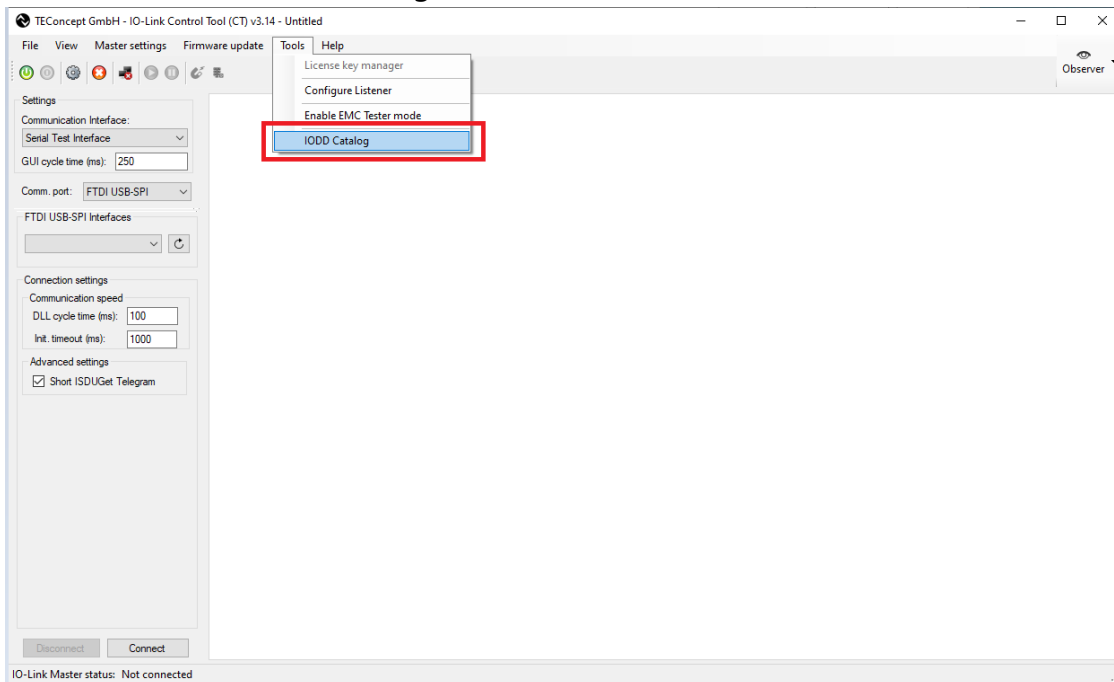


IO-LINK devices parameters configuration tool (ADP-ULKCFG)

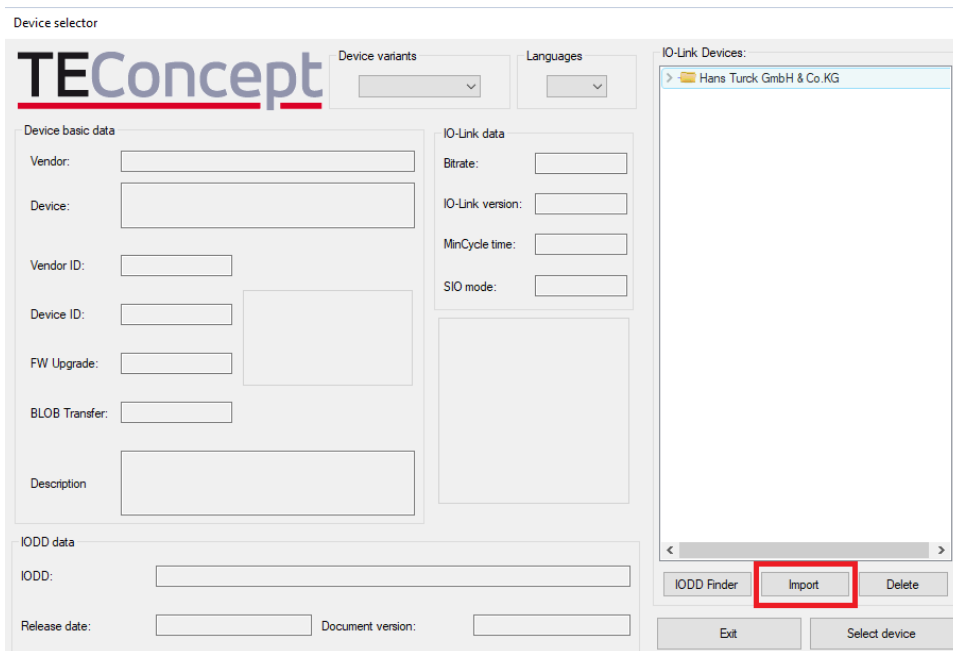
In addition to the cyclic data (PDOs) that the PLC reads during the standard communication method, there are additional “settings parameters” for the IO-Link sensor/device that are defined in the IODD file and can be set Using our **ADP-ULKCFG** hardware tool via “IO-Link control tool” software.

