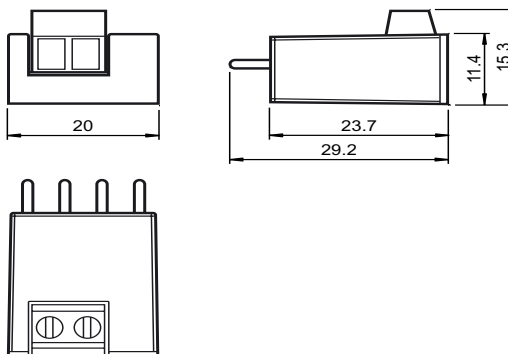




SafeBox



**Dimensions**



**Model Number**

**IF-SB4-01**

Interface for SafeBox SB4 modules  
4CP and 4C

**Technical data**

**General specifications**

Approvals	TÜV; cNRTLus
Tests	IEC/EN 61496 , EN ISO 13849
Safety type according to IEC/EN 61496	4
Safety Integrity Level (SIL)	3
MTTF <sub>d</sub>	18000 years
PFH <sub>d</sub>	6.2 E-10 /h
Performance level (PL)	PL e
Marking	CE

**Input**

actuating voltage	ON: 24 V DC + 20 %/- 30 %; OFF: < 1 V
Activation current	max. 15 mA
Input type	PNP OSSD signals from photoelectric safety sensors

**Output**

Signal output	on SB4 modules 4CP or 4C
Switching current	min. 7.5 mA
Response time	3 ms

**Ambient conditions**

Ambient temperature	0 ... 50 °C (273 ... 323 K)
Storage temperature	-20 ... 70 °C (253 ... 343 K)

**Mechanical specifications**

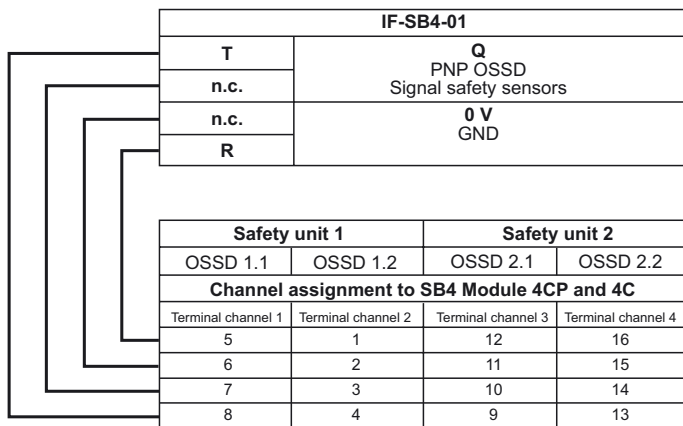
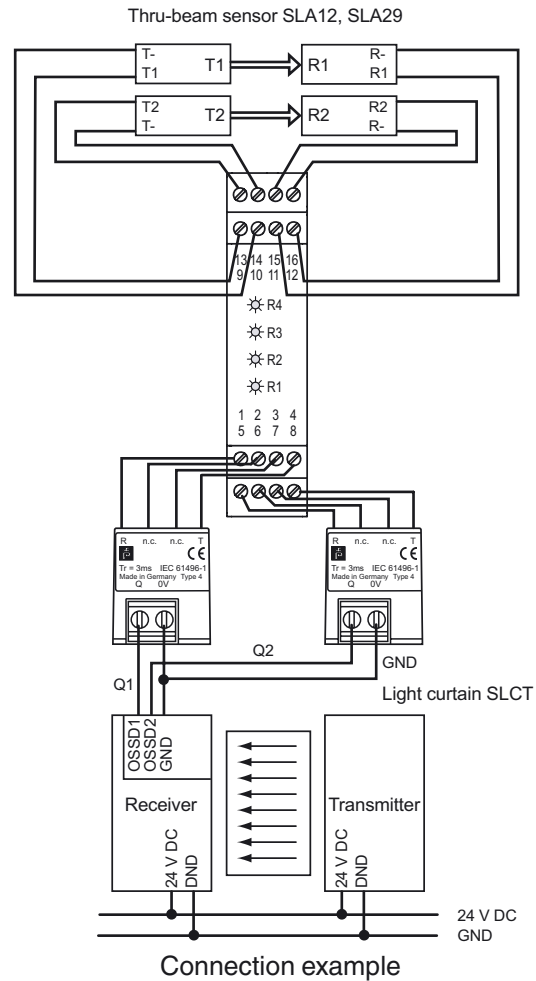
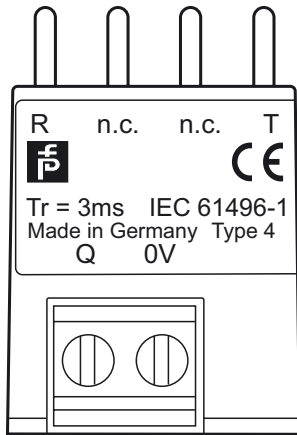
Protection degree	IP20
Connection	screw terminals , lead cross section 0.2 ... 1,5 mm <sup>2</sup>
Material	
Housing	ABS
Mass	approx. 10 g

**General information**

Ordering information	For the connection are always two IF-SB4-01 is required
----------------------	---

Release date: 2009-08-04 09:51 Date of issue: 2009-08-04 21:30:03\_ENG.xml

**Electrical connection**



IF-SB4-01 is operated on a safety control interface unit type SafeBox SB4 on the modules SB4, 4CP, and 4C.

Please note the operating instructions for the SafeBox.

**Function**

IF-SB4-01 enables the use of Photoelectric Safety Sensors with semiconductor output on the SafeBox modules:

- SB4 modules 4CP
- SB4 modules 4C

The task of the interface is to filter test pulses for cross-wire monitoring from the sensor at the connection cable between the semi-conductor outputs and inputs on the SafeBox module.



**Note!**

If a safety device with PNP outputs is connected to SafeBox "SB4 Modules 4CP" or "SB4 Modules 4C" using the IF-SB4-01, then care must be taken to ensure that the line discharges after each pulse within 200 µs. PNP outputs, whose output drivers are constructed as a Push-Pull step, are particularly suitable for this purpose.

**Operating mode setting on the SB4-4CP and SB4-4C modules**

There are 4 DIP switches on the assembly group of the SB4 modules 4CP and SB4 modules 4C. When using IF-SB4-01, the functionality of the simultaneous evaluation of neighboring channels (1 and 2, 3 and 4) has to be selected. 2 switches always have to be actuated for the function selection.



**Note!**

For correct simultaneous monitoring of the SB4 modules 4CP and SB4 modules 4C outputs, the connection of the PNP OSSD outputs must be made in pairs to the channel pair 1 and 2 or 3 and 4.

The position and operation of the DIP switches of the SB4 modules 4CP and SB4 modules 4C are given in the data sheet and the SafeBox operating instructions.