Combining Signals. Creating Safety.

Integrating safe inputs/outputs and non-safe IO-Link signals through a single module.

PROFIsafe and
CIP Safety I/O Modules



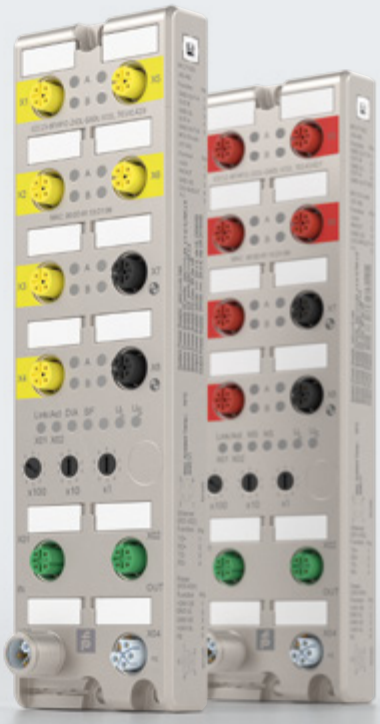
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PROFIsafe and CIP Safety I/O Modules

Standard and Safety Seamlessly Combined

Safe I/Os and standard IO-Link signals in a single module: The new PROFIsafe and CIP Safety I/O modules combine functional safety up to SIL 3, PL e, Cat. 4 with intelligent, IIoT-enabled IO-Link ports in a single device. This allows safety-related and standard signals to be efficiently integrated into modern machine and plant designs—flexibly, future-ready, and with significantly reduced wiring and installation effort.



Functional Safety and Standard Communication Intelligently Combined

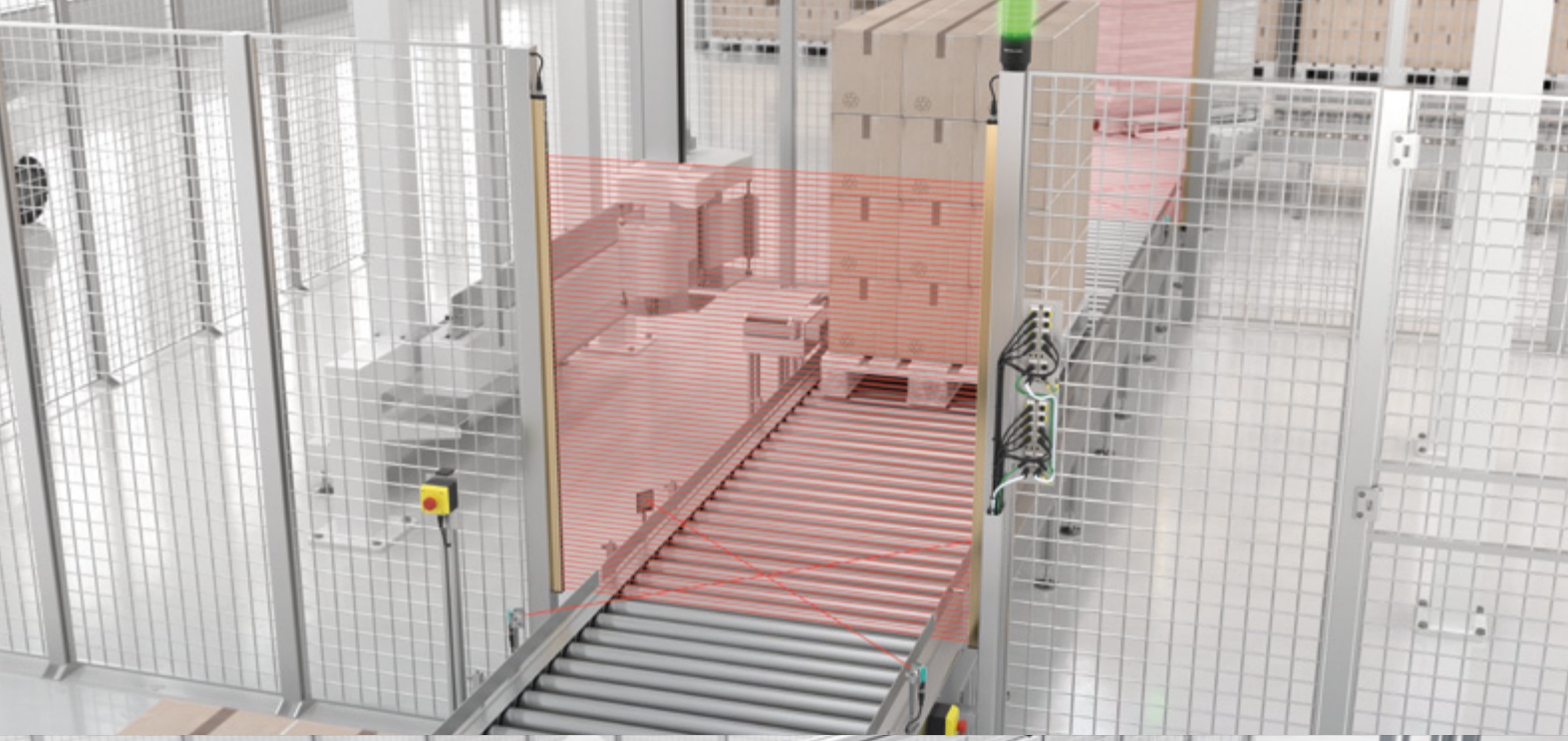
The new PROFIsafe and CIP Safety I/O modules enable the connection of safety-related sensors, actuators, and passive safety components, such as emergency stop buttons, to industrial Ethernet networks. Safe inputs and outputs, as well as standard IO-Link ports, are combined in a single field module. This reduces the number of components required, simplifies the machine architecture, and enables the seamless integration of safety and standard communication over a single network. Especially in modular machine designs, this combination allows for maximum flexibility and significantly reduces engineering and wiring effort.

