

Automate and Network Modular Machines for the Future

High performance, designed for time-sensitive networking (TSN) and unshakeable in the harshest environmental conditions: The WAGO I/O System Field for cabinet-free automation with IP67 protection and an impressive variety of functions.

Extended Network Connectivity

Modern, decentralized production facilities require automation solutions that ensure the highest level of connectivity while providing maximum performance outside the control cabinet.

WAGO developed its upgradable I/O System Field with IP67 protection to meet these needs today and tomorrow: It combines fast ETHERNET-based fieldbuses such as PROFINET, technologies such as OPC UA, Bluetooth® and Webserver, and MQTT as a protocol for cloud connectivity.

Combines Functionality and Aesthetics

The IP67 I/O System Field offers no-compromise protection with pressure cast zinc housings for extremely harsh environments, or robust and lightweight plastic housings for mobile applications. The modules operate reliably at temperatures from -25 to +70°C (-13 ... +158°F) and, thanks to internal shielding, are immune to electromagnetic interference. Slim housing variants and lateral mounting options open up more space.



Industrial Ethernet and PROFINET on the field level provide the basis for digitalization with WAGO I/O System Field. EtherNet/IP™ and EtherCAT® are planned in as ETHERNET-based standards and the I/O System Field is #made for TSN (Time-Sensitive Networking).



The WAGO I/O System Field supports MQTT as an open message protocol for data transmission.



Equipped with an OPC UA server, OPC UA clients can access the widest range of device data, e.g., parameter data, status information, identification and diagnostics data as well as containers.



Fieldbus modules equipped with IO-Link masters and IO-Link hubs as devices facilitate effective, versatile connection of intelligent sensors/actuators to the automation system.



An app which enables direct access to a WAGO Field Device by identification of a data matrix code and through communication via BLE (Bluetooth® Low Energy) is available for wireless access with a mobile device.



An integrated Webserver enables HTTP and HTTPS communication. With this capability, many different kinds of system information can be accessed with popular commercial browsers.

Integrated Load Management

Innovative load management ensures that the system's power is fully utilized via supply and output current load management. Current and voltage can be recorded and evaluated per channel. Overload limits can be set for individual channels. As a result, errors can be detected faster and more clearly differentiated in the event of faults – errors are also more easily predicted, which is essential for future topics such as predictive maintenance.

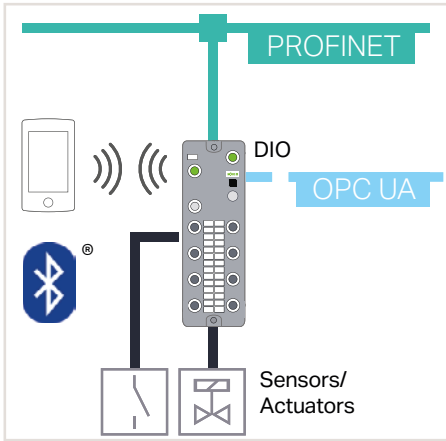
All-in-One Solution via IO-Link

In combination with IO-Link, the I/O System Field fully demonstrates its strengths as a flexible "IO distributor" for both data collection and distribution. The prominent communication standard enables seamless data flow from the control to the sensor and actuator level. This considerably simplifies configuration and cabling. Furthermore, completely new possibilities arise for diagnostics, parameterization and device identification.

Advantages:

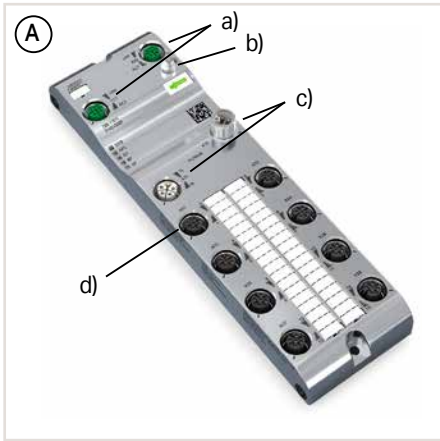
- Platform-independent data exchange through OPC UA
- System information provided via MQTT
- Fast on-site access to data through Bluetooth®
- Status information of the system via integrated Webserver
- Ready for future TSN implementation
- Fully encapsulated IP67 metal housings for extreme environments
- Non-encapsulated, lightweight IP67 plastic housings for mobile applications
- WAGO standard marking (WMB Inline markers and marking strips)

I/O System Field Interfaces and Types



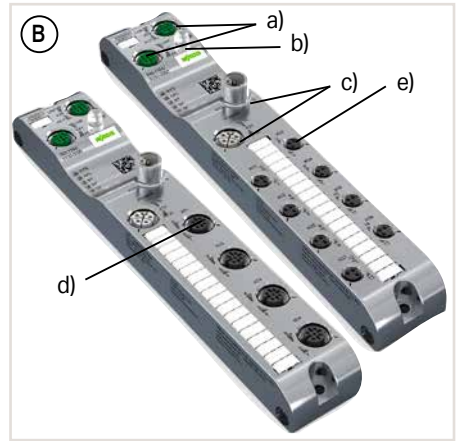
Fieldbus Module as PROFINET Slave

- 16 DI, 16 DO or 16 DIO, with A-coded M12; 5-pole
- 8 DIO with A-coded M12; 5-pole or M8; 3-pole



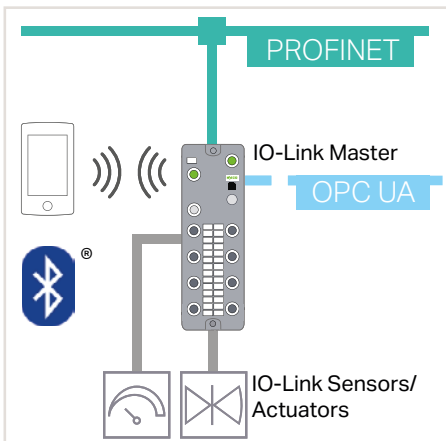
Housing Design (A)

