

**Providing flexibility.
Simplifying integration.
Opening communication channels.**

RFID Read/Write Heads with IO-Link



Plug-and-Play RFID Solutions

RFID read/write heads with IO-Link offer simplicity and flexibility. With auto-start functionality, they simplify integration dramatically. Combining our Ethernet IO-Link master with the new RFID read/write heads, Pepperl+Fuchs offers a complete, flexible identification solution.

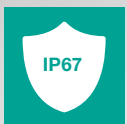
Industry 4.0 Identification with IO-Link

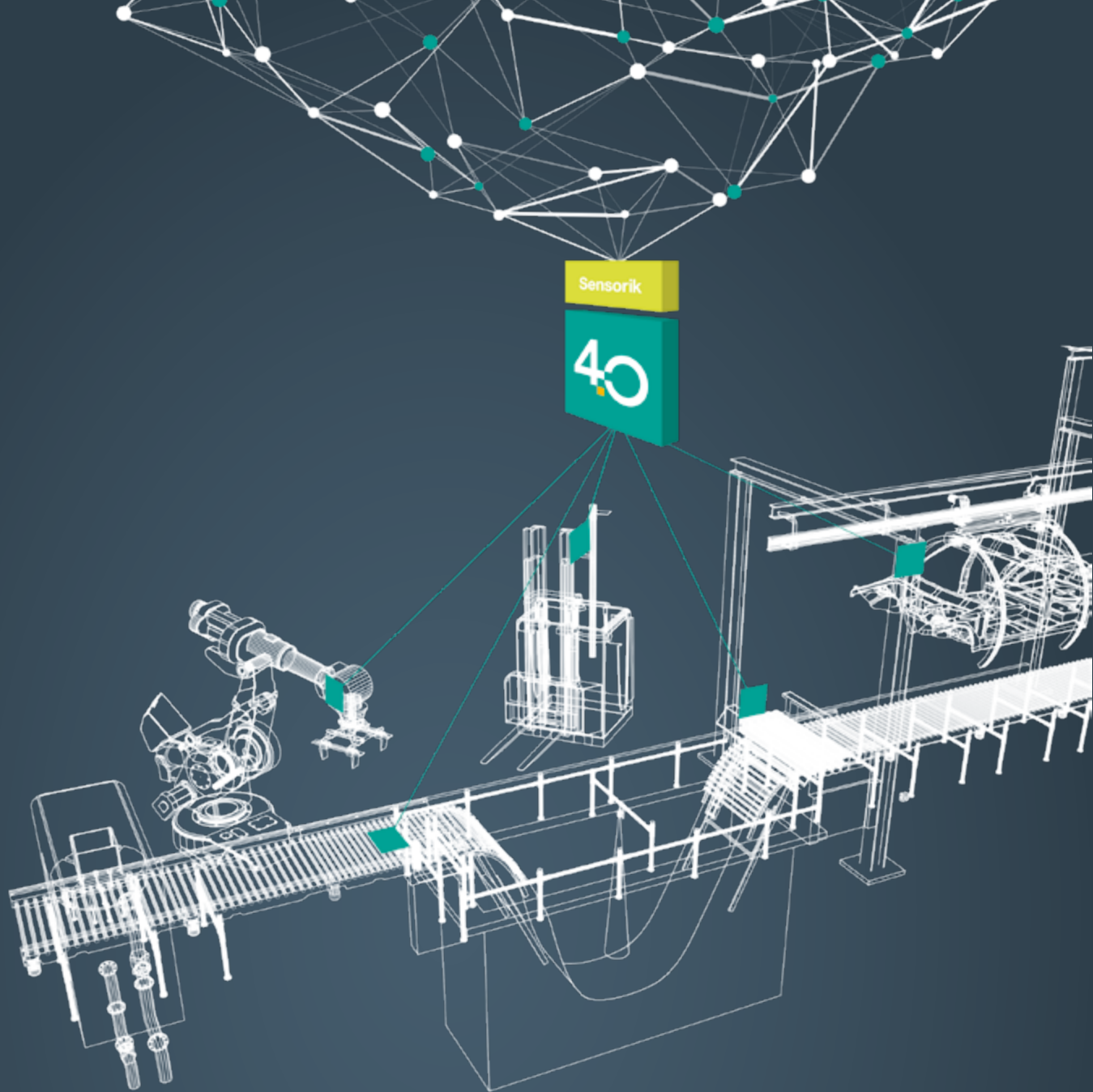
RFID is a key technology for Industry 4.0. With new RFID read/write heads, Pepperl+Fuchs is expanding its IO-Link portfolio and taking another step toward efficient industrial networking. These devices offer an IO-Link interface (V1.1) in accordance with the international standard IEC 61131-9.

