



## CNC MACHINES ADDING INTELLIGENCE THROUGH THE USE OF IO-LINK AND CONTROL'S MASTER

Various industries often stick with components that just get the job done. But for one machine builder, they have taken a more forward thinking approach. By implementing spindles that are IO-Link capable, it is giving their customers greater insight that can be very valuable. While CNC machines are already intelligent, IO-Link offers added intelligence.

These IO-Link spindles run a cutting tool on a CNC machine and are connected to a CNC controller using Control's DR-8-EIP IO-Link Master. They learned that it would be possible to use ISDU (Indexed Service Data Unit) messaging via IO-Link to read certain data worth monitoring. The machine builder wanted to read data from the spindle including circuit board temperature and vibration. The spindle would also provide collision detection and includes cycle counters for mechanical parts. Other standard, non IO-Link spindles often just perform as designed without giving much access to data or diagnostic information. But by using an IO-Link version, it allows them to offer a "smart machine" to end-users by utilizing this powerful technology and communicating this information to the controller using the Control master.



### Why was Control the Best Solution?

The Control master was a perfect solution because it could connect the IO-Link spindle to the CNC controller using Modbus TCP. They determined this was the easiest way to utilize the ISDU messaging to access the data they wanted to analyze. Control's Multi-Link feature, which gives the flexibility to communicate using Ethernet/IP, Modbus TCP or both, also proved to be useful. Lastly, Control's support team worked with the machine builder and CNC controller manufacturer to ensure the Modbus configuration was set up and working properly.

# IO-Link Master DR-8-EIP

Part Number: 99590-6



## KEY FEATURES AND BENEFITS

- Eight port IO-Link Master to EtherNet/IP™ with additional digital inputs on every port allowing for a possible 10 DI ports with the two dedicated DI/DO ports
- 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
- EtherNet/IP™ and Modbus TCP access to IO-Link process, event, and service data
- EtherNet/IP™ Class 1 (Implicit) and Class 3 (Explicit) interfaces
- 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.
- Works with PortVision DX
- 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
- MultiLink™ – Simultaneously provides IO-Link device access to multiple controllers
- Quality of Services Agreement
- Accredited IO-Link Test Center



## PRODUCT DESCRIPTION

Control's IO-Link Master DR-8-EIP combines the benefits of the IO-Link standard with the popular industrial EtherNet/IP protocol by providing a gateway that's a streamlined bridge between the field level sensor network and the industrial EtherNet/IP 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.



### Warranty Information

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

### Sales Support

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