Procedure

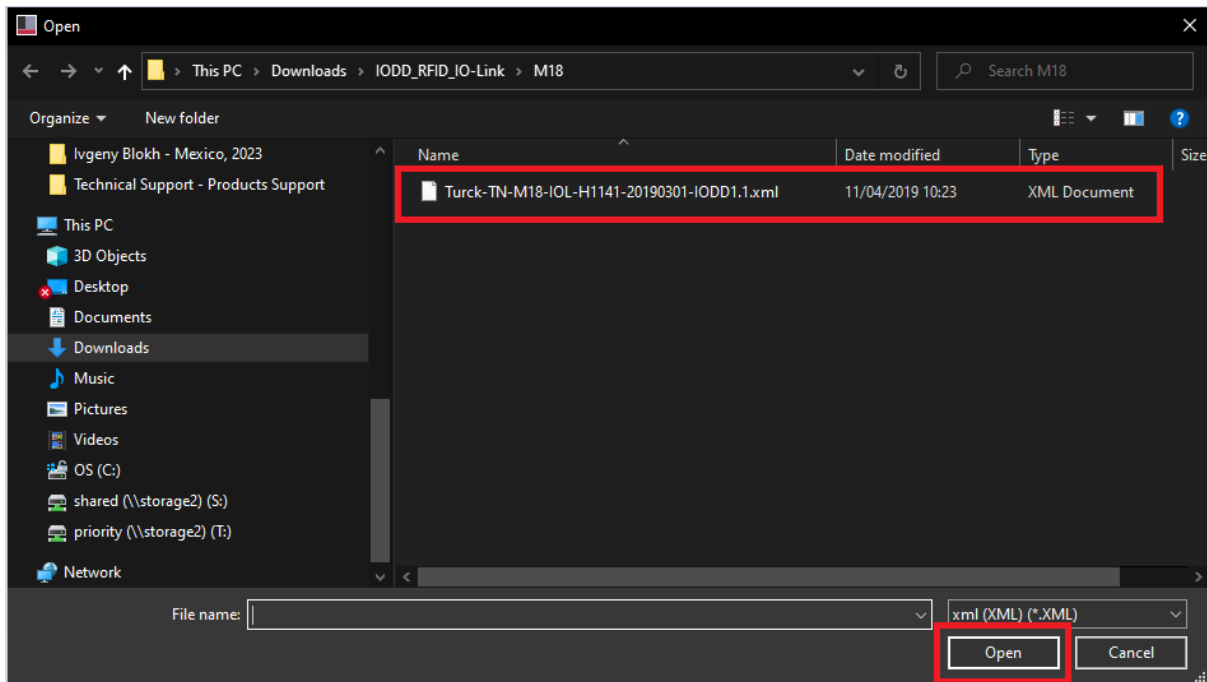
- Open the software (IO-Link control tool) , select "Tools" in the menu bar, and click the "IODD Catalog" button.