Safe Applications for People, Machines, and Equipment

These modules provide reliable safety protection for a wide variety of industrial applications, including those for warehousing, conveyor technology, and the automotive industry. Typical areas of application include workstations at rotary tables, robot cells, or machining centers such as CNC machines, where people and machines work closely together. Safety functions, such as emergency stop, door monitoring, and safe position detection, can be efficiently integrated and flexibly adapted to unique machine designs.

By combining functional safety, standard communication, and IIoT capability, the modules lay the foundation for modern, networked, and scalable automation solutions.

For more information, visit
pepperl-fuchs.com/pf-safeIO







IIoT-Ready: Safety Meets Data Intelligence

Using PROFIsafe or CIP Safety, the modules reliably transmit safe and non-safe data over established industrial Ethernet networks. At the same time, the integrated IO-Link ports support modern IIoT communication via OPC UA, MQTT, REST, and CoAP.

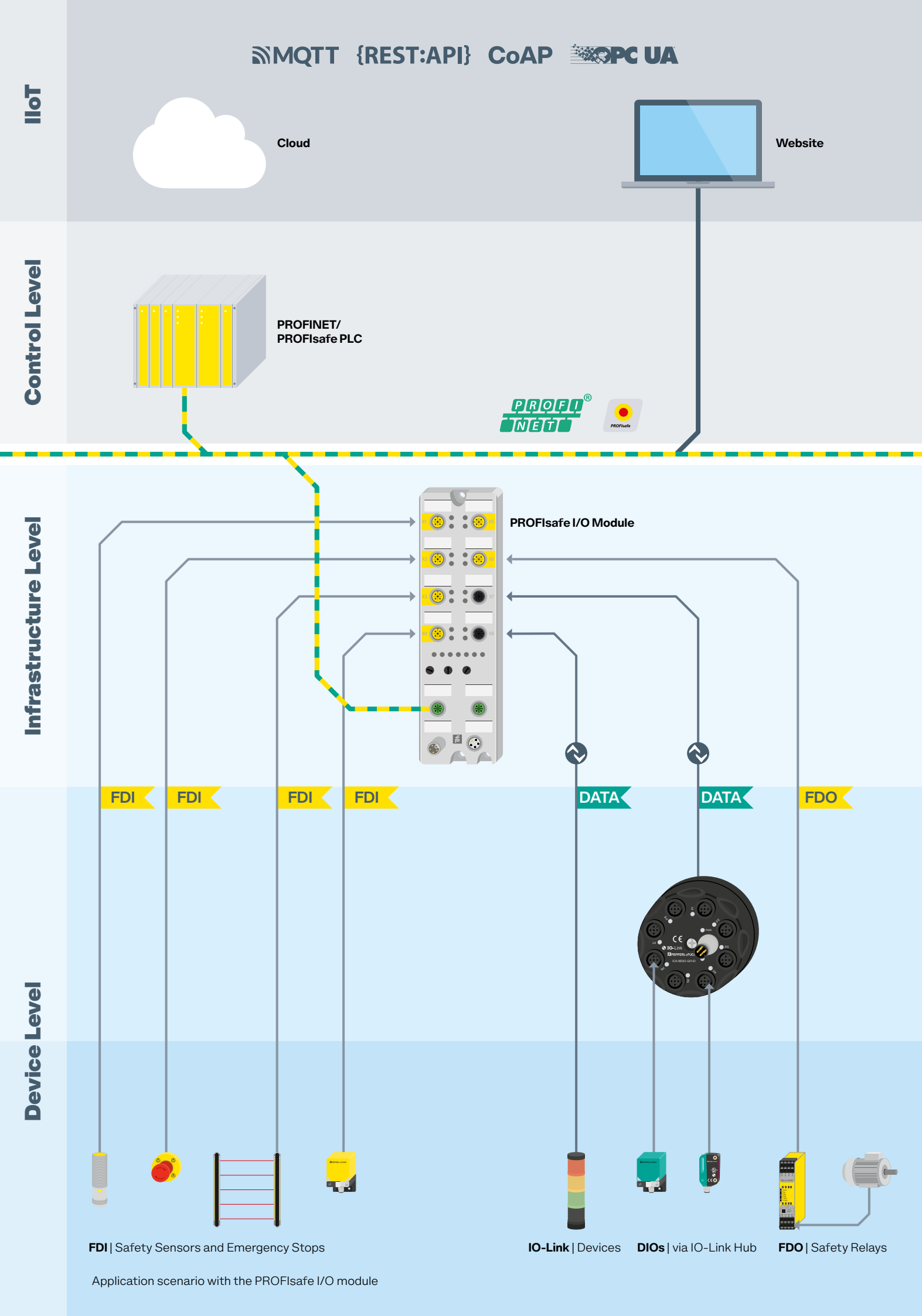
This allows for the implementation of direct cloud and edge communication concepts in addition to the traditional control level. Status data from intelligent IO-Link devices is available in real time for condition monitoring, diagnostic functions, and predictive maintenance applications.

The modules also feature a robust die-cast zinc housing with IP65/IP67/IP69K degree of protection and L-coded M12 power connectors. This ensures the devices are reliably protected against shock, vibration, moisture, and dirt, guaranteeing safe operation even under demanding industrial conditions.

