ifm ZZ1060 IO-Link Master With USB Interface Set Instruction Manual

Instructions for set-up
IO-Link master with USB interface (set)
ZZ1060

ZZ1060
IO-Link master with USB interface (set)

Contents

Preliminary note

You will find instructions, technical data, approvals and further information using the QR code on the unit / packaging or at **documentation.ifm.com**.

1.1 Symbols used

✓		Requirement
▶		Instructions
▷		Reaction, result
[...]		Designation of keys, buttons or indications
→		Cross-reference Important note
⚠		Non-compliance may result in malfunction or interference.
ⓘ		Information Supplementary note

1.2 Change history

Issue	Subject	Date
0	New creation of the document	Sep-23

Safety instructions

- The unit described is a subcomponent for integration into a system.
  - The system architect is responsible for the safety of the system.
  - The system architect undertakes to perform a risk assessment and to create documentation in accordance with legal and normative requirements to be provided to the operator and user of the system. This documentation must contain all necessary information and safety instructions for the operator, the user and, if applicable, for any service personnel authorised by the architect of the system.
- Read this document before setting up the product and keep it during the entire service life.
- The product must be suitable for the corresponding applications and environmental conditions without any restrictions.
- Only use the product for its intended purpose (Ò Intended use).
- If the operating instructions or the technical data are not adhered to, personal injury and/or damage to property may occur.
- The manufacturer assumes no liability or warranty for any consequences caused by tampering with the product or incorrect use by the operator.
- Installation, electrical connection, set-up, operation and maintenance of the product must be carried out by qualified personnel authorised by the machine operator.
- Protect units and cables against damage.

2.1 Applicable documents

ⓘ The documents can be downloaded at: **www.ifm.com**

- Operating instructions IO-Link masters
- Operating instructions IO-Link device (sensor / actuator)
- Short instructions USB cable
- Short instructions sensor cable

- ifm moneo installation instructions
- ifm moneo Help

  🛈 Read the instructions of the individual components of the application package before use.

Intended use

The product package is used for connection and parameter setting of IO-Link devices from a computer.
The IO-Link master serves as control unit for the connected IO-Link device.
With the moneo configure SA software, the user can configure the IO-Link master and the connected IO-Link device. In addition, the process data of the IO-Link master and the IO-Link device can be visualised.

Items supplied

The ZZ1060 contains the following items:

- IO-Link master USB 1 port (AL1060)
- USB cable (E12689)
- Sensor cable (EVC012)

4.1   Optional accessories

- Plug-in power supply 24 V DC EU (E80120)
- Plug-in power supply 24 V DC WW (E80121)

Function

5.1   IO-Link master
The device offers the following functions:

- IO-Link master (IO-Link revision 1.0 and 1.1)
- 1 port to connect an IO-Link device
- Voltage supply for an IO-Link device
- Optionally additional digital input or output
- Optical signalling (status of voltage supply, IO-Link port and signal of digital input/output)

5.2   ifm moneo|configure free
ifm moneo|configure free can be downloaded free of charge from the ifm website: **www.ifm.com**
The software provides the following functions:

- Parameter setting of the IO-Link master (online, offline)
- Parameter setting of the connected IO-Link device (online, offline)
- Access to process data (IO-Link master, IO-Link device)
  - Setting of output data
  - Visualisation of input data
- Access to IO-Link events
- Updating the firmware of the IO-Link master

Electrical connection

The devices must be connected by a qualified electrician.

- Observe the national and international regulations for the installation of electrical equipment.
- Adhere to the notes in the instructions of the individual components.
- Disconnect power.