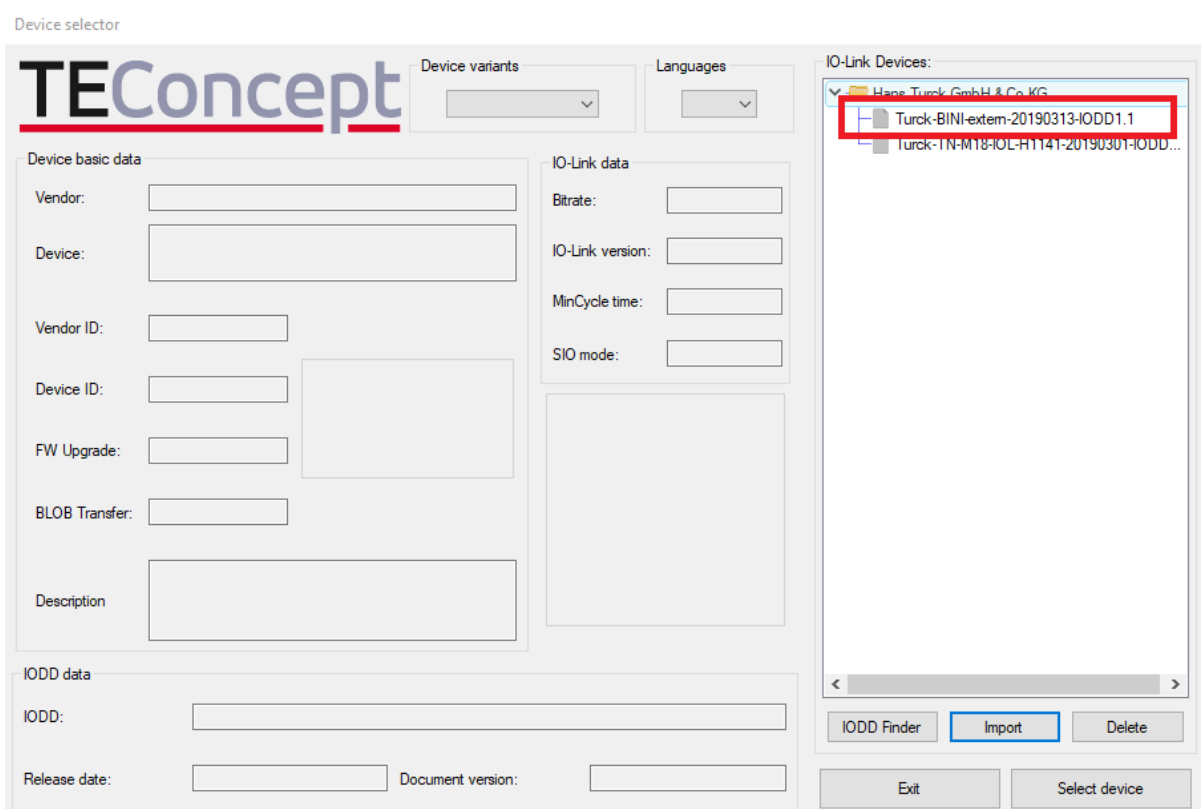
- Enter the Device selector interface and click the "Import" button.



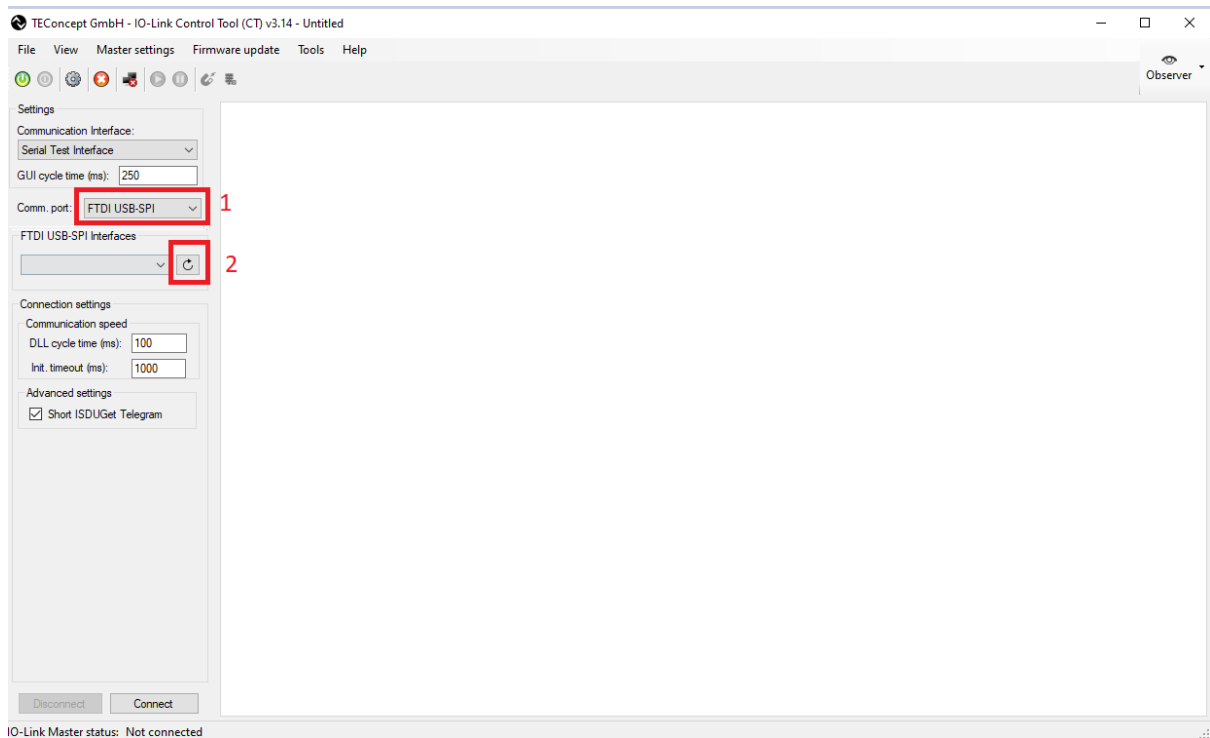
- Find the IODD file of your IO-LINK device, click on the file, and click to open.



