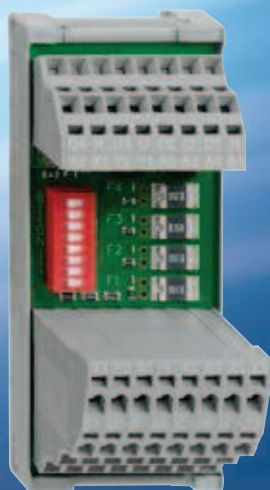


# Safety in system: Protection for man and machine

Innovations 2016/2017

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**SCHMERSAL**

Safe solutions for your industry

# Schmersal Safety Installation Systems – The right solution for every application

The new Schmersal Safety Installation System provides machine designers and maintenance personnel a simple approach to complex wiring requirements while minimizing wiring errors leading to cost reduction and minimized downtime.

## Three alternatives for optimum personal and production safety

- With the passive distribution module (PDM) or the passive field box (PFB), mixed series connections are possible with up to four different electronic safety sensors and solenoid interlocks. With the PDM and PFB, larger systems can be constructed thanks to the cascading capability. Wire cross sections of up to 1.5 mm<sup>2</sup> reduce voltage drops in the supply cables. The internal auto-reset fuses for each safety interlock saves the mandated individual fuse when the wire cross section is reduced.
- Aside from standard I/O devices, an option also exists to connect safety sensors and interlocks with serial diagnosis. Comprehensive diagnostic data can be transferred to a control system via the SD-gateway by means of series diagnostics. Once the specific information has been transmitted the data can be visualized through the machine HMI.

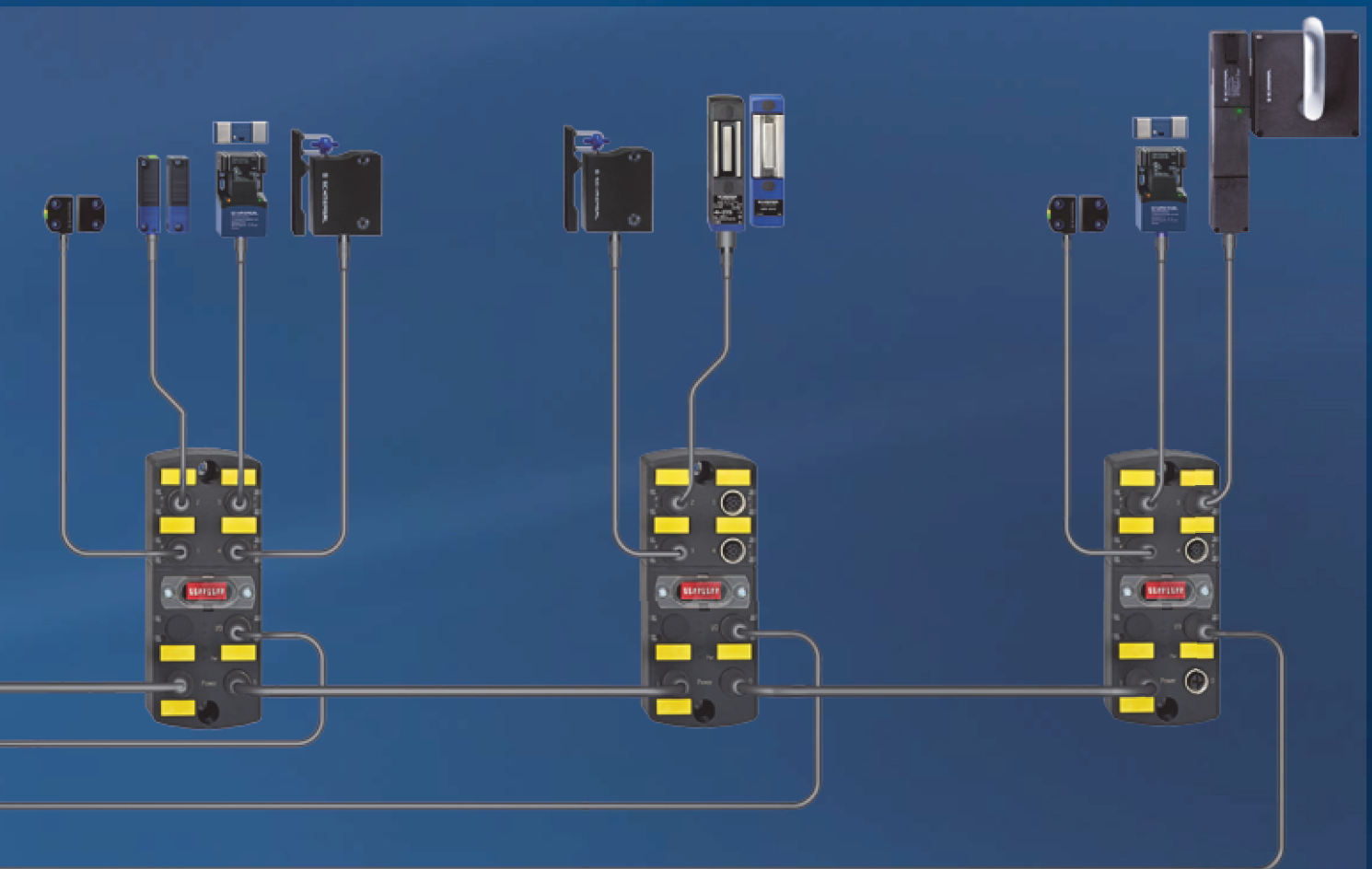
Example: passive field boxes for parallel IO wiring (PFB-IOP)



