



Operating instructions  
IO-Link INLINE DISPLAY 1.44"

**GB**

**E30430**



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# 1 Preliminary note

You will find instructions, technical data, approvals and further information using the QR code on the unit / packaging or at [www.ifm.com](http://www.ifm.com).

## 1.1 Symbols used

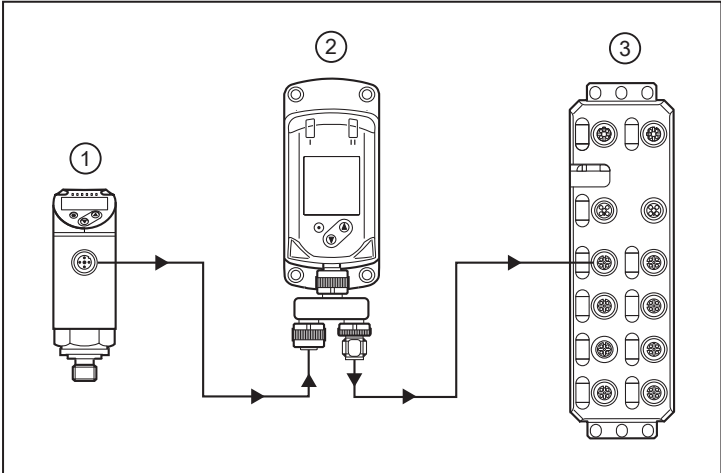
- ✓ Requirement
- ▶ Instructions
- ▷ Reaction, result
- [...] Designation of keys, buttons or indications
- Cross-reference
-  Important note  
Non-compliance may result in malfunction or interference.
-  Information  
Supplementary note

## 2 Safety instructions

- The device described is used in a system as subcomponent.
  - 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 (→ → 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 devices and cables against damage.

### 3 Intended use

The IO-Link INLINE DISPLAY is used for indicating process values and the corresponding information of a connected IO-Link sensor.



- 1: IO-Link sensor
- 2: IO-Link INLINE DISPLAY
- 3: IO-Link master

Fig. 1: Example of a system integration

## 4 Getting started

### 4.1 Set-up

No settings are necessary.



In case the connected ifm device cannot be displayed:

▶ Carry out the following steps:

Load the device catalogue in moneo configure.

Write the device catalogue to the display.



If the device is on the blacklist (= not supported), a message is indicated on the display:

▷ device not supported.

## 5 Function

During operation, the device determines the process data that is cyclically transmitted by the sensor and indicates it on the display and as LED status.

## 6 Installation

- ▶ Insert the device into the system so that no mechanical forces are exerted on the housing.
- ▶ For installation use the supplied accessories.



## 7 Electrical connection

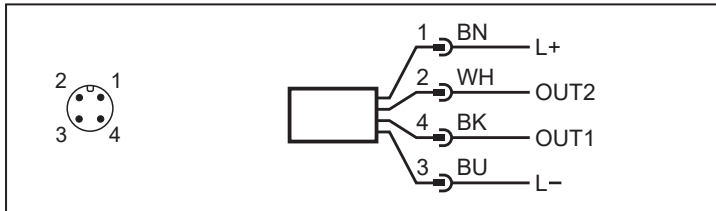


The device must be connected by a qualified electrician.

The national and international regulations for the installation of electrical equipment must be adhered to.

Supply voltage SELV, PELV according to the technical data sheet.

- ▶ Disconnect power.
- ▶ Connect the device as follows:



Pin	Core colour	
1: L+	BN	Brown
3: L-	BU	Blue
2: (OUT2)	WH	White
4: (OUT1)	BK	Black
Colours to DIN EN 60947-5-2		