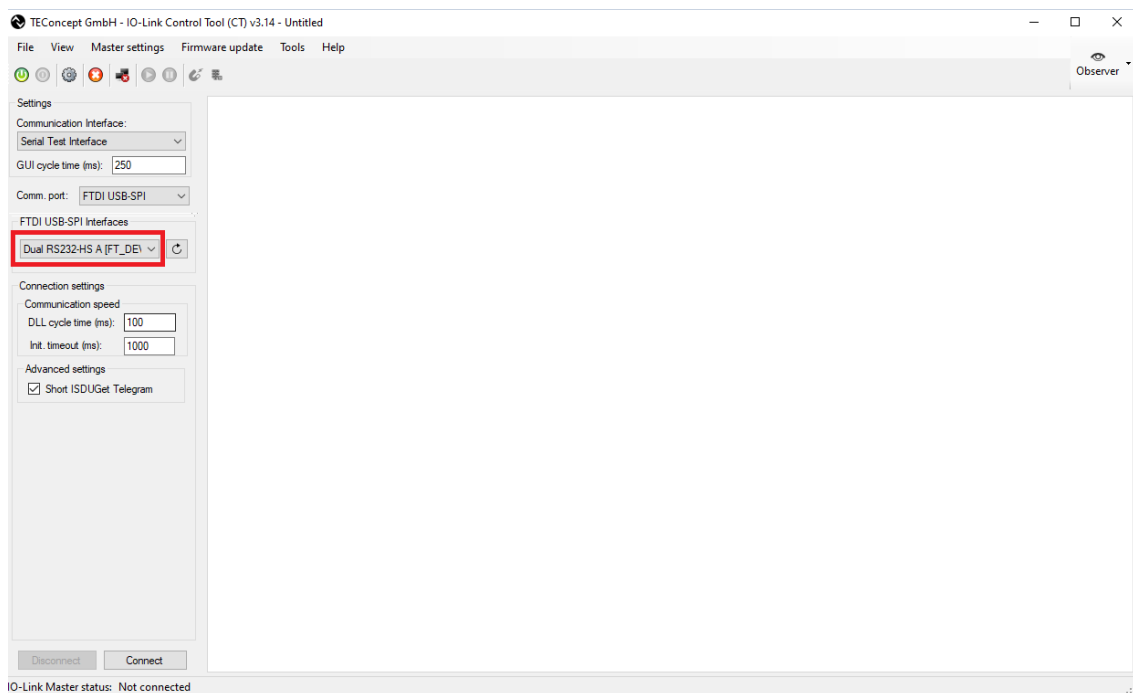
- Now you can see the device added to the list.