IO-Link enables easy and cost-effective integration of read data into higher-level networks. Access down to the sensor/actuator opens up new possibilities for diagnostics, laying the foundation for future-proof automation.

Highlights

- Standardized IO-Link interface unlocks the potential of Industry 4.0
- Easy mode reduces complexity without compromising performance
- System standardization with multi-protocol support for most common bus systems
- Flexible and efficient solution enables IO-Link read/write heads to be combined with other devices on Ethernet IO-Link master
- Complete system from a single source: read/write heads, tags, and Ethernet IO-Link master





Industry 4.0: New Challenges for Automation

Envisioning factories of the future, Industry 4.0 presents the automation industry with new challenges. It creates a scenario of fully networked production systems that exchange data not only horizontally within the production processes but also vertically up to higher-level information systems such as MES or ERP—or even beyond company boundaries.

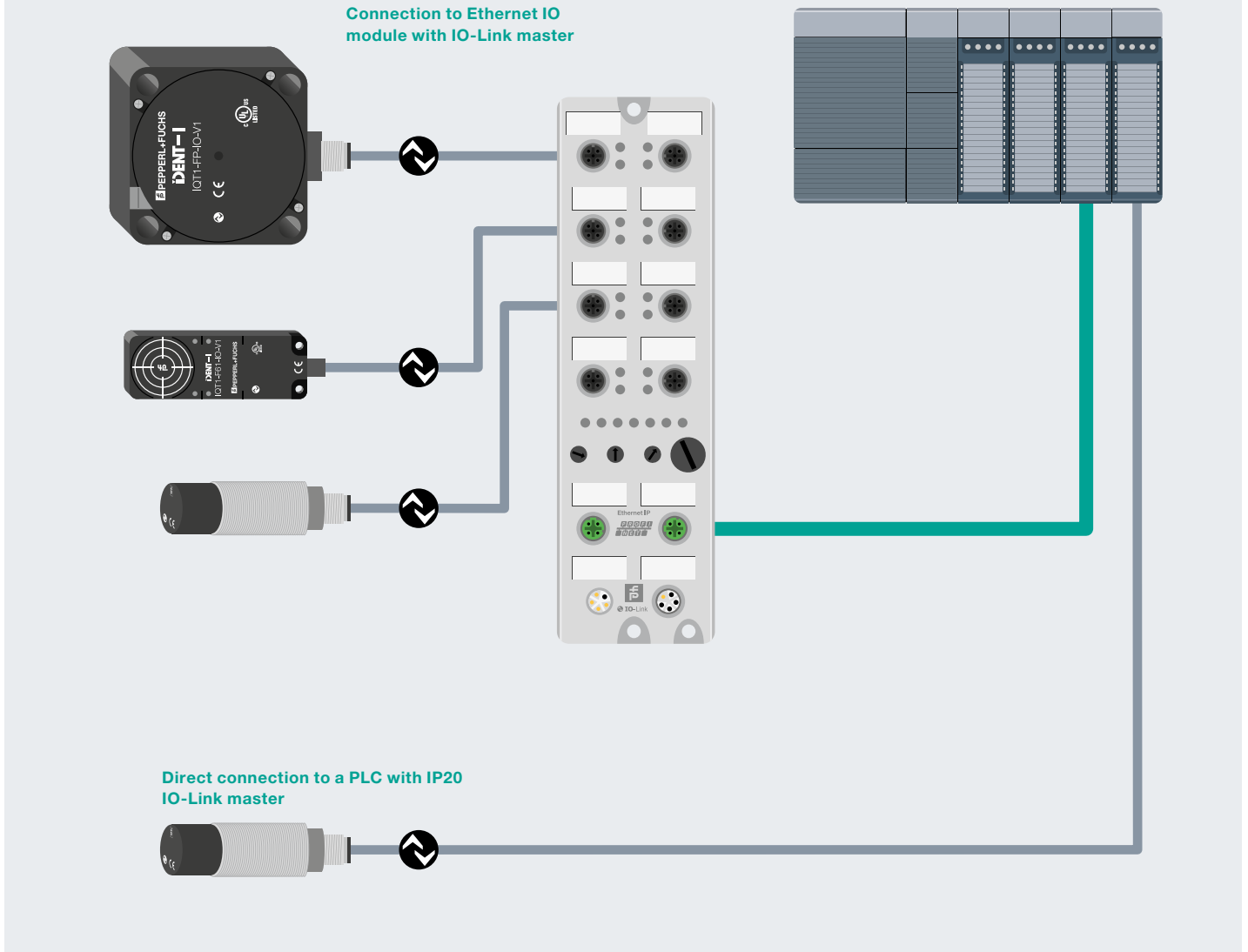
While this scenario enables communication at any time between any subscriber and at any hierarchy level, the current status of many factories continues to be traditional machine communication at the control level. It is for these companies that Pepperl+Fuchs is developing sensor solutions that are paving the way for the innovations of Industry 4.0.