- The new safe input expander module SRB-E-PE can have not only electromechanical safety switches with dry contact outputs connected to it but also electronic safety sensors with OSSD outputs. For larger systems, the input expander SRB-E-PE can be connected in series.

With all three solutions, individual diagnosis of the connected safety switchgear is possible. With the passive installation systems, actuation of the solenoid interlocks connected in series is also possible. This feature provides the user with a clear indication of which switch in series has triggered a signal.

For maintenance purposes the safety installation system offers the user the ability to troubleshoot easily and quickly, helping avoid costly machine downtime. As such, the safety installation systems from Schmersal contribute towards increased availability of the machines.



# The three versions of the Schmersal Safety Installation Systems at a glance



## **Passive field box PFB: For versatile industrial use**

The passive field box PFB is a plug & play solution for multiple areas of applications.

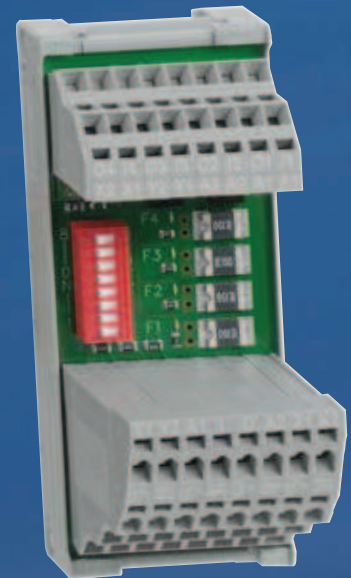
- Voltage supply via new M12 power connector
- Robust IP67 version for installation in the field
- Compact field box with dimensions 63 mm x 156 mm



**Passive distribution module PDM:  
For hygiene-sensitive applications**

The passive distribution module PDM is small and compact, can be mounted easily in existing terminal boxes and is especially suitable for higher demands in hygiene with food and packaging machines.

- Can be configured easily via DIP switches
- Spring-type terminals for simple and low-cost installation
- Compact design with a width of only 45 mm on the profile rail



**Active input expander module SRB-E-PE:  
For all common safety switchgear**

The active input expander modules SRB-E-PE are used for safe series connection of electromechanical switches and sensors to contact outputs or electronic OSSD outputs. The safety relay module SRB-E-PE can be configured multifunctionally for up to 9 different applications.

- Function settings can be configured easily via rotary knob switches
- Removable screw-type or spring-type terminals
- Compact module with a width of just 22.5 mm on the profile rail
- Suitable for applications up to Cat. 4 / PL e / SIL 3

