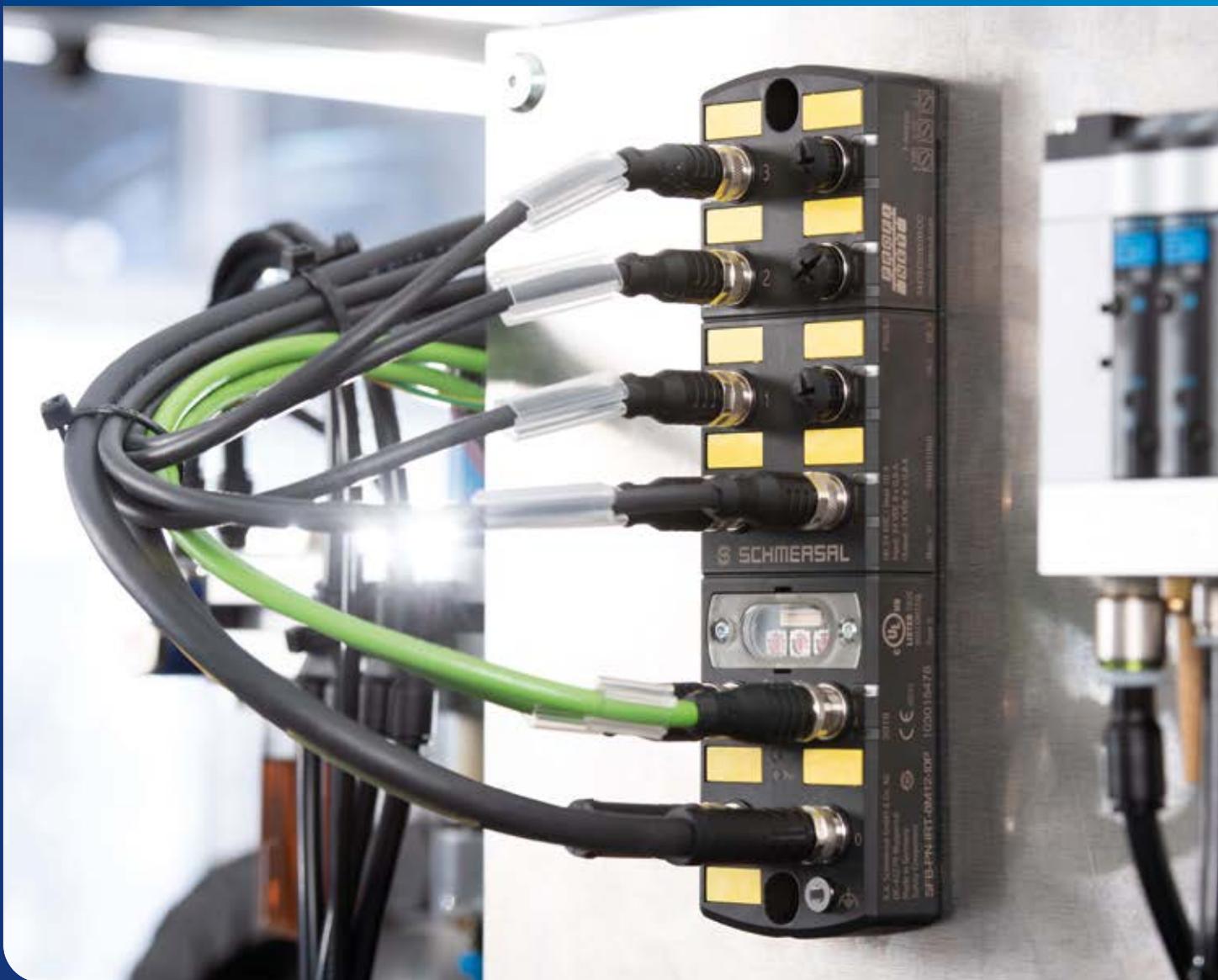


Safety in system  
Protection for man and machine

# SAFETY FIELDBOX PN / EIP / EC

UNIVERSAL. SAFE.  
COST EFFECTIVE.



# SAFETY FIELDBOX PN / EIP / EC

## UNIVERSAL. SAFE. COST EFFECTIVE.

### Device ports

8 x connectors M12, 8-pole

### LED diagnostic

Extended status indication of the safety switchgear

### Communication

PROFINET / PROFI-safe (PN)  
EtherNet/IP / CIP-Safety (EIP)  
EtherCAT / FSoE (EC)

### Power supply

M12 power connector with 10 A

### Signal assignment

- 2 x F-DI: 2-channel safety input
- 1 x F-DQ: Safety output, internal 2-channel
- 1 x DI: Digital input for diagnostic signal
- 2 x DQ test pulse: 2 test pulse outputs for NC contacts
- 24V and GND: Power supply of the connected safety switchgear