6.1 Overview
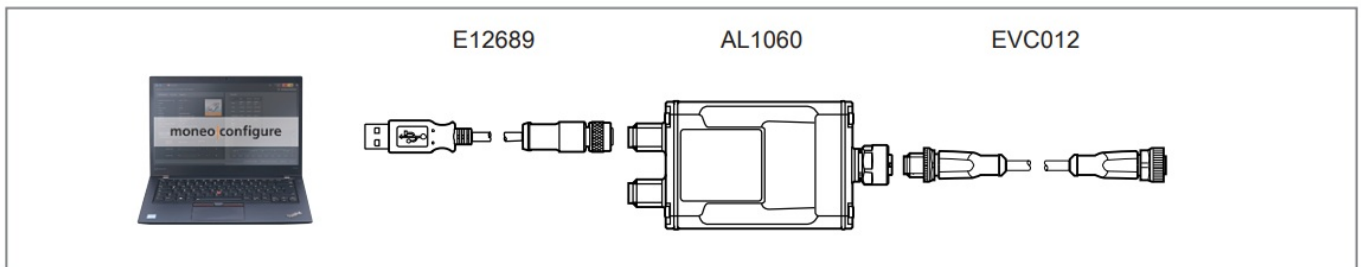
6.2 Connecting the IO-Link master
► Connect the device to the USB interface of the PC via the "USB" port.
► For the connection, use the enclosed M12 connector (art. no.: E12689).
If the IO-Link device temporarily or permanently requires more than 160 mA ±10 %, the power supply via the "USB" port is not sufficient.
► Optional: connect the device to the 24 V DC supply voltage (20…30 SELV/PELV) via the "AUX" port.
Recommended max. cable length: 3 m.
► Tighten the cable sockets according to the torque specifications indicated by the manufacturer.
Maximum permissible tightening torque: 1.8 Nm.

⚠ If the additional voltage supply is disconnected from the "AUX" port, the device reboots.
►For stable operation, always operate the device with an external voltage supply at port "AUX".
► Ensure correct cabling! Do not connect additional supply voltage to "USB" port.

6.3 Connecting the IO-Link device
► Connect the IO-Link device to the port.
►For the connection, use the enclosed M12 connector (art. no.: EVC012).
► Tighten the cable plug using 0.6…1.5 Nm.

Set-up

► Connect the IO-Link master to a computer (Ò Connecting the IO-Link master / 8).
► Optional: connect the IO-Link master to an additional voltage supply.

▷ When connecting the IO-Link master to the USB port of the computer, it will start with factory settings.

▷ The display elements signal the current operating states of the devices and interfaces (Ò Instructions of the individual components).
No special drivers are required to operate the IO-Link master under Microsoft Windows 10. When connecting the device to the USB port, the operating system will recognise it and automatically install the necessary USB drivers.
► Connect the IO-Link device with the IO-Link master.

▷ The IO-Link master supplies the connected IO-Link device with the required operating voltage.
7.1 Installing ifm moneo|configure free
ifm moneo|configure free is used for parameter setting of the IO-Link master and the connected IOLink device. In addition, moneo|configure free allows for visualisation of the process data of IO-Link master and IO-Link device.
► Download ifm moneo|configure free: **www.ifm.com**
► Start the PC.

▶ Log in with administrator rights.

▶ Install the parameter setting software ifm moneo|configure free on the PC (Ò Installation instructions ifm moneo).

▷ ifm moneo|configure free is installed.

Parameter setting

Requirements:

✓ ifm moneo|configure is installed correctly.

✓ The IO-Link master is connected to the PC.

▶ Start ifm moneo|configure.

▷ The user interface of the parameter setting software appears.

▶ Click on the [Connected devices] tab.

▶ Click on [Network scan].

▷ A dialogue window appears.

▶ Select the [USB port (IO-Link Master E30390 and AL1060)] option and click [Scan].

▷ ifm moneo|configure searches for connected devices on the USB port.

▷ ifm moneo|configure detects the connected IO-Link master.