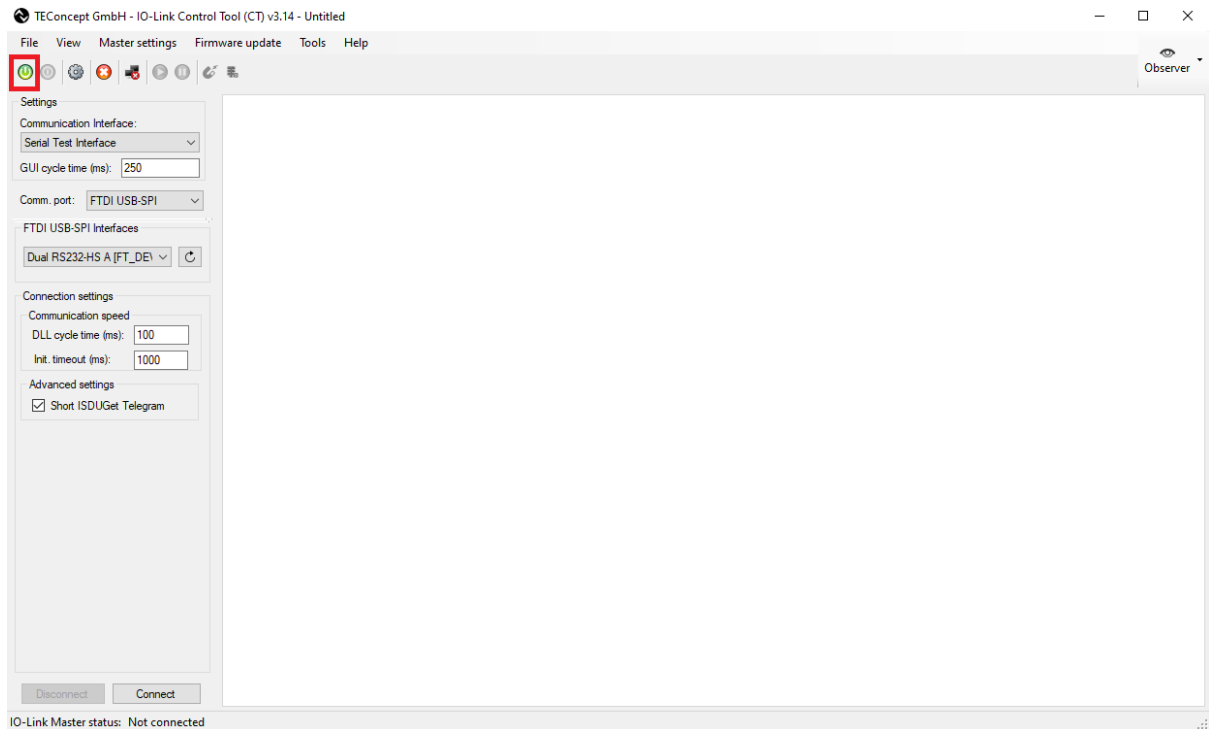
- Insert the USB-IOLINK-MASTER (ADP-ULKCFG) into the PC USB port + feed the additional power wires with 24VDC.
- Select FTDI USB-SPI for the comm port.
- Click the refresh data.



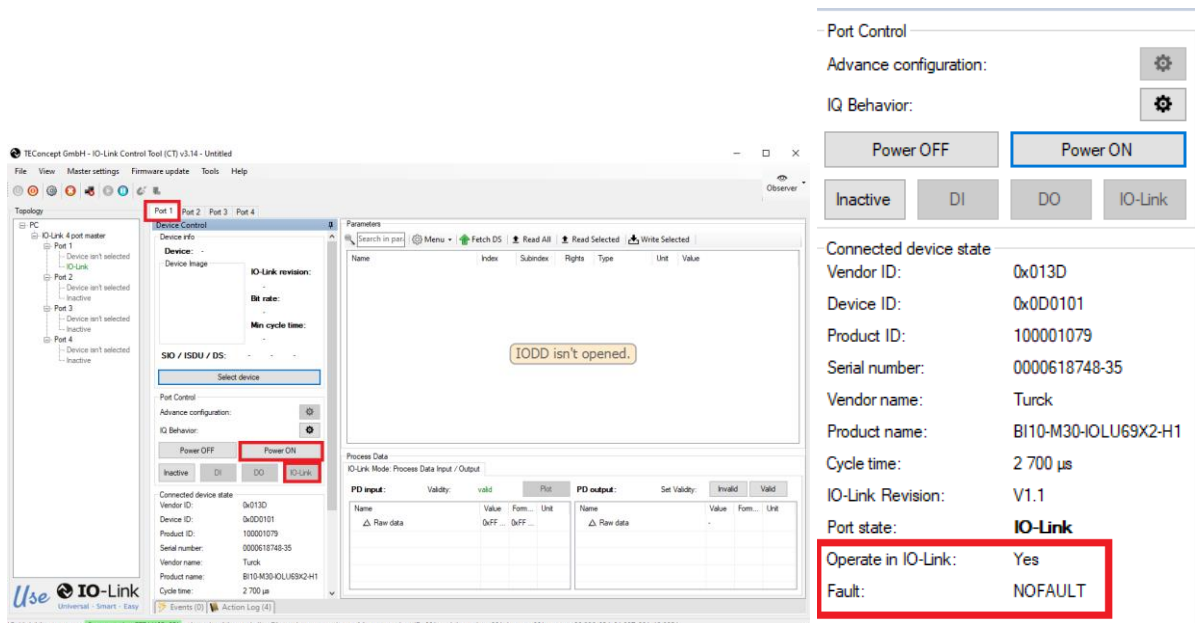
- If the master is recognized by the PC the configurator will be refreshed, and you get the interface recognition, in most cases, you need to choose “Dual RS232-HS A” .



