

For seamless communication from the sensor to the controller

STANDARD IO-LINK MASTER

The IO-Link communication standard is a central element for smart production processes, since it enables digital data exchange between sensors and controllers. The Standard IO-Link Master combines this proven technology with modern interfaces, expanding the possibilities in industrial automation.

Proven technology, enhanced with modern connections

The IO-Link network module is based on Balluff's established BNI family and features new, market-standard M12 L-coded connections. The L-coded M12 connections make it possible to deliver up to 2 A per port and up to 16 A total current. This facilitates the connection of actuators and high-power sensors and enables the efficient integration of a large number of IO-Link devices into your network structure using Balluff I/O modules.

Extended interfaces for seamless integration

In addition to the M12 power connector, the standard IO-Link master is equipped with future-proof data interfaces such as REST API and MQTT, which enable simple OT-IT integration. This innovation enables you to meet increasing technical requirements – especially in the context of the Industrial Internet of Things (IIoT).

In addition, the BNI Master supports most common industrial Ethernet protocols such as Profinet or Ethernet IP in a single device. This reduces the number of components required and also cuts costs. A user-friendly web user interface (web UI) makes it easier to configure and monitor the devices. It ensures reliable monitoring of your applications and consistent transmission of process and device information from the IO-Link device to higher-level systems.

Features

- IIoT-capable: REST API (JSON for IO-Link), MQTT
- Support for the most common fieldbus protocols
- Power: Output current max. up to 2 A per port
- Power: M12 L-coded (16 A total)
- Usability: integrated and intuitive web UI



By integrating I/O modules, you can flexibly scale your automation with the standard IO-Link master.

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	BNI00L3
Interfaces fieldbus	Multi-protocol (Profinet, Ethernet IP, EtherCAT)
Interfaces IIoT	REST API, JSON for IO-Link, MQTT
Display	No
Supply voltage	18...30 VDC
Connection COM 1	M12 female, 4-pin, D-coded
Connection COM 2	M12 female, 4-pin, D-coded
Connection supply voltage IN	M12 male, 5-pin, L-coded
Connection supply voltage OUT	M12 female, 5-pin, L-coded
Connection slots	8 × M12 female, 5-pin, A-coded
Digital inputs	16 × PNP, Type 3
Digital outputs	16 × PNP
In-/outputs configurable	Yes
Max. output current per port	2 A (Pin 2), 2 A (Pin 4)
Total current sensor/actuator	16 A/16 A
Housing material	Plastic
Dimensions	68 × 38,3 × 226,2 mm
Ambient temperature	-25...+70 °C
Protection class	IP67
Auxiliary interfaces	8 × IO-Link
IO-Link version	1.1.3
Port class	8 × Type A

ACCESSORIES



	BAM01C2
Type	Protective cap for M12 connections
Dimension	Ø 14 × 13.2 mm
Material	PC, ABS

CONNECTIVITY



	BCC0JFJ	BCC0L30	BCC09FU	
Connection 1	M12 male, straight, 4-pin, D-coded	M12 female, straight, 5-pin, L-coded	M12 female, straight, 5-pin, A-coded	
Connection 2	M12 male, straight, 4-pin, D-coded	M12 female, straight, 5-pin, L-coded	M12 male, straight, 5-pin, A-coded	
Cable	PUR shielded green, 5 m, drag chain compatible	PUR gray, 5 m, drag chain compatible	PUR black, 5 m, drag chain compatible	