



## IO-Link Master

### 8-EIP

(Ethernet/IP with Modbus TCP) Part Number: 99608-8

### and 8-PNIO

(PROFINET IO) Part Number: 99605-7



### KEY FEATURES AND BENEFITS

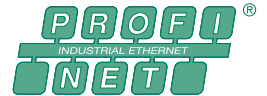
- Rugged IP67 housing designed for harsh environments, M12 connectors allowing up to eight sensor or actuator connections on one master block
- Rotary switches for IP address configuration
- Powerful web GUI for configuration and diagnostics, including: IO-Link device management using the IO-Link device manufacturers IODD file for easy device configuration
- Automatic data storage (upload and download)
- Manual data storage (upload and download)
- Device validation
- Data validation
- Wide operating temperature (-25° to +60°C)
- Additional digital input on every port
- IO-Link V1.1 compatibility
- IO-Link COM1, COM2 and COM3 support (230K baud rate)

### EtherNet/IP with Modbus TCP

- MultiLink – Simultaneously provides IO-Link device access to multiple controllers
- EtherNet/IP™ and Modbus TCP access to IO-Link process, event and service data
- EtherNet/IP Class 1 (Implicit) and Class 3 (Explicit) interfaces and provides Write-to-Tag/File and **Read-from-Tag/File support**
- HMI, SCADA, and PLC access to IO-Link ISDU blocks without complex programming
- EDS files and sample programs

### PROFINET IO

- PROFINET IO access to IO-Link process, event and service data
- PLC access to IO-Link ISDU blocks without complex programming
- Supports the IOL\_CALL function module
- GDSML files



### PRODUCT DESCRIPTION

Control Corporation's IO-Link Master combines the benefits of the IO-Link standard with the popular industrial protocols such as EtherNet/IP with Modbus TCP or PROFINET IO by providing a gateway that's a streamlined bridge between the field level sensor network and the industrial backbones, making retrofitting or expansion simple.

The IO-Link Master features a rugged IP67 slim-line design incorporating two Fast Ethernet ports and eight IO-Link ports with Class A M12 connectors. This product is for industrial applications with its machine-mount design using industrial grade components. The IO-Link Master is easily integrated into factory automation networks and is compatible with both IO-Link and digital IO sensor technologies.

# IO-LINK MASTER SPECIFICATIONS

## HARDWARE

**Network Interfaces**  
10/100BASE-TX

**Enclosure**  
Molded ABS (potted)

**Installation and Grounding Method**  
Machine or panel mount - two-hole M4 or #8 screws

**Network Protocols**  
EtherNet/IP, Modbus/TCP (slave) - 8-EIP (99608-8)  
PROFINET IO - 8-PNIO (99605-7)

**Connectors (M12)**  
8 - IO-Link  
2 - Ethernet  
2 - Power

**LED Indicators**  
Power, Module Status, Network Status, IO-Link, DI and Ethernet Port Link/Activity Status

**Dimensions**  
8.35" x 2.56" x 1.18"  
212 x 65 x 30 mm

## ETHERNET INTERFACE SPECIFICATIONS

**Connector Type**  
Female, M12 D-coded, 4-pin

**Number of Ports**  
2

**Ethernet Specification**  
10/100BASE-TX

**Standards**  
IEEE 802.3: 10BASE-T  
IEEE 802.3u: 100BASE-TX

**Auto-MDI/MDI-X**  
Yes

**Auto-Negotiation**  
Yes

**Link Distance**  
100 m

**Cable Types**  
Twisted pair (Cat 5 or higher)

**IPv4 Addressing**  
Yes

## IO-LINK INTERFACE SPECIFICATIONS

**Connector Type**  
Female, M12 A-coded, 5-pin

**Number of Ports**  
8

**Transfer Rates**  
4.8K (COM1)  
38.4K (COM2)  
230.4K (COM3)

**Baud Rate Recognition**  
Automatic

## DIGITAL INPUTS

(SIO Mode Using IO-Link Ports)

