

Safety switches
for hinged guard doors

Thermoplastic enclosure

// Series ES 95 T.C

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// Series ES 13 SB

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Safety switches for hinged guard doors

Range of application

These safety switches are suitable for hinged safety guards, which need to be closed in order to guarantee the necessary operational safety.

The variety of requirements to be found in practice can be met by means of the wide range of safety switches for hinged guard doors.

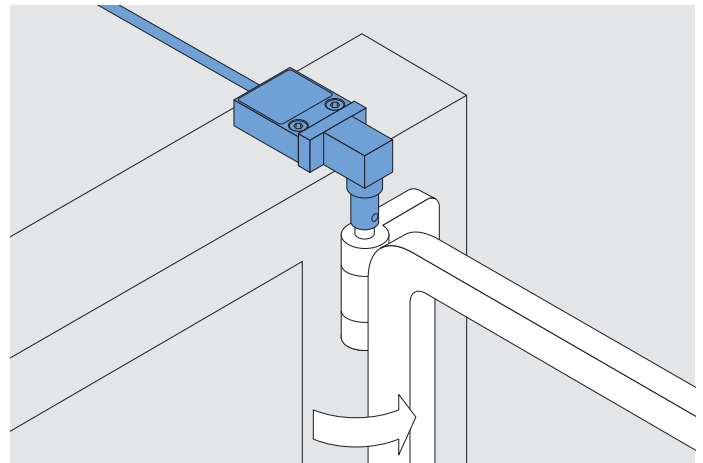
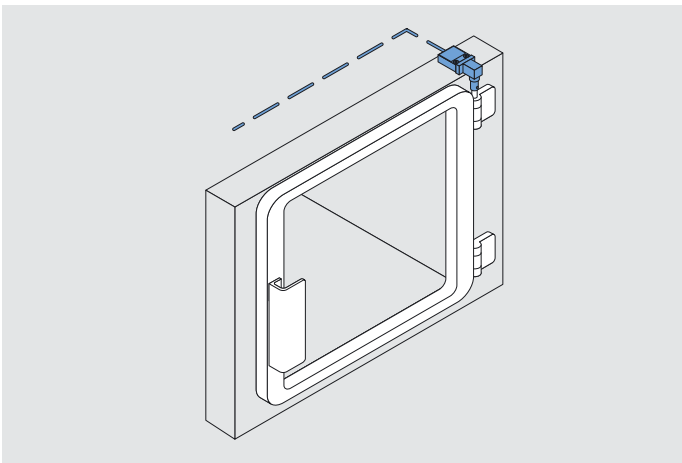
Depending on the particular version of the switch, small doors and service flaps, as well as heavy hinged doors on machinery and plants, can be protected in such a way as to provide for easy setting up and maintenance.

Design and operating principle

A general advantage of the safety switches shown here is the integral cam within the safety switch. The requirements of EN 1088, such as positive linkage between cam and actuator, as well as protection against tampering, are thus fulfilled. This combination within the switch provides cost advantage for the user in avoiding the necessity of mounting a specially designed cam. These safety switches are provided with slow action.

Application

ES 13 SB on hinged safety guard



Safety switches for hinged guard doors

// Series ES 95 T.C

Features/Options

- Thermoplastic enclosure
- Double insulated \square
- Slow action \ominus , change-over contact with double break
- Cable entry M20 x 1.5
- Wiring compartment
- Ex-version available
- With gold-plated contacts available on request
- Mounting details to EN 50 047
- Horizontal mounting slots
- Actuator heads can be repositioned in 4 x 90° steps

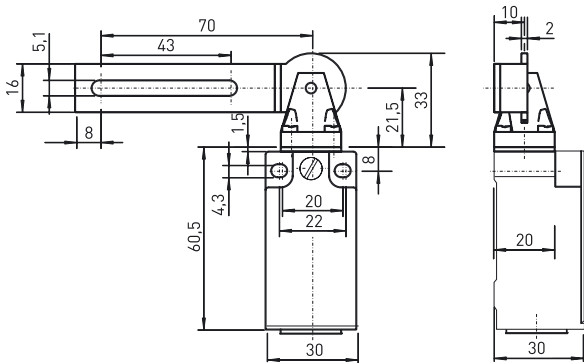
// ES 95 T.C



Technical data

Standards	IEC/EN 60947-5-1; EN 1088; BG-GS-ET-15
Enclosure	glass-fibre reinforced, shock-proof thermoplastic, self-extinguishing UL 94-V0
Actuator	stainless steel 1. 4301
Protection class	IP 67 to EN 60529
Contact material	silver
Switching system	slow action, positive break NC contacts \ominus
Switching elements	change-over contact with double break Zb or 2 NC contacts, galvanically separated contact bridges
Termination	M3 screw terminals
Cable section	max. 1.5 mm ² (incl. conductor ferrules)
U_{imp}	4 kV
U_i	400 V
I_{the}	6 A
I_e/U_e	6 A/400 VAC; 0,25 A/230 VDC
Utilisation category	AC-15, DC-13
Max. fuse rating	6 A gL/gG D-fuse
Ambient temperature	-20 °C ... +80 °C
Mechanical life	> 1 million operations
Approvals	US

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Contact variants: switch travel/contacts