## 8 Operating and display elements

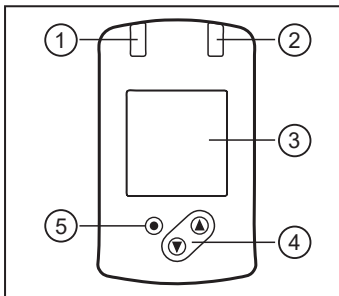
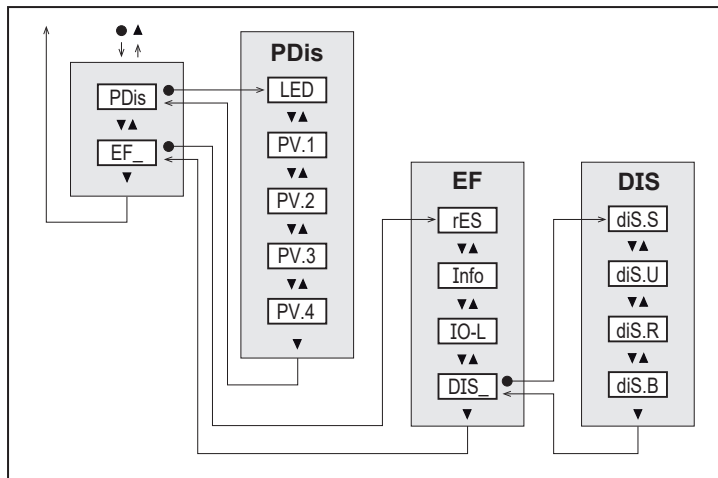


Fig. 2: Operating and display elements

<b>1, 2: Indicator LEDs</b>
<ul style="list-style-type: none"> <li>• LED 1 switching status OUT1 (is on when output 1 on the connected device is switched).</li> <li>• LED 2 switching status OUT2 (is on when output 2 on the connected device is switched).</li> </ul>
<b>3: TFT-DISPLAY</b>
<ul style="list-style-type: none"> <li>• Indication of current process values.</li> <li>• Indication of the parameters and parameter values.</li> </ul>
<b>4: Buttons up [▲] and down [▼]</b>
<ul style="list-style-type: none"> <li>• Select parameters.</li> <li>• Change parameter values (hold button pressed).</li> <li>• Switch between process value display and status display in the normal operating mode (RUN mode).</li> <li>• Locking / Unlocking (buttons pressed simultaneously &gt; 10 seconds)</li> </ul>
<b>5: Button [●] = Enter</b>
<ul style="list-style-type: none"> <li>• Change from the RUN mode to the main menu.</li> <li>• Change to the setting mode.</li> <li>• Acknowledge the set parameter value.</li> </ul>

## 9 Menu

Process value display (RUN mode)




### 9.1 Explanation main menu

PDis	Opening of the lower menu level PDis.
EF	Opening of the lower menu level EF.

### 9.2 Explanation of the process value display (PDis)

LED	Switching status LEDs: ON, OFF
PV.x	Process value display: OFF = process value is not displayed. bk / wh = black or white, depending on the setting of the background diS.S. red green yellow (x = 1...4 for the 4 process values that can be displayed).

### 9.3 Explanation extended functions (EF)

rES	Restore factory settings
Info	Device information
IO-L	IO-Link communication: ON, OFF: OFF: normal operation as passive display. ON: parameter setting or update of the device catalogue via the IODD tool <a href="http://www.ifm.com">www.ifm.com</a> .  When the device is started, this point is reset to OFF.
DIS	Opening of the lower menu level DIS.

## 10 Configuration

### 10.1 Parameter setting in general

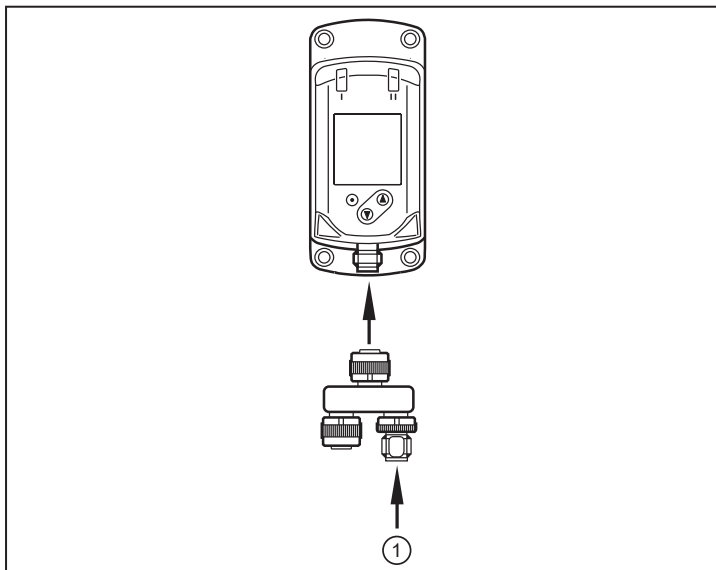
1. Change from the RUN mode to the main menu	[•]
2. Select the requested parameter	[▲] or [▼]
3. Change to the setting mode	[•]
4. Modification of the parameter value	[▲] or [▼] > 1 s
5. Apply the set parameter value	[•]
6. Return to the RUN mode	> 30 s (timeout) or press [▲] and [▼] simultaneously until the RUN mode is reached.

