Initial Startup of the IO-Link Interface for optris® CTi and CTratio Series

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Optris GmbH & Co. KG
Ferdinand-Buisson-Str. 14
13127 Berlin
Germany
Tel. +49 (0)30 500 197-0
Fax +49 (0)30 500 197-10
info@optris.com
www.optris.com

1 Introduction

This manual describes the initial steps to bringing the IO-Link interface for the Optris CTi and CTratio series online. It covers the integration and activation of the device within your IO-Link master system. For detailed parameter descriptions, process data configuration, and advanced functionality, please refer to the separate parameter table.

2 Safety and Guidelines

2.1 Manufacturer Information

This device is manufactured by Optris GmbH & Co. KG.

2.2 Safety Precautions

Please observe all general safety instructions provided in the main operating manual of your Optris device. Ensure the device is powered correctly and that all electrical connections are made with the power switched off.

3 Scope of supply

Interface PCB incl. wires and connector



Figure 1: Interface

CTi IO-Link-Cover with windows for Status-LEDs for exchanging existing CTi-Cover

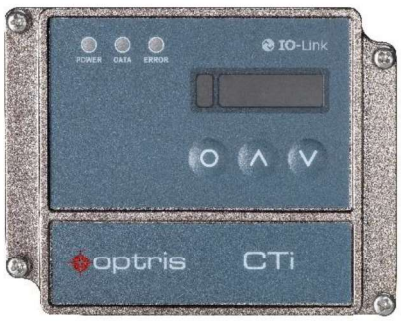


Figure 2: IO-Link Cover

Optris GmbH & Co. KG
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4 Hardware Setup

4.1 Install interface board

Plug the IO-Link Interface board into the place provided, which is located beside the LCD display of the Electronic Box in the correct position, the holes of the Interface board match with the thread holes of the CTi Electronic Box.

Press the Interface board down to connect it with the Optris CTi Electronic Box. Use both M3x5 screws for fixing the interface on the electronic board. Exchange the blind screw on the CTi box by M12 4-pin connector and connect the wires corresponding to the colors as shown in **Figure 3**.



Figure 3: opened CTi Electronic Box with IO-Link interface board



Figure 4: CTi with IO-Link-Cover IO-Link cable (not in scope of supply)

4.2 Physical Connection

IO-Link Cable: Use a standard IO-Link cable to connect the device to your IO-Link network segment.
Connection: The Optris device is terminated with 4-pin M12 A-coded connectors on the end.
USB Port: Please do not use the USB-Port while configuring or using the IO-Link port.

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Power: Ensure the device is powered via its designated power supply input. **Do not** use the side USB port for power during IO-Link operation, as this will interrupt IO-Link communication.

4.3 Network Integration

Integrate the device into your IO-Link network as you would any other IO-Link Slave device. Sensors can be configured remotely via the controller—no physical access needed. Digital transmission replaces analog signals, eliminating scaling in the PLC and increasing accuracy.

4.4 Using PC

For using the Optris device with the IO-Link interface connecting to the PC a USB-IO-Link adapter is needed.
Note: The maximum cable length from device to the IO Master is 20 meters.

5 PLC Configuration

Start your software of your PLC and load the included IODD-file. Alternatively, you can download the IODD file from the Optris website.
Choose the right IODD file in the zip folder, the file has to match to your Optris CTi-device. The part number of your Optris CTi device is printed on the electronic box.
After loading the IODD file you can freely integrate the wished values for the automation system.

6 Software Configuration

After connecting the Optris Device to a USB-IO-Link adapter to your PC, install and open your IO-Link software (e.g. Baumer Sensor Suite).
Power your Optris Device with an external power supply.
Connect the USB-IO-Link adapter to the USB-Port of the PC. The Power LED lights up and the DATA LED begins flashing.
Note: Do not use the external USB for powering the CTi.

6.1 Import IODD file

- Go to **Device Library** and choose the right IODD file from a folder or from a zip file.
- The device will appear in the list with the vendor information
- Go to **Device Cockpit** and click on *Find and connect* under **All devices**.

6.2 Values on dashboard

- To see the measure values or the Temperature time diagram go to **Dashboard** and click on the **+** Button.
- Click on interested values and click **Close**
- Under **Configuration** you can choose between **Numeric indication**, **Live Chart** and other different views

7 Support

For further technical support, please contact:

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email: info@optris.com
web: www.optris.com

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