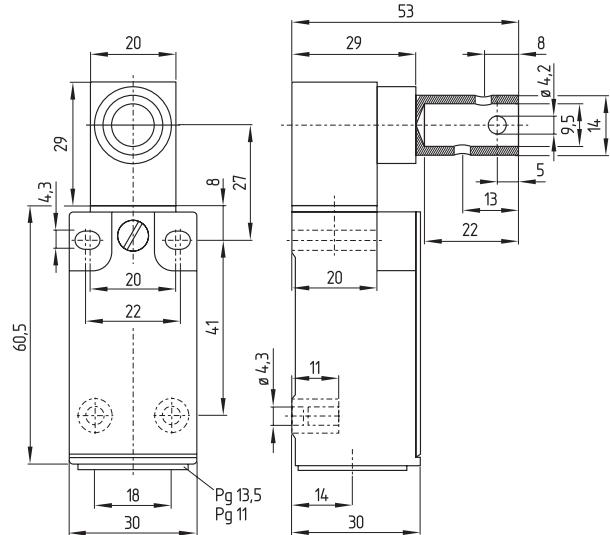


**4. Safety switches for hinged safety guards**  
**4.2 Hinge safety switches**  
**4.2.1 ES 95 SB range**



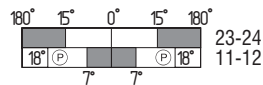
**Features**

- Thermoplastic enclosure
- Double insulated  $\square$
- Good resistance to oil and petroleum spirit
- Actuator heads can be turned in steps 4 x 90°
- Actuating shaft can be turned 360°
- Bore for shaft  $\varnothing$  9.5 mm
- Cable entry Pg 11 or Pg 13.5 available
- EEx version see chapter 14.1.4.1

**Info**

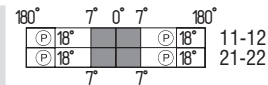
- Shaft bore  $\varnothing$  10 mm available, ordering suffix -10mm
- Available with solid shaft
- M 12 plug (A-coding), ordering suffix -ST
- M 12 plug (B-coding), ordering suffix -2310
- Universal joint K2 available to compensate for axial displacement, see chapter 4.2.7

**Contacts/  
Switch travel**



Slow action

**ES 95 SB 1Ö/1S**



**ES 95 SB 2Ö**

**Notes**

Closed guard device = 0° in contact switch travel diagrams.  
 This is the rest position of the switch.  
 Universal joints and hinges, see chapter 4.2.7.

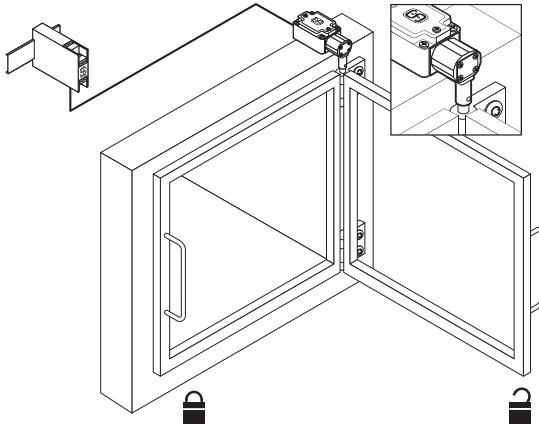
**Approvals**



**4. Safety switches for hinged safety guards**  
**4.2 Hinge safety switches**  
**4.2.1 ES 95 SB range**



Application

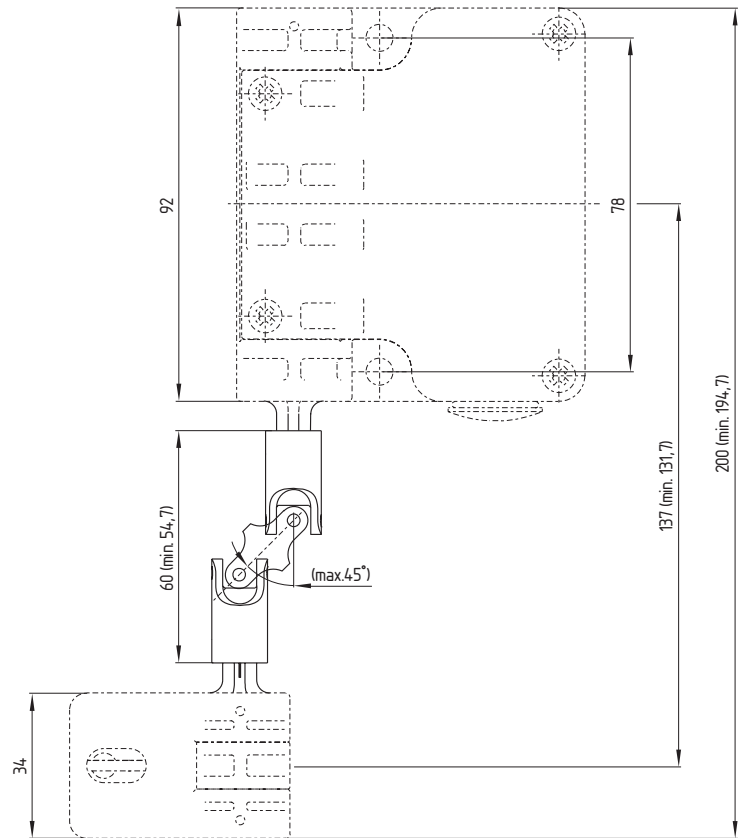
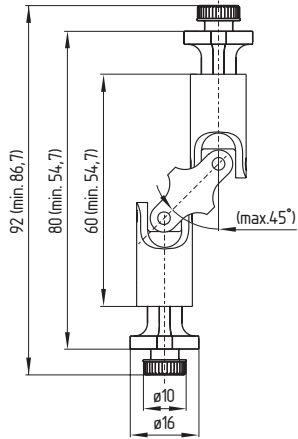