1 NC / 1 NO contact	Slow action
	ES 95 T5C 1Ö/1S

Ordering details

ES 95 T5C 1Ö/1S

- Contact type 1NC/1NO, (2Ö, UE)
- Actuator T5C
- Series
- S Slow action

Safety switches for hinged guard doors

// Series ES 13 SB

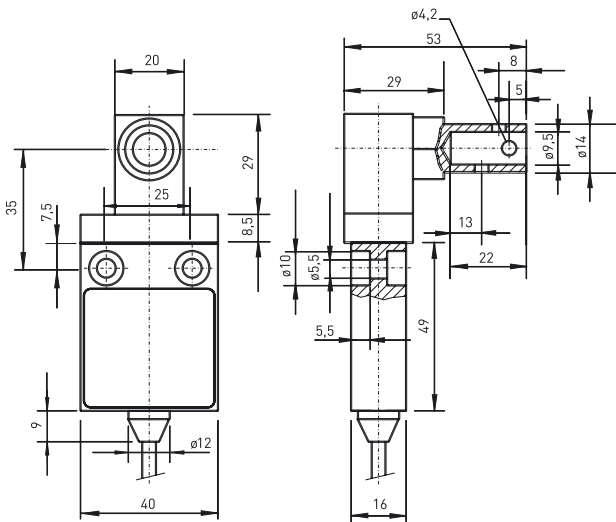
Features/Options

- Thermoplastic enclosure
- Double insulated \square
- Slow action \ominus , change-over contact with double break
- Slow action with overlapping contacts available
- Version with cable on left-hand side available
- With pre-wired cable, cable length 1 meter
- Ex-version available
- With gold-plated contacts available on request
- Shaft bore \varnothing 10 mm available
- Max. 3 contacts
- Version with 3 contacts has cable on left-hand side

Technical data

Standards	IEC/EN 60947-5-1; EN 1088; BG-GS-ET-15
Enclosure	glass-fibre reinforced, shock-proof thermo plastic, self-extinguishing UL 94-V0
Actuator	stainless steel 1. 4301
Protection class	IP 67 to EN 60529
Contact material	silver
Switching system	slow action, positive break NC contact \ominus
Switching elements	change-over contact with double break Zb or 2 NC contacts, galvanically separated contact bridges
Termination	cable H05VV-F
Cable section	4 x 0.75 mm ²
U_{imp}	4 kV
U_i	250 V
I_{the}	6 A
I_e/U_e	6 A/250 VAC; 4 A/24 VDC
Utilisation category	AC-15, DC-13
Max. fuse rating	6 A gL/gG D-fuse
Ambient temperature	-20 °C ... +75 °C
Mechanical life	> 1 million operations

// ES 13 SB

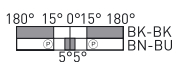


Contact variants: switch travel/contacts

Slow action

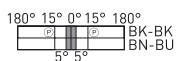
1 NC / 1 NO contact

ES 13 SB 1Ö/1S



2 NC contacts

ES 13 SB 2Ö



Ordering details

ES 13 SB 1Ö/1S-s-1m

- ES 13 SB 1Ö/1S-s-1m
- Cable length 1 m, (2 m, 5 m, 10 m)
- Cable on side
- Contact type 1NC/1NO (2Ö/1S, 2S/1Ö)
- Actuator SB
- Series
- S Slow action

Safety switches for hinged guard doors

// Series ES 95 SB



Features/Options

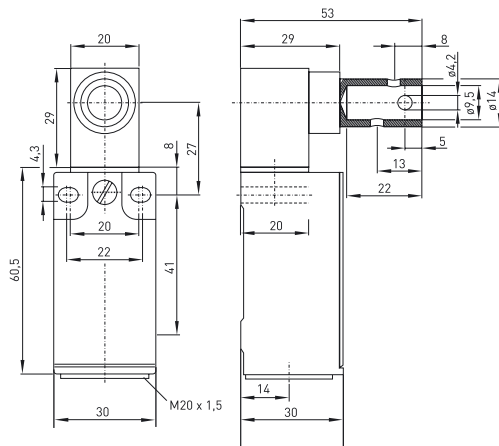
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- Double insulated \square
- Slow action \ominus , change-over contact with double break
- Cable entry M20 x 1.5
- Wiring compartment
- Ex-version available
- With gold-plated contacts available on request
- Mounting details to EN 50 047
- Horizontal mounting slots
- Actuator heads can be repositioned in 4 x 90° steps
- Shaft bore \varnothing 10 mm available

// ES 95 SB

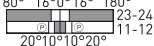
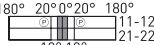
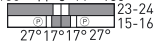


Technical data

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Approvals	 



Contact variants: switch travel/contacts

	Slow action
1 NC / 1 NO contact	ES 95 SB 10/1S 180° 16°0°16° 180°  23-24 11-12 20°10°10°20°
2 NC contacts	ES 95 SB 20 180° 20°0°20° 180°  11-12 21-22 10° 10°
1 NC / 1 NO contact with overlapping	ES 95 SB UE 180° 11°0°11° 180°  23-24 15-16 27°17°17°27°

Ordering details

ES 95 SB 10/1S

Contact type 1NC/1NO, (2Ö, UE)
 Actuator SB
 Series
 S Slow action