge

TVS 400-12/B



TVS 400-03/BZ

TVS 400-03/B

Note

Closed guard device = 0° in contact switch travel diagrams. The opening angle has been set to 3° in factory. Until the limit of the mechanical life has been reached the angle can increase up to 8° under normal wear-out conditions.

Approvals



4. Safety switches for hinged safety guards

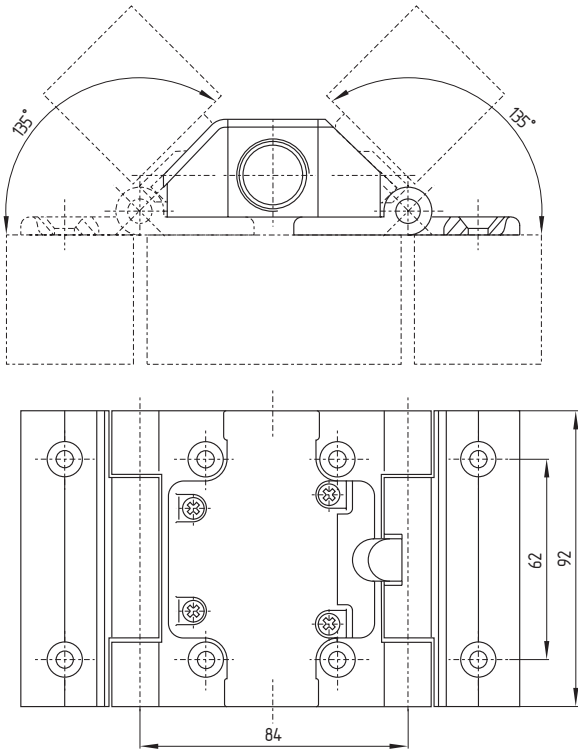
4.2 Hinge safety switches

4.2.5 TVS 400 range



Mounting  
example

- 2 doors hinged on a central pillar



Info

- The additional hinge including mounting accessories is also available separately, part number Z 400
- Plug connection and mounting kits for profile sections of the most common makes on enquiry

Ordering  
details

A TVS 400 safety switch with 1 NO and 2 NC contacts with mounting and additional hinge:  
TVS 400-12/BZ

4.

4.2

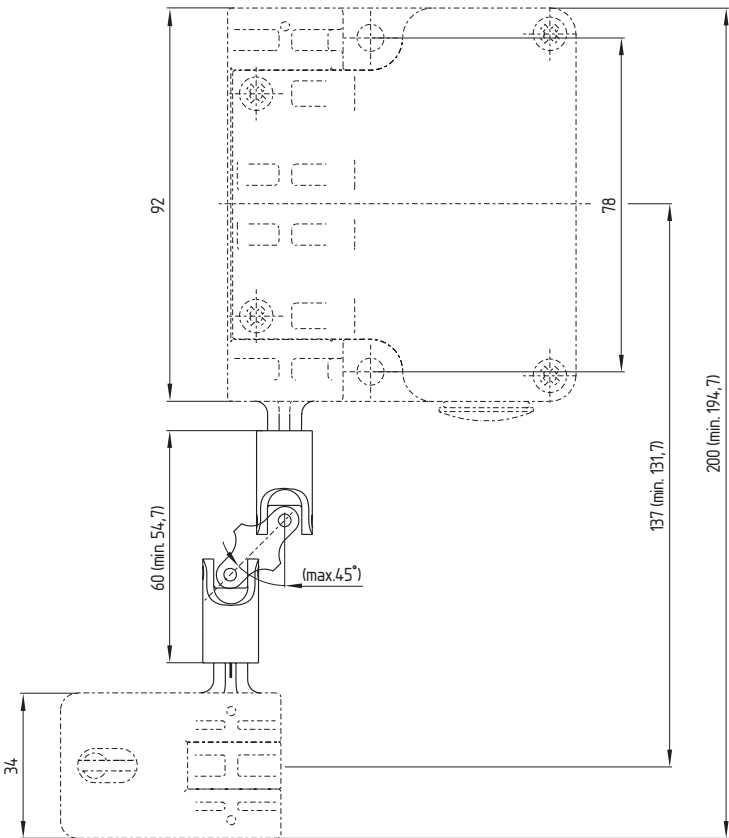
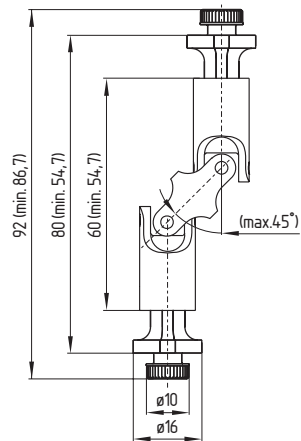
4.2.7

Safety switches for hinged safety guards  
Hinge safety switches  
Accessories



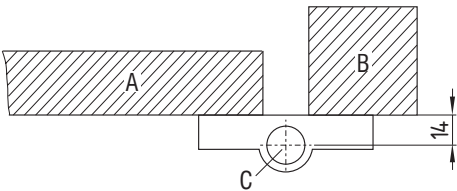
Universal joint K1

- Complete with pins mounted
- Only suitable for TV8S 521



Mounting details

- A = Guard door
- B = Door post
- C = Door hinge
- D = Distance from axis of hinge



## 4. Safety switches for hinged safety guards

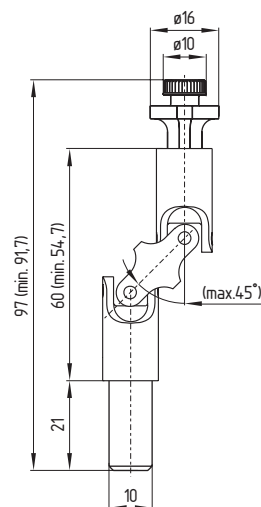
### 4.2 Hinge safety switches

#### 4.2.7 Accessories



### Universal joint K2

- Factory-mounted pins
- Suitable for ES 95 SB-10mm, EEx 95 SB-10mm, TV10S 335 and TV10S 355
- Suitable only in connection with hinges F and L



4.