Excerpt of Technical Data	ICE13-8FI4FO-2IOL-G60L-V1D	ICE12-8FI4FO-2IOL-G60L-V1D
Fieldbus interface	PROFINET with PROFIsafe	EtherNet/IP with CIP Safety
Fail-safe digital inputs	8/4	
Fail-safe digital outputs	4/2	
Others	2 IO-Link class A master ports	
IoT protocols	OPC UA, MQTT, CoAP, REST	
Power supply	M12 L-coded	
Certifications	FS TÜV (IEC 61508, ISO 13849) cULus Listed, UL 61010-1, CSA, PNO, IO-Link 1.1.4	
SIL/PL	Up to SIL 3, PL e, Cat. 4	
Degree of protection	IP65, IP67, IP69K	

Highlights

- Flexibility for modular safety applications: Safe inputs/outputs and non-safe IO-Link ports in one module
- Seamless IIoT integration of IO-Link ports: Supports OPC UA, MQTT, REST, and CoAP—for edge-to-cloud communication and applicable smart processes
- Certified safety: Up to SIL 3, PL e, Cat. 4 and cULus listed for the highest safety requirements and full compliance with all required standards
- Rugged and durable: IP65/IP67/IP69K degree of protection and weld-resistant die cast zinc housing, ideal for harsh industrial environments
- One network for standard and safety: PROFINET with PROFIsafe or EtherNet/IP with CIP Safety over a single Ethernet cable simplifies installation



Application scenario with the PROFIsafe I/O module

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- Industrial Sensors
- Industrial Communication and Interfaces
- Enterprise Mobility
- Hazardous Area Products and Solutions

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