

Rosemount™ IO-Link USB Communicator



Contents

About this guide..... 3

About this product..... 4

Install hardware..... 5

Install software..... 6

Download and install IODD files.....7

Reference information..... 9

1 About this guide

This guide provides basic guidelines for the Rosemount IO-Link USB Communicator. It does not provide instructions for diagnostics, maintenance, service, or troubleshooting. This guide is available electronically on [Emerson.com/Rosemount](https://www.emerson.com/Rosemount).

1.1 Safety messages

⚠ WARNING

Installation considerations

Read this guide before working with the product. For personal and system safety, and for optimum product performance, ensure you thoroughly understand the contents before installing, using, or maintaining this product.

Failure to follow these installation guidelines could result in death or serious injury.

Use the equipment only as specified in this manual. Failure to do so may impair the protection provided by the equipment.

Use the equipment only as specified. Failure to do so may impair the protection provided by the equipment.

Ensure the device is installed by qualified personnel and in accordance with applicable code of practice.

All operation described in this document must be carried out by authorized, trained personnel only.

Equipment modifications

Do not make changes to the source code or individual components. Changes such as this which are not explicitly stated in this document may forfeit any rights to technical support by the manufacturer.

Physical access

Unauthorized personnel may potentially cause significant damage to and/or misconfiguration of end users' equipment. This could be intentional or unintentional and needs to be protected against.

Physical security is an important part of any security program and fundamental to protecting your system. Restrict physical access by unauthorized personnel to protect end users' assets. This is true for all systems used within the facility.

2 About this product

The Rosemount IO-Link USB Communicator connects IO-Link devices to a PC for quick and easy parameter setup via for example Rosemount IO-Link Assistant, PACTware, or other FDT containers. The IO-Link USB communicator is not intended for operations in manufacturing plants.

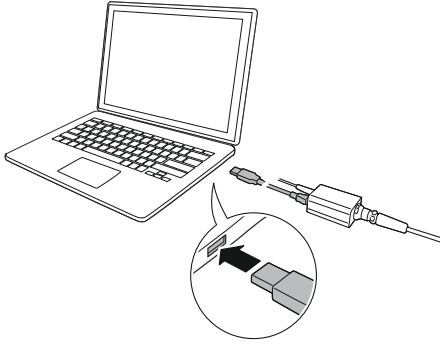
Related information

[Rosemount IO-Link Assistant Reference Manual](#)

3 Install hardware

Procedure

1. Connect the USB IO-Link Communicator to the PC.



2. Connect the M12 cable and screw tight.
3. If required, connect the external power supply.

Note

The external power supply is required only for IO-link devices with a higher current consumption (> 80 mA).

4 Install software

4.1 Download the device software

The installation package contain the driver software and DTM file.

Prerequisites

The driver is also included in the Rosemount IO-Link Assistant installation package.

Procedure

1. Go to the Rosemount IO-Link USB Communicator product page at [Emerson.com/Rosemount](https://emerson.com/rosemount).
2. Click **Documents & Drawings** → **Software Download & Drivers**.
3. Download the "Gateway DTM for IO-link USB Communicator" package.

4.2 Install the device software

Procedure

1. Unzip the "Rosemount IO-Link Gateway DTM" package.
2. Run the "Setup.exe" file.
3. Follow the instructions in the installation wizard.

5 Download and install IODD files

5.1 Rosemount IO-Link Assistant


5.1.1 Get the latest IODD files

The Rosemount IO-Link Assistant software checks and lets you download the latest IODDs for your device catalog.

Prerequisites

For an online update, an internet connection is required.

Procedure

1. Click the  icon.
2. In the **Vendor** list, select **Rosemount Inc.**, and then select the check box for the devices to be installed/updated.
Alternatively, browse to an already downloaded IODD zip file, and select **Open**.
3. Select **OK**.

Related information

[Rosemount IO-Link Assistant Reference Manual](#)

5.2 FDT[®]/DTM framework

5.2.1 Download the IODD file

Procedure

1. Download the IODD from the IODDFinder portal at loddfinder.io-link.com.
2. Unzip the IODD package.

5.2.2 Integrate IODDs into an FDT[®]/DTM framework

An IODD DTM Interpreter is required to integrate IODDs into an FDT/DTM environment (e.g PACTware).

