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## Safely in series

Schmersal has launched a new safety installation system.

Computer&AUTOMATION interviewed Udo Weber, Safety Technology Product Manager.

**Mr Weber, what was the motivation for the development of the new safety installation system presented by Schmersal at SPS IPC Drives recently?**

**Weber:** When it comes to the installation of safety switchgear to machines and systems, the market demands wiring solutions which are as simple, fault-proof and cost-effective as possible. The new passive installation systems support the user in series connection of different safety switchgear units, such as safety sensors or solenoid interlocks within larger safety functions.

What makes the new systems special is the individual securing of each device connection with a self-resetting fuse. This means considerably larger systems can be achieved than before, because the voltage chain to a device chain with a conductor cross section of 1.5 mm<sup>2</sup> can be designed and fused at 10 Amperes. The individual fusing also solves the problem of circuit breaking in larger systems with different conductor cross sections in the installation.

**What exactly does the new system consist of?**

**Weber:** The product portfolio splits into the passive PDM distributor as a DIN rail module for installation in the control cabinet or terminal boxes and the PFB version as a robust IP67 field box, plus the SRB-E-PE active input expansion. The built-in electronics means there is no reduction in the level of diagnostics coverage. The PLe are therefore retained even for the series connection of contacts. As well as safety switches and sensors with contact outputs, switches and sensors with electronic OSSD outputs can also be connected to the SRB-E-PE.

**Schmersal launched the SD interface around ten years ago for transferring data for electronic safety switchgear connected in series - how does this relate to your new system?**

**Weber:** The passive distributor systems are also available in a version with an SD interface, which considerably increases the potential applications of these systems. However, the SD interface and comparable systems previously needed multiple feed and fusing of the voltage supply for larger system with multiple safety switchgear devices. Now a single voltage supply is sufficient for systems with power consumption of up to 10 amperes. This makes installation considerably easier and more cost-effective.

**Why is there still a need for proprietary solutions like your new installation system or the SD interface, when there are now established standards for safe sensor/ actuator communication, such as the AS interface?**

**Weber:** Where users do not wish to use a bus system at the sensor/actuator level, systems like the SD interface offer a simple installation solution for series connection for small and medium sized machines which also offers a series of the benefits mentioned above. Despite this, we also have the established standards in the range - most notably safety switchgear with an AS interface.



**Udo Weber, Schmersal:** "Our new solution will make installing safety switchgear considerably easier and more cost-effective."

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