**4. Safety switches for hinged safety guards**  
**4.2 Hinge safety switches**  
**4.2.7 Accessories**



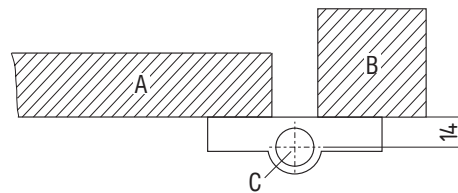
**Universal joint K1**

- 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

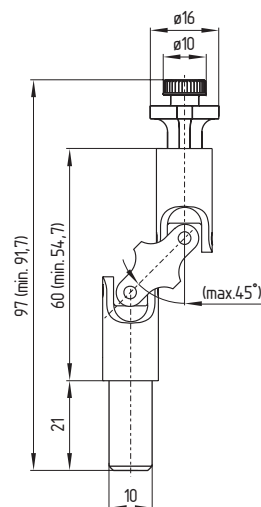


**4. Safety switches for hinged safety guards**  
**4.2 Hinge safety switches**  
**4.2.7 Accessories**



### 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



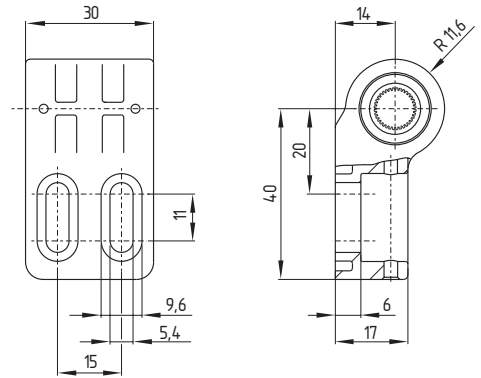
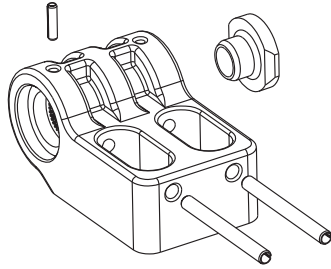
**4. Safety switches for hinged safety guards**  
**4.2 Hinge safety switches**  
**4.2.7 Accessories**



**Fixed hinge F**

**Included in delivery**

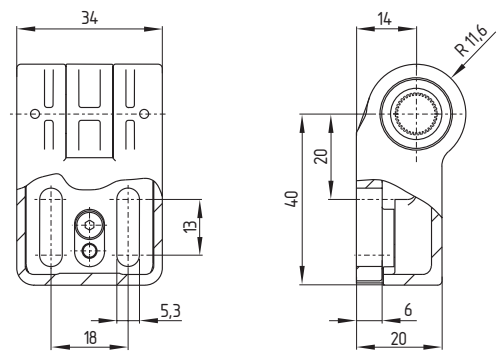
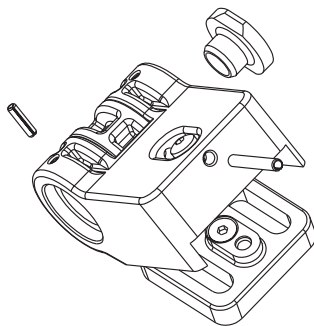
- Locating pins
- One blanking plug
- Two M 5 x 20 screws to ISO 7380



**Adjustable hinge L**

**Included in delivery**

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



## 4. Safety switches for hinged safety guards

### 4.3 Technical data

	T.C 235	T.C 236	ES 95 SB
Standards:	IEC/EN 60947-5-1; EN 1088; BG-GS-ET-15		
Design:	Mounting dimensions to EN 50047		
Enclosure:	Zinc diecasting, enamelled	Glass-fibre reinforced thermoplastic, self-extinguishing	
Protection class:	IP 67 to IEC/EN 60529		
Contact material:	Silver		
Contact type:	Change-over with double break Zb or 1 NC or 2 NC contacts, 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		
Rated insulation voltage U <sub>i</sub> :	500 V	400 V	
Thermal test current I <sub>th</sub> :	10 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	4 A/230 VAC; 2.5 A/400 VAC; 1 A/500 VAC; 1 A/24 VDC	
Max. fuse rating:	6 A (slow blow)		
Ambient temperature:	- 30 °C ... + 80 °C		- 25 °C ... + 80 °C
Mechanical life:	> 1 million operations		10 million operations
Switching frequency:	Max. 5,000 / h		
Shaft bore:	-		Ø 9,5 mm
Positive break angle:	12.5°		18°
Positive break torque:	0.185 Nm		0.6 Nm

CE