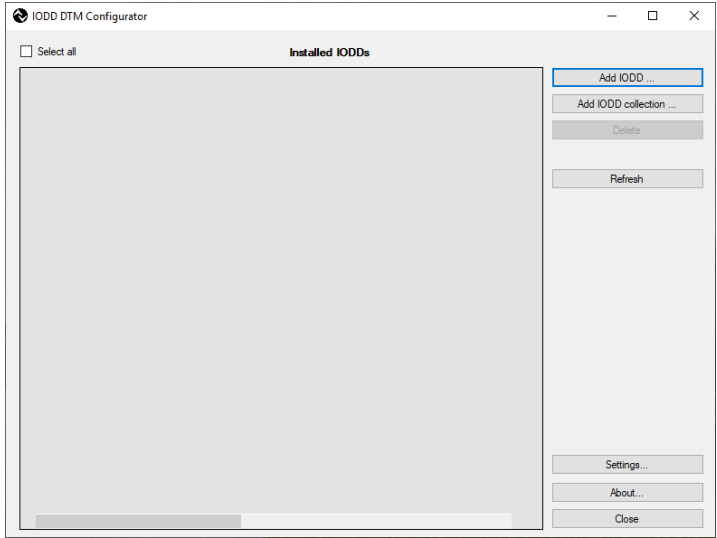
Prerequisites

The IODD DTM Interpreter is usually included in the FDT/DTM software installation package. It can also be downloaded from Emerson.com/Rosemount.

Procedure

1. Start the **IODD DTM Interpreter** software.

2. Select **Add IODD**.



- 3. Browse to the IODD file (.xml) and select **Open**.
- 4. Start the configuration tool and update the device catalog.

Need help?

If the new DTM is not added automatically at start-up, then select **View** → **Device Catalog** → **Update Device Catalog**.

6 Reference information

6.1 Connections

Table 6-1: IO-Link connection

M12 (a-Coded connector) interface to the sensor with IO-Link

Pin	Signal	Function
1	+24 V	+24V 1 A / 80 mA
2	IO-Link	IO-Link
3	GND	0 V
4	IO-Link	IO-Link
5	-	NC



Table 6-2: USB connection

Pin	Signal	Function
1	+5 V	VBUS +5VDC/500 mA
2	D-	Data -
3	D+	Data +
4	ID	Not connected
5	GND	Ground



Table 6-3: Wall power supply

Pin	Signal
1	+24 V
2	GND
3	GND

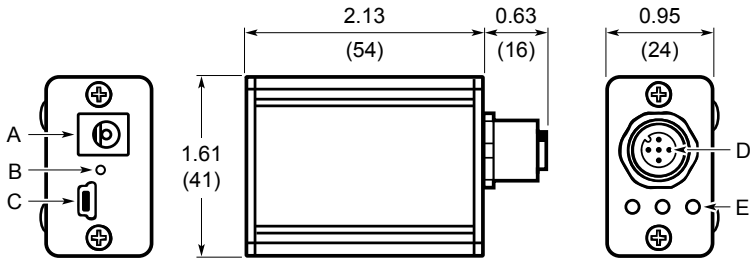


6.2 Light emitting diodes

Inscription	Color	Definition
PWR	Yellow	Indicates power supply at the USB port
CH1(C/Q)	Green/yellow	Green: IO-Link mode <ul style="list-style-type: none"> LED blinks slowly if no IO-Link connection LED blinks quickly in pre-operate state LED constantly lit if IO-Link connection is active (operate state) Yellow: SIO mode (indicates digital state at port C/Q)
CH2(DI/DO)	Yellow	Indicates the digital state at port DIO
Error	Red	Flashes in case of errors (e.g. short circuit, errors in data transmission)

6.3 Dimensions

Figure 6-1: Rosemount IO-Link USB Communicator



- A. DC 24V
- B. PWR LED
- C. Mini USB B
- D. M12-A
- E. CH1(C/Q)
CH2(DI/DO)
Error

Dimensions are in inches (millimeters).



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