4.2

4.2.7

Safety switches for hinged safety guards

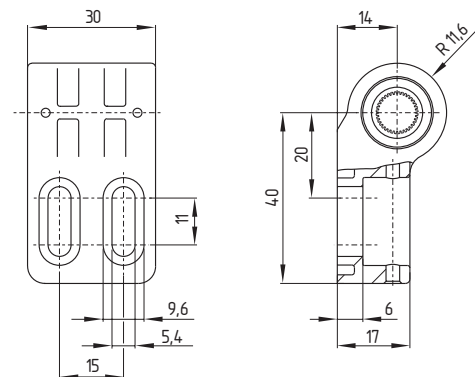
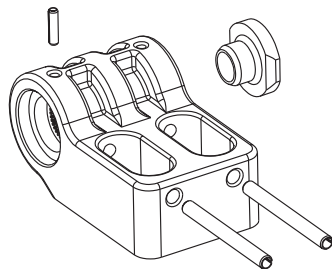
Hinge safety switches

Accessories



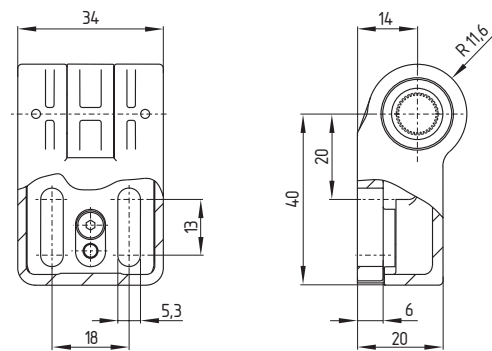
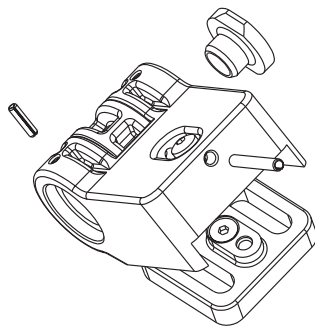
Fixed hinge F

- Included  
in delivery
- Locating pins
  - One blanking plug
  - Two M 5 x 20 screws to ISO 7380



Adjustable hinge L

- Included  
in delivery
- Locating pins
  - One blanking plug
  - Two M 5 x 20 screws to ISO 7380



4.
4.3

Safety switches for hinged safety guards
Technical data

	TV.S 335/355	T.V10S 500	TVS 400	TV8S 521
Standards:	IEC/EN 60947-5-1; EN 1088; BG-GS-ET-15			
Design:	Mounting dimensions to EN 50047			
Enclosure material:	Light-alloy diecasting, enamelled	Light-alloy, enamelled	Glass-fibre reinforced thermoplastic, self-extinguishing	Light-alloy diecasting, enamelled
Protection class:	IP 67 to IEC/EN 60529		IP 65	IP 67
Contact material:	Silver			
Contact type:	Change-over with double break Zb or 1 NC or 2 NC, with galvanically separated contact bridges	2 or 3 change-over contacts with double break Zb	Change-over with double break Zb or 3 NC	2 change-over contacts with double break Zb, with galvanically separated contact bridges
Switching system:	⊖ IEC 60947-5-1; ⊕ BG-GS-ET-15; slow action, NC contacts with positive break			
Termination:	Screw terminals for max. 2.5 mm <sup>2</sup> cables (incl. conductor ferrules)			
Rated impulse withstand voltage U <sub>imp</sub> :	6 kV	4 kV	2.5 kV	4 kV
Rated insulation voltage U <sub>i</sub> :	500 V	250 V		
Thermal test current I <sub>th</sub> :	10 A		2.5 A	6 A
Utilisation category:	AC-15; DC-13			
Rated operating current/voltage I <sub>e</sub> /U <sub>e</sub> :	4 A/230 VAC; 2.5 A/400 VAC; 1 A/500 VAC; 1 A/24 VDC		2.5 A/230 VAC; 2 A/250 VAC; 1 A/24 VDC	4 A/230 VAC; 2.5 A/400 VAC; 1 A/500 VAC; 1 A/24 VDC
Max. fuse rating:	6 A (slow blow)		2 A (slow blow)	6 A (slow blow)
Ambient temperature:	– 25 °C ... + 70 °C	– 25 °C ... + 80 °C	– 25 °C ... + 65 °C	– 25 °C ... + 70 °C
Mechanical life:	> 1 million operations	3 million operations	> 1 million operations	
Switching frequency:	Max. 1,000 / h		Max. 1,200 / h	Max. 1,000 / h
Shaft bore:	Ø 8 or 10 mm	Ø 10 mm	–	Inner toothing
Positive break angle:	7°	10°	5°	14°
Positive break torque:	0.23 Nm	1.5 Nm	1 Nm	0.8 Nm

