

# TECH BRIEF: SFB - SAFETY FIELD BOX



The SFB safety field box allows simple plug-and-play installation of up to eight safety devices per box, with interface for higher end field bus. It is available for PROFINET with PROFIsafe, EtherNet/IP with CIP Safety, or EtherCAT with FSoE fieldbus protocols.

Thanks to its universal device interface with an 8-pole M12 connector, it can be used to connect a wide variety of safety devices: electronic and electro-mechanical safety interlocks, switches, sensors, light curtains and operation panels. Schmersal also has a specific fieldbus version of our BDF200 control panel that can be connected, featuring Emergency Stop and 3 additional machine controls. Series wire up to 10 field boxes back to a single field bus control module and power source.

The signals are transmitted for evaluation to the safety controller via the safety fieldbus interface. This communication is safe against modifications, changes to the telegram sequence, transmission errors, etc. Parallel transmission of safety signals enables free evaluation of safety switchgear devices in the safety controller.

All device connections also feature a self-resetting fuse element to protect lines. After eliminating an overcurrent in a connection, the fuse element resets itself after a brief cool-down period.

## Features

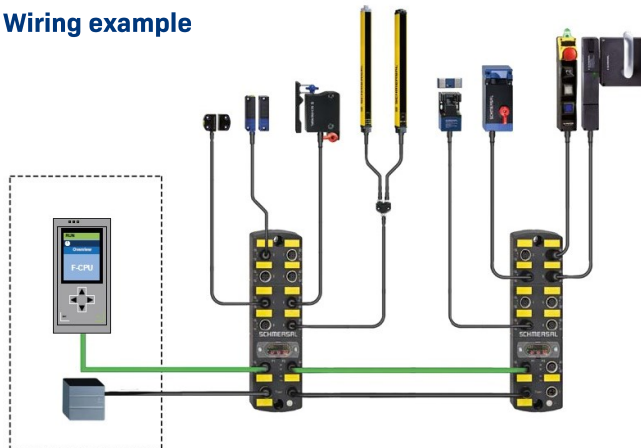
- Cost-effective machine wiring
- Smooth and fail-safe installation
- Connect up to 8 safety devices per field box
  - mix different types of switches
  - up to 4 control panels (with E-Stop)
- Series chain up to 10 safety field boxes



## Compatible with:



## Wiring example



## Ordering Details

### SFB-①-8M12-IOP

① field bus:

PN-IRT	ProfiNet
EIP	EtherNet/IP
EC	EtherCat

### Cables

#### Main Power Cable (M12)

- 103013430 (5.0m, 4-pole, T-code)
- 103013431 (10.0m, 4-pole, T-code)

#### SFB to SFB Power Cable (M12)

- 103025138 (0.5 m, 4-pole, T-code)
- 103025136 (1.5 m, 4-pole, T-code)
- 103013432 (3.0 m, 4-pole, T-code)
- 103013433 (5.0 m, 4-pole, T-code)
- 103013434 (7.5 m, 4-pole, T-code)

#### Ethernet cables

- 103013435 (5.0 m, RJ45 to M12)
- 103013436 (7.5 m, RJ45 to M12)
- 103013437 (10.0 m, RJ45 to M12)

- 103013438 (3.0 m, 4 pole, D-code)
- 103013439 (5.0 m, 4 pole, D-code)
- 103013440 (7.5 m, 4 pole, D-code)

#### Device to SFB Cable (M12)

- 101217786 (0.5 m, 8-pole, A-code)
- 101217787 (1.0 m, 8-pole, A-code)
- 101217788 (1.5 m, 8-pole, A-code)
- 101217789 (2.5 m, 8-pole, A-code)
- 103013428 (3.5 m, 8-pole, A-code)
- 101217790 (5.0 m, 8-pole, A-code)
- 103013429 (7.5 m, 8-pole, A-code)

#### 4 pole to 8 pole connectors

- 103032864 (2.5 m)
- 103032865 (5.0 m)

#### Y adaptor (for SLC)

- 103032867 (for SLC440)
- 103032866 (for SLC440COM)

#### Accessories

- ACC-PFB-SFB-LAB-SN-20PCS  
Labels (yellow)
- ACC-PFB-SFB-M12-PCAP-10PCS  
Protective caps for unused ports
- ACC-PFB-SFB-SLLAB-4PCS  
Adhesive seal

#### Special Versions for SFB

- Control panels:**  
(prewired with M12 connector)
- BDF200-FB-NH-LT-LT-LT-2875
  - BDF200-FB-NHK-WS20-LTBU-LTBU-G24
- Additional versions available