Sensorik4.0®: Communication-Ready Sensors for Industry 4.0 Applications

Fully networked production systems require a communication-ready sensor technology that would allow sensor data to be transferred effectively. Such communication-ready sensors are a key feature of Sensorik4.0®: Under this label, Pepperl+Fuchs is providing a new generation of innovative sensor solutions for use in Industry 4.0 scenarios.



For more information on Sensorik4.0®, visit
www.pepperl-fuchs.com/pf-sensorik40



Connectivity options for the RFID read/write heads with IO-Link

Flexible System Integration

RFID IO-Link read/write heads operate in the HF range according to ISO 15693 and offer a read/write range of up to 13 cm. The housing designs are rugged and compact, ideal for use in harsh industrial environments.

A standardized IO-Link interface enables connectivity to most common bus systems. The new RFID components can be easily connected to a PLC with integrated IO-Link master or to any IO-Link master on the market. For this purpose, Pepperl+Fuchs' Ethernet IO-Link master (ICE1-8IOL-G60L-V1) offers optimal connectivity and consistent configuration. The ability to connect up to eight IO-Link devices reduces costs per channel and makes data transfer more efficient.

Complete System Solution from a Single Source

The new RFID read/write heads come in three housing sizes. Each has unique advantages based on your application needs. A complete solution of RFID components and Ethernet IO modules streamlines communication between all levels of automation, paving the way for Industry 4.0 and Sensorik4.0® applications.

Pepperl+Fuchs provides a complete system solution, perfectly matched for flexibility and efficient identification. Each read/write head has a number of RFID tags to suit a variety of applications.

Two Modes for Flexible Operation

RFID IO-Link read/write heads offer users the flexibility to choose between easy mode and expert mode. Easy mode is a simple but powerful option that is suitable for most applications. Expert mode is available for demanding applications that require high-speed transmission of large quantities of data.

Easy mode offers simple commissioning with no programming. With auto-start functionality, it reduces the complexity of RFID. And function blocks are not required, which simplifies implementation considerably.

Expert mode is designed for high-performance data access using a handshake procedure. This mode requires a function block, which is available for download with corresponding instructions from our website. If you have any questions, our RFID experts are ready to help.




Easy Mode

- Ideal for simple applications with small quantities of data (up to 28 bytes)
- Plug-and-play
- Auto-start
- No function block required
- Reduces the complexity of RFID

Expert Mode

- Ideal for high-speed transmission of large quantities of data (over 28 bytes)
- Allows customized application solutions
- Uses a handshake procedure
- Function blocks available to download:
www.pepperl-fuchs.com/pf-rfid-io

Selected Technical Data

	IQT1-18GM-IO-V1	IQT1-F61-IO-V1	IQT1-FP-IO-V1
			
Operating frequency	13.56 MHz		
Read/write distance	0 ... 50 mm	0 ... 55 mm	0 ... 130 mm
Electrical interface	IO-Link (V1.1)		
Mechanical interface	M12 x 1		
Conformity	According to ISO 15693		
Dimensions	ø 18 mm, length 63.5 mm	80 x 28 x 12 mm	80 x 80 x 40 mm



For more information, visit
www.pepperl-fuchs.com/pf-rfid-io

Your automation, our passion.

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- Purge and Pressurization
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- HART Interface Solutions
- Surge Protection
- Wireless Solutions
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Industrial Sensors

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- Photoelectric Sensors
- Industrial Vision
- Ultrasonic Sensors
- Rotary Encoders
- Positioning Systems
- Inclination and Acceleration Sensors
- Fieldbus Modules
- AS-Interface
- Identification Systems
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- Connectivity