

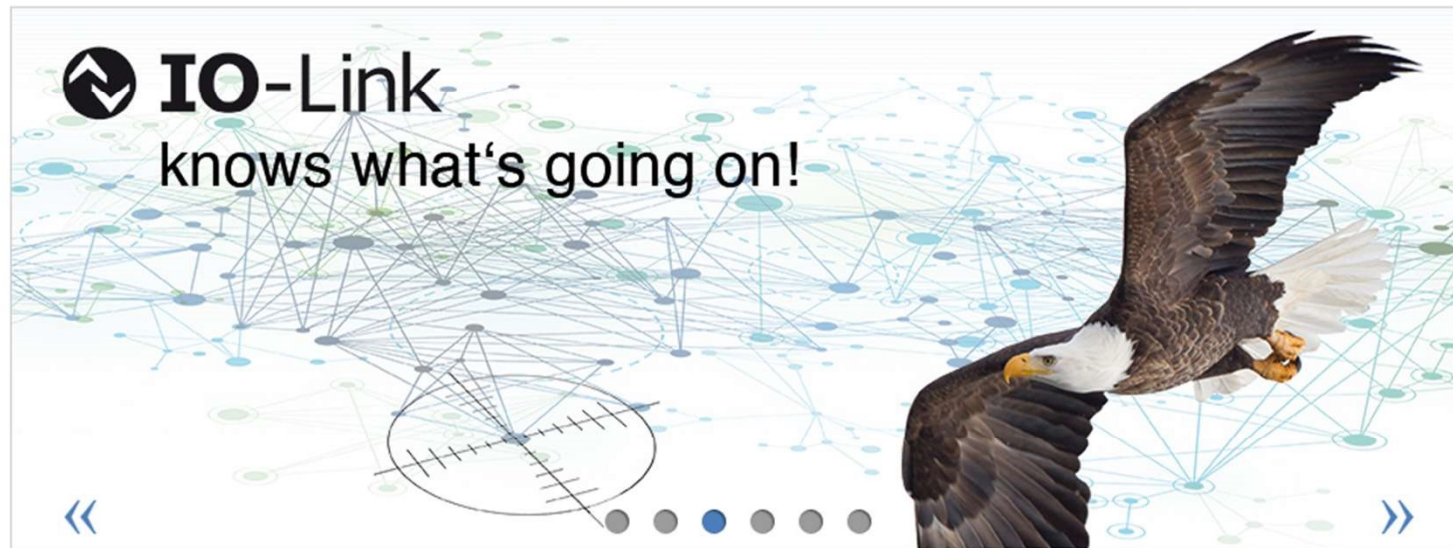
IO-Link portfolio

The Phoenix Contact IO-Link portfolio





What is IO-Link



News

03.05.2021 [IO-Link on course for growth](#)

Events

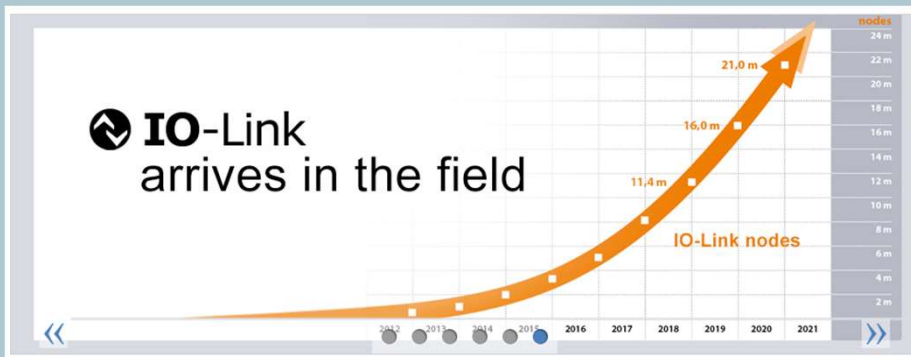
[IO-Link Interop Workshop 2021](#)

IO-Link portfolio

Fast growing communication standard of industrial automation

Market trend

End of 2018 there have been about 11,40 million IO-Link devices in use. Now 2021 > 21 m