### 10.2 Updating the device catalogue

#### 10.2.1 System requirements

noneo version 1.9 or higher:

- ▶ Connect the display to a PC via an IO-Link master, for example AL1060.



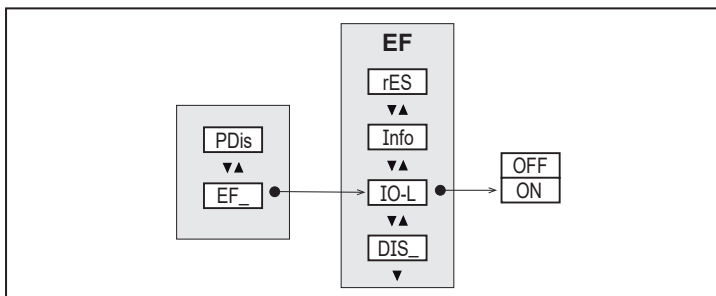
1: IO-Link master



Do not connect any device to the E30430 display.



No controller (PLC) must be connected.



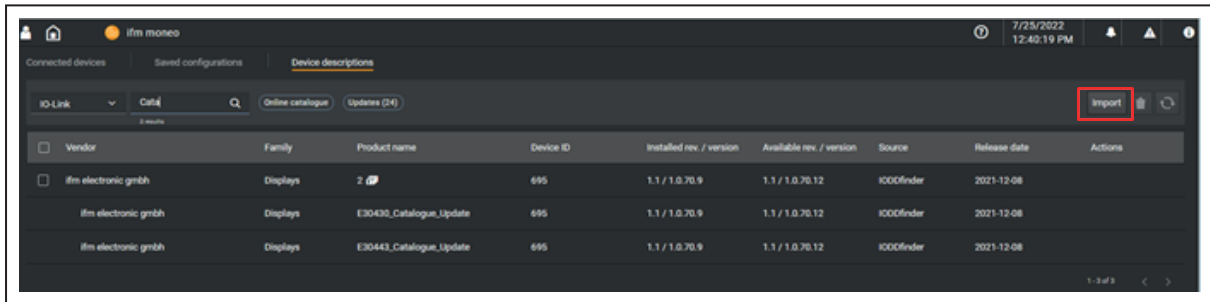
- ▶ Set the IO-Link communication to [ON].

## 10.2.2 Loading the device catalogue in moneo configure

If moneo is connected to the internet, all catalogue update files are automatically imported by the IO-Link Finder.

The catalogue update files can also be imported manually:

- ▶ Switch to the [Device description] tab.
- ▶ Click on [Import].
- ▶ Select the required IO-Link or the catalogue from the path.



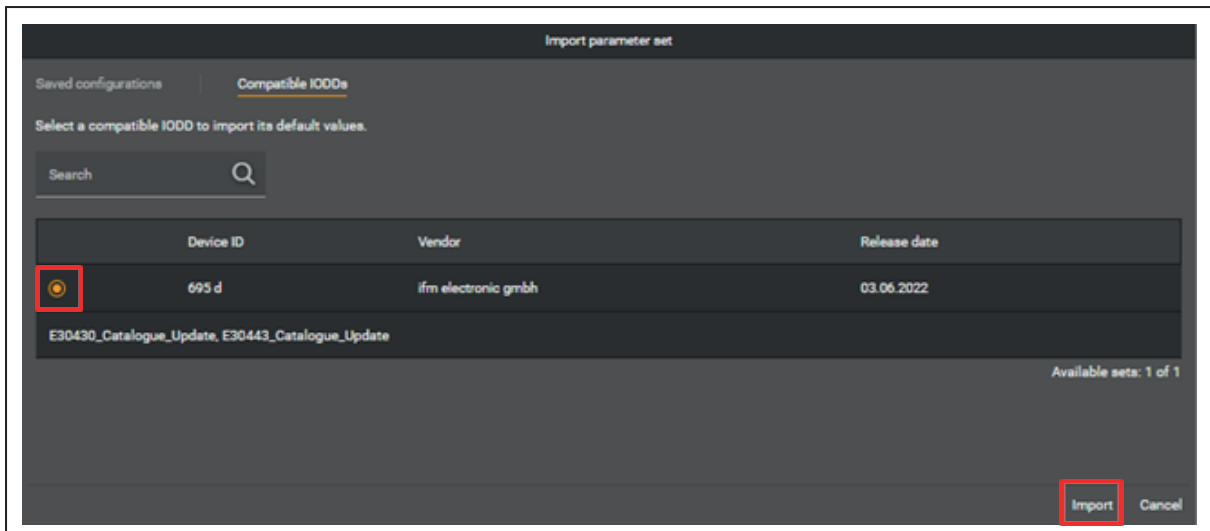
## 10.2.3 Writing the device catalogue to the display

