



IO-Link Master DR-8-PNIO

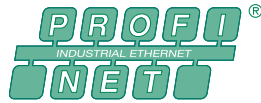
Part Number: 99592-0



KEY FEATURES AND BENEFITS

- Eight port IO-Link Master to PROFINTE IO with additional digital inputs on every port allowing for a possible 10 DI ports with the two dedicated DI/DO ports
- PROFINET Certification
- Screw terminal connectors for IO-Link, Power, and Digital IO
- IP20 DIN rail mount enclosure
- Wide operating temperature (-40° to +70°C)
- LEDs for device, network, and port status
- 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, and Data validation.
- IO-Link V1.0 and V1.1 compatibility
- IO-Link COM1, COM2 and COM3 support (230K baud rate)
- Write-to-Tag/File, Read-from-Tag/File
- PLC access to IO-Link ISDU blocks without complex programming
- Quality of Services Agreement
- Accredited IO-Link Test Center

IO-LINK MASTER



PRODUCT DESCRIPTION

Control's IO-Link Master DR-8-PNIO combines the benefits of the IO-Link standard with the popular industrial PROFINET IO protocol by providing a gateway that's a streamlined bridge between the field level sensor network and the industrial PROFINET IO backbone, making retrofitting or expansion simple.

The IO-Link Master easily installs on a standard DIN rail and incorporates two Fast Ethernet ports, eight IO-Link ports, two DI/DO ports and two DI ports. This product is designed with industrial grade components and redundant power inputs to make it exceptionally reliable for critical applications. The IO-Link Master is easily integrated into a system network, and is compatible with existing and new industrial Ethernet environments.

IO-LINK MASTER SPECIFICATIONS

HARDWARE

Network Interfaces	10/100BASE-TX
Enclosure	
Polyamide, UL94V-0	
Ingress Protection Rating	IP20
Installation and Grounding Method	DIN rail
Network Protocols	PROFINET IO
Connectors	
DI/DO, Ethernet, IO-Link, Power	
Channels	
IO-Link - 8	
Fixed Digital Input - 10	
Configurable Digital Input / Output - 2	
LED Indicators	
Power, Module Status, Network Status, IO-Link, DI, DIO states, and Ethernet Port Status	
Dimensions (L x W x H)	
3.9" x 4.5" x 1.8"	
100 x 115 x 45 mm	
Product Weight	
10 oz	
285 g	

IO-LINK INTERFACE SPECIFICATIONS

Connector Type	Screw Terminal
Number of Ports	8
IO-Link Version	Supports V1.0 and V1.1
Configurations per port	
IO-Link = 1	
DI (SIO mode) = 1	
DO (SIO mode) = 1	
DI (dedicated) = 1	
IO-Link Mode Transfer Rates	
4.8K (COM1)	
38.4K (COM2)	
230.4K (COM3)	
Baud Rate Recognition	Automatic
Output Current on IO-Link Connectors (Ports 1-8)	
C/Q on Pin 4	200mA (Maximum)
	200mA (Maximum)
Cable Length (Max.)	20m

DIGITAL INPUTS C/Q (SIO Mode Using IO-Link Ports)

Sensor Current Load (Maximum)	200mA
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
C/Q Input Threshold	
Low: 8.0 - 11.5V	
High: 10.5 - 13.0V	
Cable Length (Max.)	30m

DIGITAL OUTPUTS C/Q (SIO Mode Using IO-Link Ports)

Actuator Current Load (Maximum)	200mA
Input Characteristics	
IEC 61131-2 Type 1 and Type 3 Compliant	
Short-Circuit and Overload protection	Yes
Short-Circuit proof	Yes
Input Current Limitations	Yes
Output Function	PNP/NPN
Cable Length (Max.)	30m

DIGITAL INPUTS C/Q (DI and DIO Pin)

Sensor Current Load (Maximum)	200mA
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
C/Q Input Threshold	
Low: 5.2 - 6.4V	
High: 6.8 - 8.0V	
Cable Length (Max.)	30m

DIGITAL OUTPUTS DIO PIN

Actuator Current Load (Max.)	200mA
Short-Circuit and Overload protection	Yes
Short-Circuit proof	Yes
Input Current Limitation	Yes
Output Function	PNP, NPN
Cable Length (Max.)	30m

DEDICATED DIGITAL IO PORTS (Digital Input Mode)

Connector Type	Screw Terminal
Number of Ports	2 (D1 & D3)
Cable Length (Max.)	30m

DIGITAL INPUTS/OUTPUTS

Connector Type	Screw Terminal
Number of Ports	2 (D2 & D4)
Configurations per port	
DI/DO (configurable) = 1	
DI (dedicated) = 1	
Cable Length (Max.)	30m

DIGITAL OUTPUTS

Actuator (Sensor) Current Load (Max.)	200mA
Lamp Load (Max.)	4W
Over Load and Short Circuit Protection	Yes
Switching Output	PNP, NPN

ETHERNET INTERFACE SPECIFICATIONS

Connector Type	RJ45
Number of Ports	2
Ethernet Specification	10/100BASE-TX
Standards	
IEEE802.3: 10BASE-T	
IEEE 802.3u: 100BASE-TX	
Auto-MD/MDI-X	Yes
Auto-Negotiation	Yes
Link Distance	100m
Cable Types	
Unshielded or Shielded twisted pair	
IPv4 Addressing	Yes

PROFINET IO

Web Page Configuration	
PROFINET IO Device Name	
IOL_CALL Function Block Timeout (1-20)	
Diagnostics	Yes
GSD Files	Yes

DR-8-PNIO 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

DC Input Voltage Range	18-30VDC
Current Consumption (Max.)	4.3A @ 24VDC
Current Consumption (w/out devices)	100mA
Current Consumption (with load)	4.04A
Power Consumption (w/out load)	2.4W
Power Connectors	Screw terminal

ENVIRONMENTAL SPECIFICATIONS

Air Temperature	
System On	-40°C to +70°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	
Environmental / Mechanical Approvals	
IEC 61131-2	
IEC 60529	

EXPORT INFORMATION

Package Weight	1.1 lbs	
	481.94 g	
Package Dimensions	9.2" x 7.25" x 2.5"	
	233 x 184 x 64 mm	
Country of Origin		USA
ECCN		5A992
Schedule B Number		8517.62.0050

REGULATORY APPROVALS

Immunity

European Standard 61000-6-2
International Standard IEC 61000-6-2
IEC 61131-2
IEC 1000-4-2/EN 61000-4-2: Electrostatic Discharge (ESD)
IEC 1000-4-3/EN 61000-4-3: Radiated, Radio-Frequency (RF)
IEC 1000-4-4 /EN 61000-4-4: Fast Transient/Burst
IEC 1000-4-5/EN 61000-4-5: Surge
IEC 1000-4-6/EN 61000-4-6: Conducted disturbance
IEC 1000-4-8/EN 61000-4-8: Magnetic Field
IEC 1000-4-11/EN 61000-4-11: Dips and Voltage Variations

Emmissions

European Standard EN 61000-6-4
International Standard IEC 61000-6-4
AS/NZS CISPR-11
FCC Part15 Subpart B: Class A limit
Canadian EMC requirements ICES-001

Safety

CSA C22.2 No. 61010-1-12 / CSA C22.2 No. 61010-1-201
UL 61010-1/UL 61010-1-201

Other

Ingress Protection rating IP@ (IEC 60529)
Environmental & Mechanical testing per IEC/EN 61131-2
European Standard: 2011/65/EU (RoHS2) Directive.

Regulatory Approval Symbols



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

info@comtrol.com
ftp.comtrol.com
www.comtrol.com