Source: www.io-link.com

Success factors

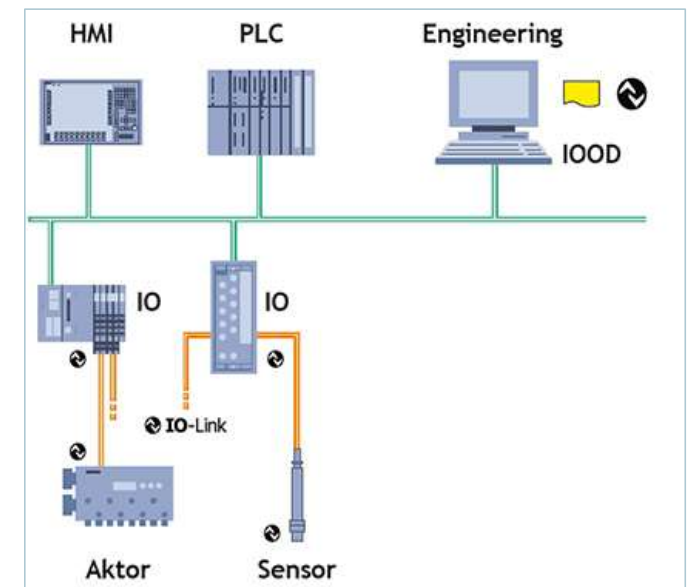
- ✓ **Open** standard IEC 61131-9
- ✓ **Simple**, significantly reduced number of interfaces on the sensors/actuators
- ✓ **Consistent** communication between sensors/actuators and the PLC
- ✓ **Cost-effective** because of non-shielded cabling

IO-Link portfolio

Components of an IO-Link system

An IO-Link system basically consists of the following components:

- IO-Link master ✓
- IO-Link device (e.g. sensors, RFID reader, valves, motor starter, I/O modules) ✓
- Unshielded 3- or 5-wire standard cables ✓
- Engineering tool for project planning and parameterization of IO-Link ✓



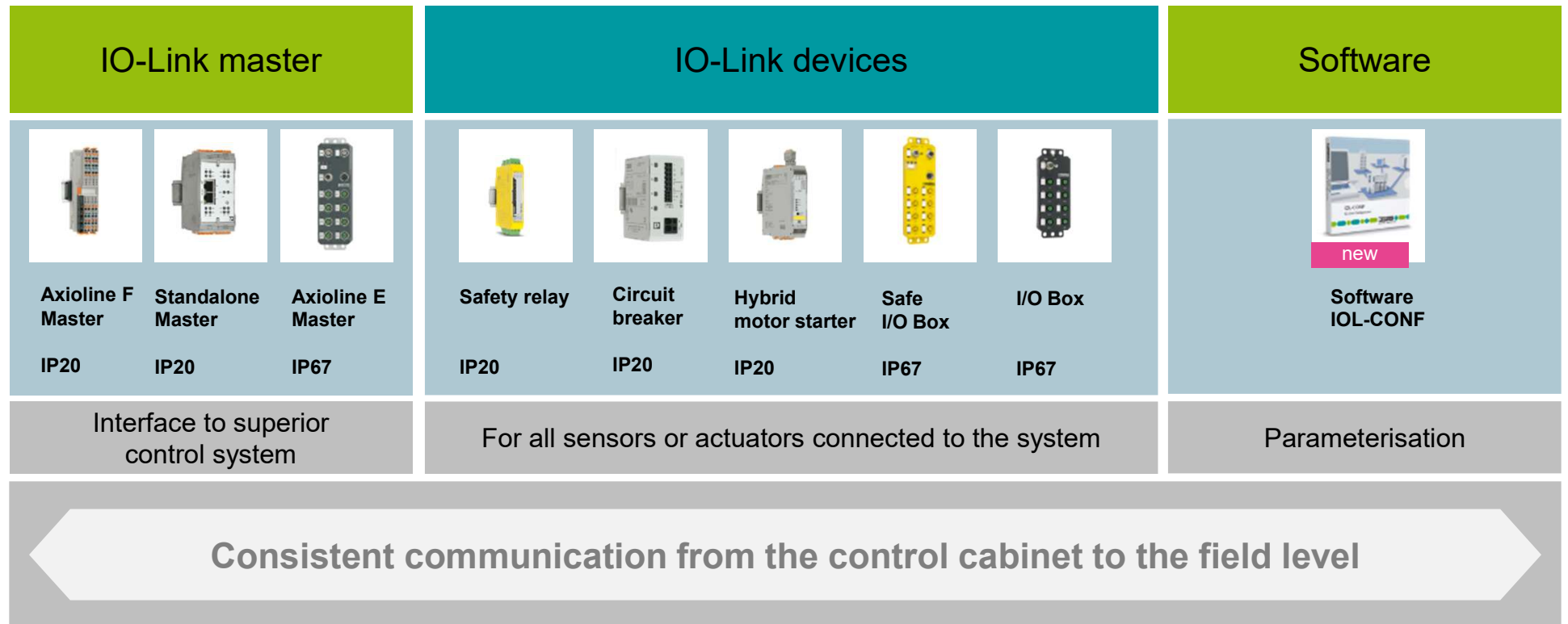
Source: www.io-link.com



IO-Link
PHOENIX CONTACT

IO-Link portfolio

The Phoenix Contact IO-Link portfolio



Standalone IO-Link master

- 8 IO-Link Ports
- 4 additional digital inputs
- Configuration by web server
- IO-Link V1.1 compatible