Connect the display to an ifm AL1xxx IO-Link master and connect this master to a PC or laptop.

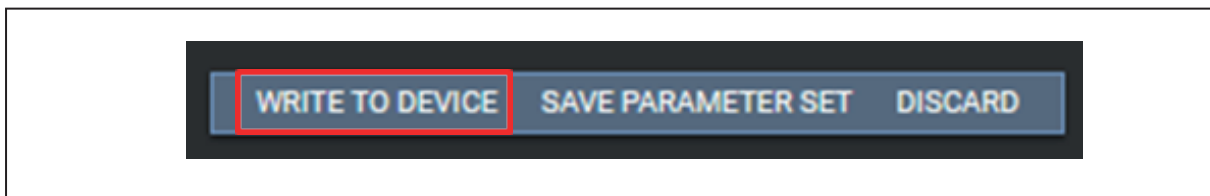
- ▶ Start moneo configure
- ▶ Carry out a network scan
- ▶ Select the corresponding ifm AL1xxx IO-Link master or, if applicable, port.
- ▶ Read the display settings



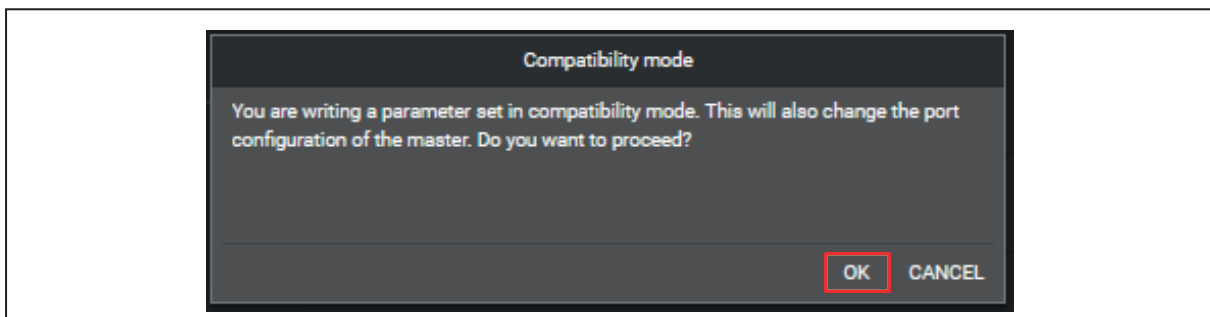
- ▶ When the display is shown in the moneo software, click on [Import] at the top right.



- ▶ In the [Compatible IOODs] tab, select the device catalogue and confirm with [Import].



- ▶ Write the device catalogue to the display.
- ▷ A note on the compatibility mode of the AL master is displayed. The port configuration of the master port is automatically reconfigured. If necessary, this should be changed back after the write process.

