

PAINT SPRAYING OPERATION INTEGRATES IO-LINK

A furniture manufacturer was in need of a time and money saving solution. This company needed something that could identify the size of sections of furniture on the paint spraying line and thus reduce over-spraying and wasting paint. Leuze's CML720i light curtains that were IO-Link enabled were chosen to accurately measure piece dimensions. They also needed an IO-Link master block that could handle the power requirements and effectively communicate with the PLC.



The CML720i light curtains are positioned at the entrance of a paint powder coating machine which tell the automated paint guns when to spray and when to turn off, based on the size of the piece moving through. Before this solution, spray guns would turn on well before a piece arrived and remained on well after, which over time wastes a large amount of paint. They also wanted to avoid spraying the hooks connected to the conveyor system which guided the pieces through the painting machine. All of this information is communicated to a PLC running on EtherNet/IP via the Comtrol IO-Link master 8-EIP.

By using Leuze's CML720i light curtains that are IO-Link version 1.1 devices, they are able to save parameters set for the CML720i light curtains

right in the Comtrol IO-Link master by using an IO-Link feature called Data Storage. This allows the customer to easily replace a CML720i light curtain and automatically upload the previously saved settings to the newly connected curtain. This eliminates the need to configure the device from the default state.

Comtrol was able to meet the needs of this application in a number of ways. The IO-Link Master 8-EIP supports high power current support, including 1.6 amps on port #1, which is required to operate the large CML720i light curtains. The IO-Link Master also provides power overload protection. If a device is connected that is attempting to pull more power than can be provided, the IO-Link Master will shut down that port once a certain threshold is exceeded. When the power draw subsides, the port will re-activate. In addition, the powerful web-interface provides the customer with multiple benefits that most master blocks do not. For example, the web-interface allows the user to:

- Save IODD files in a library
- Utilize data storage
- Change the parameters of a device right in the web-page
- Use device validation to allow a specific device to work on a specified port
- Configure ports to operate as an IO-Link port, Digital Input or Digital Output
- Look at PLC diagnostics

IO-Link Master 8-EIP

Part Number: 99570-8



KEY FEATURES AND BENEFITS

- Eight channel IO-Link Master to Industrial EtherNet/IP™
- EtherNet/IP™ and Modbus TCP access to IO-Link process, event and service data
- EtherNet/IP™ Class 1 (Implicit) and Class 3 (Explicit) interfaces
- Write-to-Tag/File, Read-from-Tag/File
- PLC access to IO-Link ISDU blocks without complex programming
- Rugged IP67 housing designed for harsh environments, M12 connectors allowing up to four sensor connections on one master block
- 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)
- Multi-side LED visibility for device, network and port status
- Additional digital input on every port
- Works with PortVision DX
- IO-Link V1.1 compatibility
- IO-Link COM1, COM2 and COM3 support (230K baud rate)
- Slim-line machine-mount installation
- MultiLink – Simultaneously provides IO-Link device access to multiple controllers



PRODUCT DESCRIPTION

Control's IO-Link Master 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 features a rugged IP67 slim-line design incorporating two Fast Ethernet ports and four 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.



Warranty Information

Control 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