### LED diagnostic

Extended status indication of the safety fieldbox

### Flexible application options

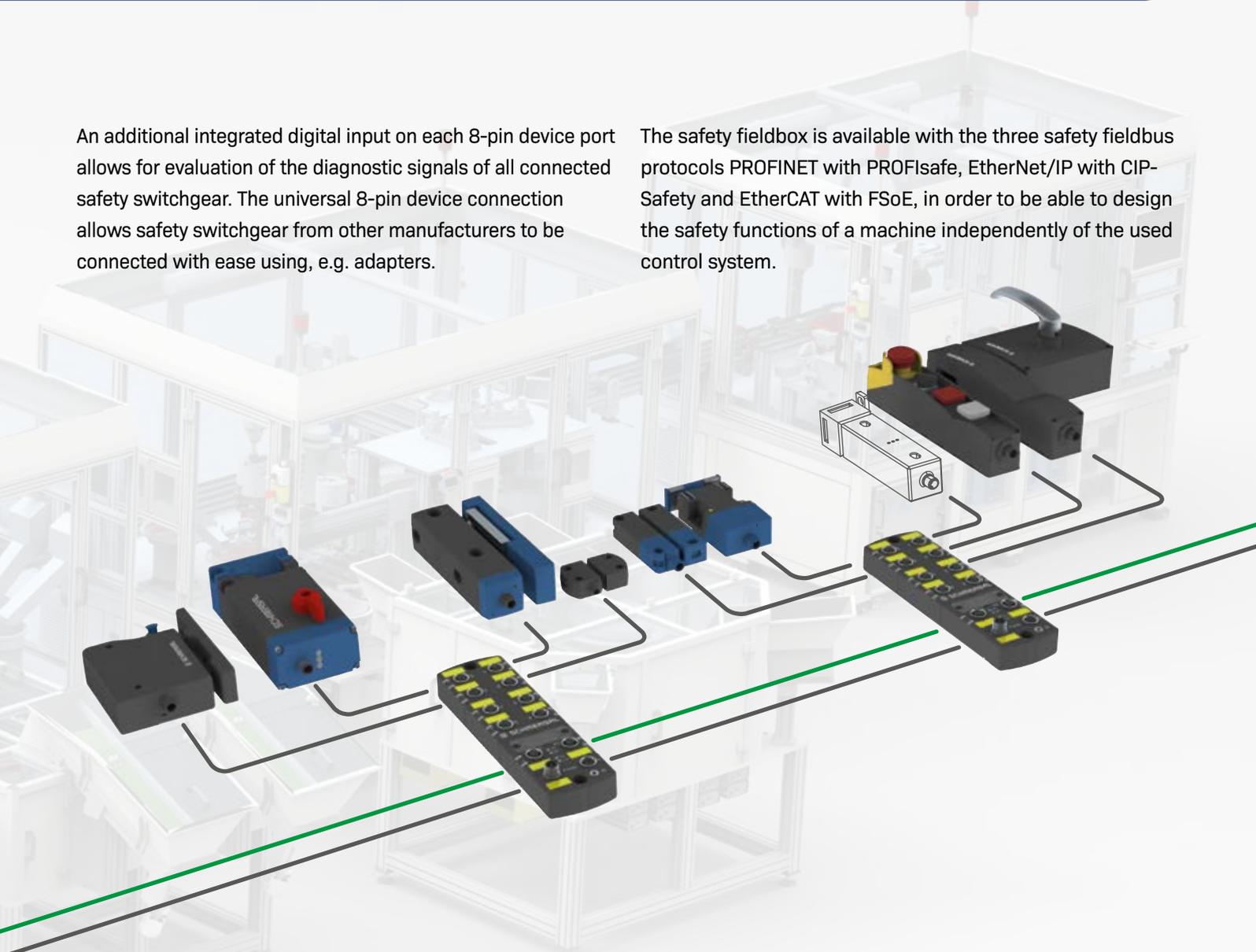
The safety fieldbox allows for simple connection of up to eight safety switchgear devices with Plug and Play. The universal device interfaces for 8-pole M12 connectors allow for connection of a wide range of safety switchgear devices, including electronic and electromechanical solenoid interlocks, sensors, control panels, light curtains and switches. The version for 8-pole connectors enables connection of 2 safety inputs, 2 test pulse outputs, 1 safety output (internal 2-channel), 1 digital input for diagnostic signals as well as the

power supply to connected safety switchgear devices. This enables transmission of locking device activation signals on solenoid interlocks, alongside safety signals and diagnostic signals. 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.



An additional integrated digital input on each 8-pin device port allows for evaluation of the diagnostic signals of all connected safety switchgear. The universal 8-pin device connection allows safety switchgear from other manufacturers to be connected with ease using, e.g. adapters.

The safety fieldbox is available with the three safety fieldbus protocols PROFINET with PROFI-safe, EtherNet/IP with CIP-Safety and EtherCAT with FSoE, in order to be able to design the safety functions of a machine independently of the used control system.



### Your benefits at a glance

- Universal 8-pole device ports
- Smooth and fail-safe installation
- Cost-effective machine wiring
- Rapid installation with Plug and Play

### Technical highlights

- 8 different safety switchgear connectable
- 4 control panels (with EMERGENCY STOP) connectable
- Power supply via M12 power plug connection with 10 A
- Fail-safe communication via the following fieldbuses:



# SAFETY FIELDBOX PN / EIP / EC

## THREE VARIANTS FOR THREE FIELD BUS SYSTEMS



SFB-PN-IRT-8M12-IOP-V2  
Part no.: 103040357



SFB-EIP-8M12-IOP  
Part no.: 103015480



SFB-EC-8M12-IOP  
Part no.: 103047531



### Technical features

General technical data	
Standards	EN 61131-1, EN 61131-2, IEC 60947-5-3, ISO 13849-1, IEC 61508
Ambient temperature	-20 °C ... +55 °C
Degree of protection	IP67 / IP67
Supply voltage $U_b$	24 VDC -15% / +10%
Operating current $I_b$	10 A
Field bus interface	
Integrated switch	Dual Port, 100 Mbit/s
Service interface	WEB-Interface HTTP
Safety values	
2-channel safety inputs	PL e, Category 4, SIL 3
1-channel safety inputs	PL c, Category 1, SIL 1
Safety outputs 1 cable	PL d, Category 3, SIL 2
Safety outputs 2 cables	PL e, Category 4, SIL 3



x.000 / L+W / 06.2023 / Teile-Nr. 103035521 / EN / Ausgabe 04



**SCHMERSAL**  
THE DNA OF SAFETY