

SCHMERSAL Tech Briefs: SFB Safety Field Box for PROFINET/PROFIsafe



Overview

The SFB is a safety field box for PROFINET/PROFIsafe systems which allows simple plug-and-play installation of up to eight safety devices.

Thanks to its universal device interface with an M12, 8-pole 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. Field box device connections can also be configured to link different devices, thus providing maximum flexibility in the conceptual design of safety solutions.

The safety signals from connected safety devices are forwarded to a safety controller for evaluation via the secure PROFINET/PROFIsafe field bus interface. PROFIsafe is the functionally safe extension to standard communication via PROFINET. PROFIsafe-based communication is protected against alteration, transmission errors, changes in the telegram sequence and similar. Parallel transmission of safety signals allows safety devices to be freely linked 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

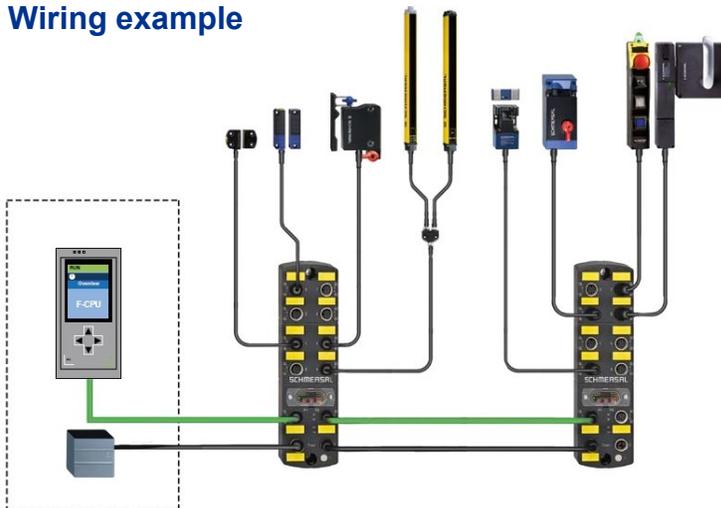


Available Literature



Safety Fieldbox
4 pages

Wiring example



Ordering Details

SFB-PN-IRT-8M12-IOP

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**

Bold part numbers are regularly stocked

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