**Connector Type**  
Female, M12 A-coded, 5-pin

**Number of Ports**  
8

**Input Characteristics**  
IEC 61131-2 Type 1 and Type 3 Compliant

**Short-Circuit and Overload Protection**  
Yes

**Short-Circuit Proof**  
Yes

**Input Current Limitation**  
Yes

**Cable Length (Max.)**  
30 m

## DIGITAL OUTPUTS

(SIO Mode Using IO-Link Ports)

**Connector Type**  
Female, M12 A-coded, 5-pin

**Number of Ports**  
8

**Actuator (Sensor) Current Load (Max.)**  
200mA

## IO-LINK MASTER FEATURES

**Data Storage**  
Automatic or Manual - Upload and/or Download

**Device Validation**  
Yes

**Data Validation**  
Yes

**Powerful Web Interface**  
Provides the following capabilities

- Firmware upgradable
- Password protected with Admin, Operator, and User accounts
- ISDU batch handling
- Load IODD files to configure the IO-Link Device
- IODD Handler parses xml files making them readable and configurable
- Log files

**Upgradable Firmware**  
Yes (Web page or using PortVision DX)

**Remote Parameterization**  
Yes

**Mobile App Support**  
Simplify monitoring of control system Process and Service Data using simple standard clients available for free in Google Play and Apple App Store

## ELECTRICAL SPECIFICATIONS

**Input Voltage Rang**  
20-30VDC / 10A (Max)

**Power Supply In**  
V<sub>S</sub> - 10A (Max)  
V<sub>A</sub> - 10A (Max)

**IO-Link Connector**  
Port 1 C/Q or Pin 4 Vx on Pins 1,3  
200mA (Max) 1.6A (Max)  
Ports 2-8 200mA (Max) 500mA (Max)

**IO-Link Master Power**  
100mA @ 24VDC (Vs)

**Power Supply Out**  
V<sub>S</sub> - 10A (Max)\*  
V<sub>A</sub> - 10A (Max)\*\*

**Short-Circuit Protection for IO-Link Connectors**  
Yes

**Power Connectors**  
Input (1)  
Male M12 T-coded 4-pin  
Output (1)  
Female M12 T-coded 4-pin

## ENVIRONMENTAL SPECIFICATIONS

**Air Temperature**  
System On  
-25°C to +60°C  
System Off  
-40°C to +70°C

**Operating Humidity (non-condensing)**  
10% to 95%

**Storage Humidity (non-condensing)**  
10% to 95%

**Shock/Vibrations**  
EN60068-2-6  
EN60068-2-27

**Enclosure Rating**  
IP67 (IEC 60529)

\*Vs output available is determined by subtracting the following from the available input current:  
IO-Link Module Power  
Actual C/Q current for each IO-Link Port  
Actual Vs current for each IO-Link port  
\*\* V<sub>A</sub> output available is the same as the available V<sub>A</sub> input current

## WHAT IS IO-LINK?

IO-Link is a point-to-point serial communication protocol used to communicate with sensors and/or actuators. This increasingly deployed protocol extends the globally recognized PLC standard IEC 61131, which allows three types of data to be exchanged: process data, service data and events.

Major sensor manufacturers and industrial manufacturing companies, including Comtrol, have joined the international IO-Link Consortium to promote the IO-Link communication protocol due to its many advantages over standard I/O.

## WHY IO-LINK?

IO-Link is a powerful, yet simple, protocol with wide support in the industry. There are many reasons to use IO-Link. In almost any place that a digital or analog sensor is used, an IO-Link sensor can provide the end user significantly more information, configurability and control. From installation to operation and even maintenance of an automation system, IO-Link provides clear advantages over legacy solutions.



### Warranty Information

Comtrol offers a 30-day satisfaction guarantee and 5-year limited warranty.

### Sales Support

+1.763.957.6000  
sales@comtrol.com

### Technical Support

+1.763.957.6000  
www.comtrol.com/support

### Email, FTP, and Web Support

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