▷ If installed: ifm moneo|configure detects the connected IO-Link device.
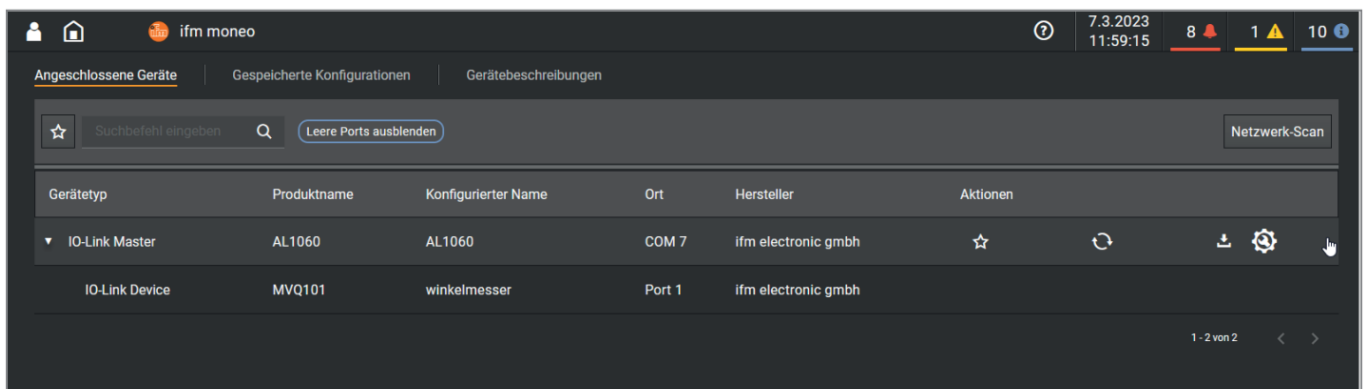
8.1 Configuring the IO-Link master

In the factory settings, the IO-Link master is configured for communication with an IO-Link device.

Requirements:

✓ ifm moneo|configure has been started.

✓ The IO-Link master has been recognised.

▶ Click on ✎ to establish a connection to the IO-Link master AL1060.

▷ The view shows the IO-Link master and the connected IO-Link device.

▶ In the line of the IO-Link master: Click on ⚙.

▷ The editor view shows the current configuration of the IO-Link master.

▶ Set the operating mode pin 4 of the IO Link port (DI /DO / IO-Link).

▶ Set the device validation and data storage.

▶ Optional: Operating mode pin 2 of the IO Link port (DI / DO)

▷ The IO-Link master has been configured.

8.2 Setting the parameters of the IO-Link device

Requirements:

✓ The IO-Link device is correctly connected to the IO-Link master.

✓ ifm moneo|configure has been started.

✓ The IO-Link master has been recognised.

✓ Operating mode pin 4 of the IO-Link port is set to IO-Link.

▶ Click on 🖱 to establish a connection to the IO-Link master AL1060.

▷ The view shows the IO-Link master and the connected IO-Link device.

▶ In the line of the IO-Link device: Click on ⚙ .