- Click the connect button to connect.



- Make sure your IO-Link device is connected to **ADP-ULKCFG** port.
- Select Port 1 and click the “Power ON” button to power your IO-Link device.
- Click IO-Link if needed.
- If connection is achieved you will get the statuses as in the below right picture.



- Click the Read All button to upload all parameters to the software
- Uploaded parameters include identification data, and parameter data

TEConcept GmbH - IO-Link Control Tool (CT) v3.14 - Untitled

File View Master settings Firmware update Tools Help

Topology

PC

IO-Link 4 port master

Port 1

BI3-M12-IOLU69X2-H11

IO-Link

Port 2

Device isn't selected

Inactive

Port 3

Device isn't selected

Inactive

Port 4

Device isn't selected

Inactive

Device Control

Device info

Device: BI3-M12-IOLU69X2-H1141

Device Image

IO-Link revision:

V11

Bit rate:

COM2

Min cycle time:

2700 µs

SIO / ISDU / DS: ✓ ✓ ✓

Select device

Port Control

Advance configuration:

IQ Behavior:

Power OFF Power ON

Inactive DI DO IO-Link

Connected device state

Vendor ID: 0x013D

Device ID: 0x0D0101

Product ID: 100001079

Serial number: 0000618748-35

Vendor name: Turk

Product name: BI10-M30-IOLU69X2-H114

Cycle time: 2 700 µs

Parameters

Search in par Menu Fetch DS Read All Read Selected Write Selected

Name	Index	Subindex	Rights	Type	Unit	Value
Identification Menu						
var Vendor Name	16	0	RO	String		Turk
var Vendor Text	17	0	RO	String		www.turk.com
var Product Name	18	0	RO	String		BI10-M30-IOLU69X2-H1141
var Product ID	19	0	RO	String		100001079
var Product Text	20	0	RO	String		Analog inductive
var Serial Number	21	0	RO	String		0000618748-35
var Hardware Version	22	0	RO	String		V1.0
var Firmware Version	23	0	RO	String		V1.0.0.0
var Application Specific Tag	24	0	RW	String		...
Parameter Menu						
System Commands						
var Restore Factory Settings	2	0		Button		Restore Factory Settings
var Data Storage Lock	12	2	NA	Boolean		false
var Damping (ms)	82	0	RW	Unsigned Integer		0
var teach state	258	0	RO	Unsigned Integer		last teach invalid (0)

Process Data

IO-Link Mode: Process Data Input / Output

PD input: Validity: valid

Plot

- The status and output values can be monitored in real-time below (PDOs cyclic data)

TEConcept GmbH - IO-Link Control Tool (CT) v3.14 - Untitled

File View Master settings Firmware update Tools Help

Topology

PC

IO-Link 4 port master

Port 1

BI3-M12-IOLU69X2-H11

IO-Link

Port 2

Device isn't selected

Inactive

Port 3

Device isn't selected

Inactive

Port 4

Device isn't selected

Inactive

Device Control

Device info

Device: BI3-M12-IOLU69X2-H1141

Device Image

IO-Link revision:

V11

Bit rate:

COM2

Min cycle time:

2700 µs

SIO / ISDU / DS: ✓ ✓ ✓

Select device

Port Control

Advance configuration:

IQ Behavior:

Power OFF Power ON

Inactive DI DO IO-Link

Connected device state

Vendor ID: 0x013D

Device ID: 0x0D0101

Product ID: 100001079

Serial number: 0000618748-35

Vendor name: Turk

Product name: BI10-M30-IOLU69X2-H114

Cycle time: 2 700 µs

IO-Link Revision: V1.1

Port state: IO-Link

Operate in IO-Link: Yes

Fault: NOFAULT

Parameters

Search in par Menu Fetch DS Read All Read Selected Write Selected

Name	Index	Subindex	Rights	Type	Unit	Value
Identification Menu						
var Vendor Name	16	0	RO	String		Turk
var Vendor Text	17	0	RO	String		www.turk.com
var Product Name	18	0	RO	String		BI10-M30-IOLU69X2-H1141
var Product ID	19	0	RO	String		100001079
var Product Text	20	0	RO	String		Analog inductive
var Serial Number	21	0	RO	String		0000618748-35
var Hardware Version	22	0	RO	String		V1.0
var Firmware Version	23	0	RO	String		V1.0.0.0
var Application Specific Tag	24	0	RW	String		...
Parameter Menu						
System Commands						
var Restore Factory Settings	2	0		Button		Restore Factory Settings
var Data Storage Lock	12	2	NA	Boolean		false

Process Data

IO-Link Mode: Process Data Input / Output

PD input: Validity: valid

Plot

Name	Value	Formatted Value	Unit
var Process Data In			
var Analog signal	4095	4095	
var Target Out Of Range Warning	Target Out Of Range (true)	Target Out Of Range (true)	
var High Temperature Warning	Temperature Ok (false)	Temperature Ok (false)	
var Low Temperature Warning	Temperature Ok (false)	Temperature Ok (false)	
var Output State	Output On (true)	Output On (true)	

You can change the parameter values as you need and write them to the sensor, those parameters are “settings parameters” and not PDOs that are used in a standard cyclic communication phase with the PLC.

The screenshot displays the TEConcept GmbH IO-Link Control Tool (CT) v3.14 interface. The interface is divided into several sections:

- Topology:** A tree view on the left showing the IO-Link 4 port master and its connections to Port 1, Port 2, Port 3, and Port 4. Port 1 is connected to BI3-M12-IOLU69X2-H11, while Ports 2, 3, and 4 are inactive.
- Device Control:** A central panel showing device information for BI3-M12-IOLU69X2-H1141. It includes fields for IO-Link revision (V11), Bit rate (COM2), and Min cycle time (2700 µs). There are also checkboxes for SIO / ISDU / DS and a 'Select device' button.
- Parameters:** A table on the right listing various parameters. The table has columns for Name, Index, Subindex, Rights, Type, Unit, and Value. A 'Write Selected' button is highlighted in red. Below the table, there is a 'Process Data' section showing IO-Link Mode: Process Data Input / Output and a 'PD input' table.

The 'Parameters' table is as follows:

Name	Index	Subindex	Rights	Type	Unit	Value
var Application Specific Tag	24	0	RW	String		...
Parameter Menu						
System Commands						
var Restore Factory Settings	2	0	Button			Restore Factory Settings
var Data Storage Lock	12	2	NA	Boolean		false
var Damping (ms)	82	0	RW	Unsigned Integer		0
var teach state	258	0	RO	Unsigned Integer		last teach invalid (0)
var Operation Mode	61	2	RW	Unsigned Integer		Single Point Mode (1)
Digital Output Configuration						
var Inversion	61	1	RW	Unsigned Integer		Normally Close (1)
var Hysteresis Value	61	3	RW	Unsigned Integer		Normally Open (0)
var PNP/NPN	61	4	RW	Unsigned Integer		PNP (0)
Digital Output Configuration						
var Inversion	61	1	RW	Unsigned Integer		Normally Close (1)

The 'Process Data' section shows IO-Link Mode: Process Data Input / Output. The 'PD input' table is as follows:

Name	Value	Formatted Value	Unit
var Process Data In			
var Analog signal	4095	4095	
var Target Out Of Range Warning	Target Out Of Range (true)	Target Out Of Range (true)	
var High Temperature Warning	Temperature Ok (false)	Temperature Ok (false)	
var Low Temperature Warning	Temperature Ok (false)	Temperature Ok (false)	
var Output State	Output On (true)	Output On (true)	