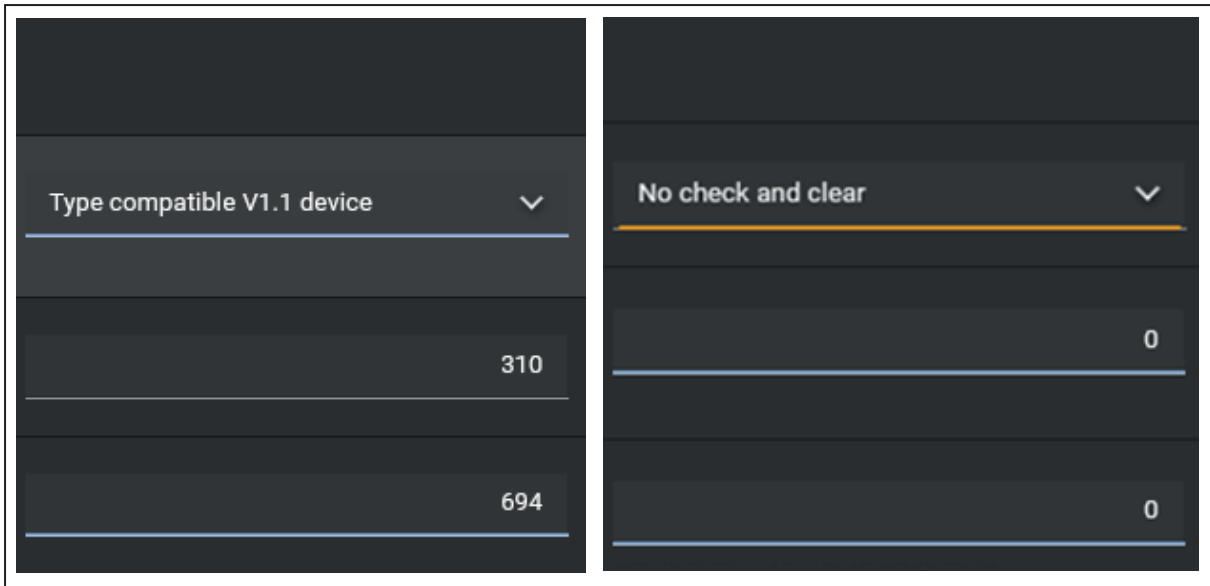


- ▶ Acknowledge with [OK].
- ▷ When the write process is finished, the new device catalogue is integrated in the display.
- ⚠ Do not disconnect the display from the IO-Link master during the write process. Otherwise the update of the device catalogue is faulty and needs to be repeated.
- ▶ Restart the INLINE DISPLAY with [Power Off / On] (note port configuration).

### 10.2.4 Resetting the AL master port

When the catalogue is written, the master port switches to compatibility mode. This is necessary for the AL IO-Link master to be able to transfer the catalogue to the display.

- ▶ Via moneo, switch to the settings of the AL master and set the port back to the original setting or [No check and clear]. If necessary, set the vendor and device ID to default.



► Load the settings back to the AL master.



# 11 Troubleshooting

## 11.1 Warning messages

	Indication	Description	Type	Instruction
1	ERROR	Device faulty / malfunction	Error	► Replace device
2	(off)	Supply voltage too low	Error	► Ensure a voltage supply with a sufficiently available current. (18...30 V DC)
3	PARA	Parameter setting outside the valid range	Error	1. Save the parameter settings 2. Restore the factory settings 3. Enter parameters again
	PARA invalid device catalogue, try catalogue update			Device catalogue no longer up to date ► Reinstall device catalogue
4	no connection	No IO-Link connection between the master and the device was found	Error	<ul style="list-style-type: none"> <li>• If the device is only connected to a power supply, this status is normal</li> <li>• If parameter IO-Link = OFF: ► Check the cable connections and the function of the connected IO-Link participants ► If necessary, re-establish the communication</li> </ul>
5	invalid	Invalid flag of the process data (PDV) is set. Indicated in the process value line.	Error	The process value of the connected device is marked as invalid ► Check the connected device
6	unsupported device of vendor <xxx>	No process data description for the device available	Error	The connected device is not in the device catalogue
	unknown ifm device try catalogue update			Device catalogue no longer up to date ► Device catalogue update: device catalogue download for ifm devices at <a href="http://www.ifm.com">www.ifm.com</a>
7	invalid process data description	The process data description does not match the communication content	Error	Process data recognition error ► Restart the communication with the connected device, e.g. by disconnecting and reconnecting the device
8	Loc	The setting buttons on the device are locked, parameter change rejected	Warning	► Unlock device
9	C.Loc	Parameter setting via buttons disabled, parameter setting via IO-Link communication is active	Warning	► Wait until the parameter setting via the remote participant is finished
10	S.Loc	Setting buttons locked via parameter setting software, parameter change rejected	Warning	► Unlock the setting buttons via the parameter setting software
11	no process data available	No process data is available	Warning	The device is in the pre-operate mode ► Wait until the connection is established



## 12 Maintenance, repair and disposal

The unit is maintenance-free.

- ▶ Contact ifm in case of malfunction.
- ▶ Do not open the housing as the unit does not contain any components which can be maintained by the user. The unit must only be repaired by the manufacturer.
- ▶ Clean the device using a dry cloth.
- ▶ Dispose of the unit in accordance with the national environmental regulations.