▷ The editor view shows the current configuration of the IO-Link device (example: MVQ101).
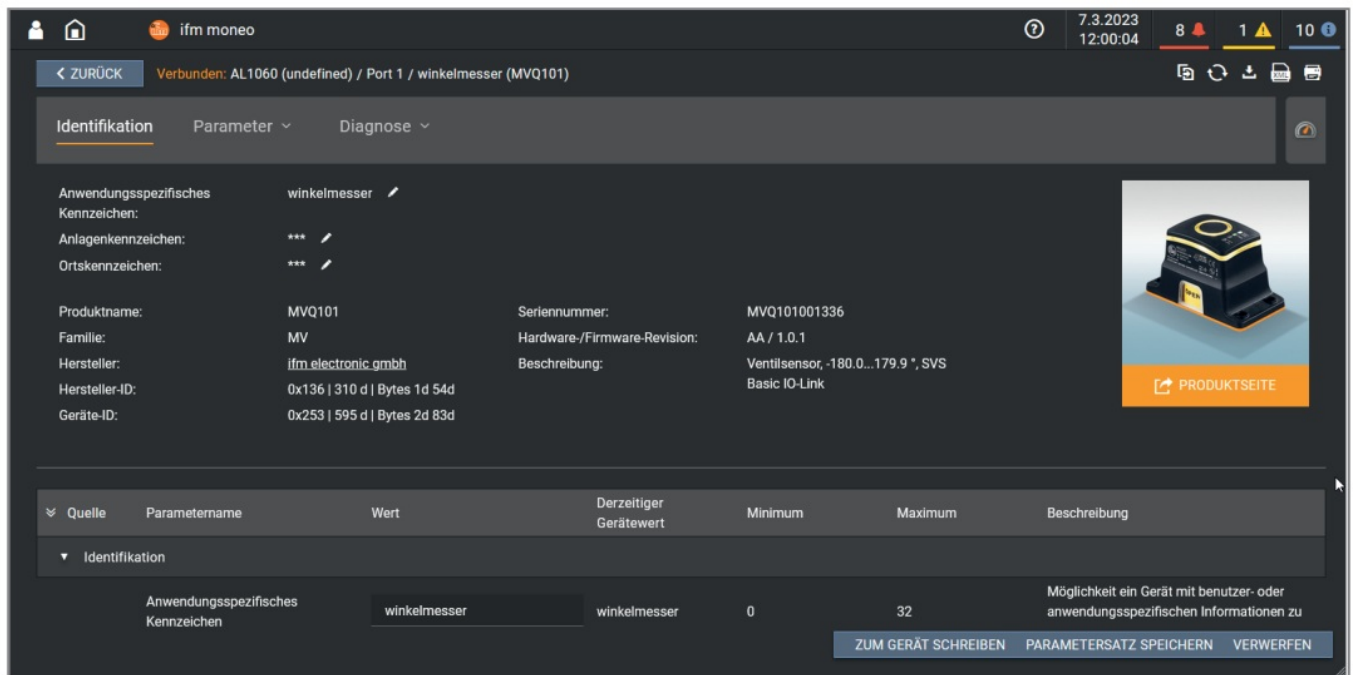
▶ Set the parameters of the IO-Link device as required.

▶ Write the changed values to the device.

▷ The parameters of the IO-Link device have been set.

Operation

9.1 Monitoring the process data

In online mode, ifm moneo|configure can graphically display the process data of the IO-Link master and the IO-Link device.

Requirements:

✓ ifm moneo|configure has been started.

✓ The IO-Link master has been configured.

✓ The parameters of the IO-Link device have been set.

✓ Connection to the IO-Link master has been established.

▶ In the line of the IO-Link master: Click on 🔧.

▷ The editor view of the IO-Link master appears.

▶ Click on 🕐.

▷ The Cockpit view appears.

▷ The [Dashboard] tab displays the current state and the chronological curve of the process data of the IO-Link master.

▷ Optional: the cockpit view provides access to the digital output signals (pin 2 / pin 4).

▶ Click on [BACK].

▶ In the line of the IO-Link device: click on 🔧.

▶ The editor view of the IO-Link device appears.

▶ Click on 🕐.

▷ The Cockpit view appears.

▷ The [Dashboard] tab displays the current state and the chronological curve of the process data of the IO-Link device.

▷ The [Events] tab provides access to the IO-Link events.

▷ The [File transfer (BLOB)] tab provides access to file transfer to and from the IO-Link device.

▷ The [Process data structure (PLC)] tab shows the structure of the IO-Link process data.

[i] The parameters that are displayed and their representation are dependent on the connected IOLink device.

Documents / Resources

	ifm ZZ1060 IO-Link Master With USB Interface Set [pdf] Instruction Manual ZZ1060 IO-Link Master With USB Interface Set, ZZ1060, IO-Link Master With USB Interface Set, Master With USB Interface Set, USB Interface Set, Interface Set, Set

References

- [icon] **Online documentation of your product - ifm**
- [icon] **ifm - automation made in Germany**
- [icon] **Online documentation of your product - ifm**
- [icon] **ifm - automation made in Germany**
- [icon] **ifm - automation made in Germany**
- **User Manual**