- Fieldbus: 2 x D-coded M12; 5-pole (a)
- *Bluetooth*[®] (b)
- Supply: L-coded M12; 5-pole (c)
- Inputs/Outputs: A-coded M12; 5-pole (d)
- W x H x D (mm): 60 x 30 x 210



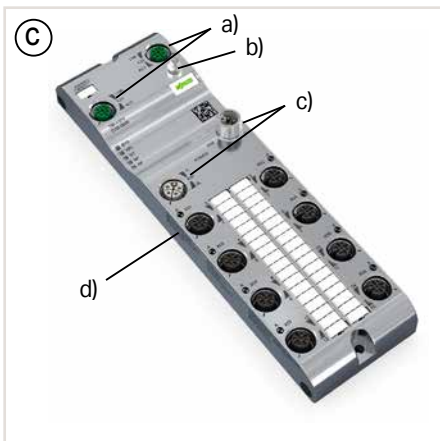
Housing Design (B)

- Fieldbus: 2 x D-coded M12; 5-pole (a)
- *Bluetooth*[®] (b)
- Supply: L-coded M12; 5-pole (c)
- Inputs/Outputs: A-coded M12; 5-pole (d) or M8; 3-pole (e)
- W x H x D (mm): 35 x 30 x 210



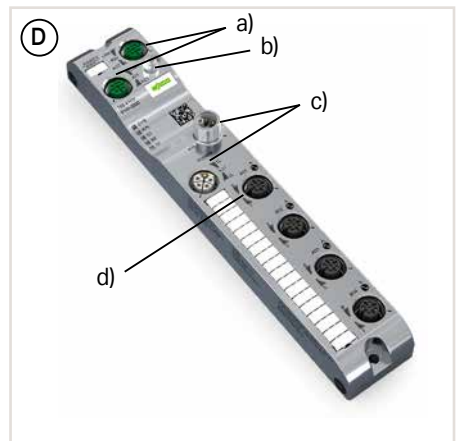
IO-Link Master as PROFINET Slave

- with A-coded M12; 5-pole
- 8 or 4 IO-Link ports, Class A
- 8 or 4 IO-Link ports, Class B



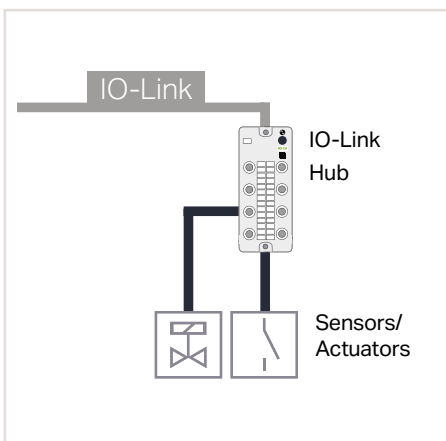
Housing Design (C)

- Fieldbus: 2 x D-coded M12; 5-pole (a)
- *Bluetooth*[®] (b)
- Supply: L-coded M12; 5-pole (c)
- IO-Link ports: A-coded M12; 5-pole (d)
- W x H x D (mm): 60 x 30 x 210



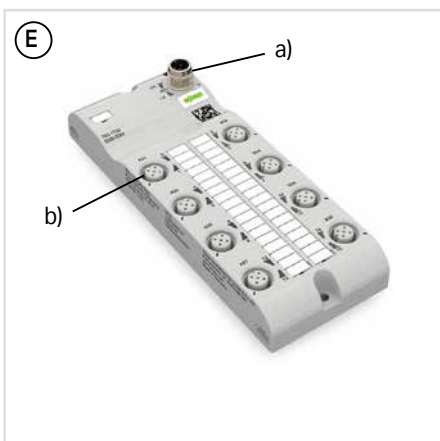
Housing Design (D)

- Fieldbus: 2 x D-coded M12; 5-pole (a)
- *Bluetooth*[®] (b)
- Supply: L-coded M12; 5-pole (c)
- IO-Link ports: A-coded M12; 5-pole (d)
- W x H x D (mm): 35 x 30 x 210



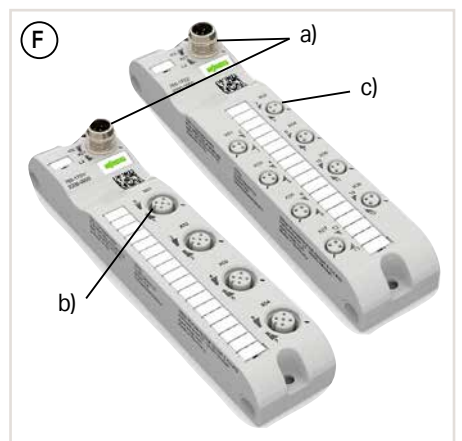
IO-Link Hub

- 16 DIO with A-coded M12; 5-pole
- 8 DIO with A-coded M12; 5-pole or M8; 3-pole



Housing Design (E)

- IO-Link hub: A-coded M12; 5-pole (a)
- Inputs/Outputs: A-coded M12; 5-pole (b)
- W x H x D (mm): 60 x 30 x 158.5



Housing Design (F)

- IO-Link hub: A-coded M12; 5-pole (a)
- Inputs/Outputs: A-coded M12; 5-pole (b) or M8; 3-pole (c)
- W x H x D (mm): 35 x 30 x 158.5