IOL MA8 PN DI8 (1072838) for PROFINET
IOL MA8 EIP DI8 (1072839) for Ethernet/IP™



IO-Link Master
Stand Alone



IO-Link portfolio

Axioline F IO-Link master

IO-Link master for Axioline F I/O system

- 8 IO-Link ports type A
- IO-Link V1.1 compatible
- 200 mA at C/Q, 2A at L+/L- (total 8A)

Order information:

AXL F IOL8 2H (1027843)

Total functionality only with AXL F ETH BK



IO-Link portfolio

Axioline SE IO-Link master

IO-Link master for Axioline F I/O system

- 4 IO-Link ports type A
- IO-Link V1.1.2 compatible
- 3 conductor
- Sensor current per channel: max. 500 mA (from L+/L-)



Order information:

AXL SE IOL4 (1088132)

Total functionality only with AXL F ETH BK

AXL SE IOL4

Features

- Connection of 4 IO-Link devices
- Alternatively: connection of one digital sensor or actuator per port
- Connection of IO-Link devices in 3-conductor technology
- Connection of sensors in 3-conductor technology
- Connection of actuators in 2- and 3-conductor technology
- Parameter data storage on the master
- IO-Link specification V1.1.2
- Substitute value behavior of inputs and outputs can be parameterized for each port
- IOL-CONF supported
- Device rating plate stored

The following bus couplers do not support operation of the IO-Link master:

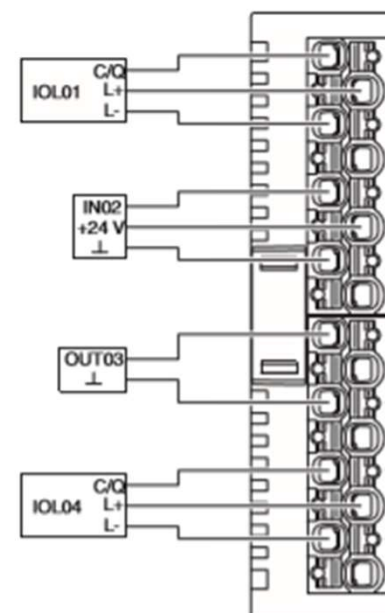
- AXL F BK PN
- AXL F BK PN TPS with HW/FW < 03/1.20
- AXL F BK PB
- AXL F BK S3
- AXL F BK SAS

To use the IO-Link master under PROFINET, use one of the following PROFINET bus couplers:

- AXL F BK PN TPS with HW/FW ≥ 03/1.30
- AXL F BK PN TPS XC

8 Connection example

Figure 3 Connection example



In the connection example, two IO-Link devices are used which are operating in IO-Link mode.

Additionally, a digital sensor and a digital actuator are used in the example. They are being operated in DI and DO mode.

IO-Link portfolio

Axioline E IO-Link master

IO-Link master for Axioline E I/O system

- 4 IO-Link ports type A, 4 IO-Link Ports type B
- IO-Link V1.1 compatible
- M12 power connector

Order information:

AXL E xx IOL8 DI4 M12 6M (metal housing)

AXL E xx IOL8 DI4 M12 6P (plastic housing)

Available



Software IOL-CONF

- Configuration of each IO-Link Device
- Easy integration of IODD
- Visualization of device process data



IO-Link portfolio

Axioline E IO-Link I/O Boxes

I/O Boxes for digital inputs and outputs in the field

- IO-Link V1.1 compatible
- 8 or 16 digital input channels
- 8 digital output channels

Order information:

AXL E IOL DI8 M12 6P (2702658)

AXL E IOL DI16 M12 6P (2702660)

AXL E IOL DO8 M12 6P (2702659)

Available



IO-Link portfolio

Axioline E IO-Link Converter

Converter for analog Signals to IO-Link

- Input / output for analog signals (voltage / ampere)
- Input / output for temperature signals (RTD)
- 4 TC-Input channels (Type K)

Order information:

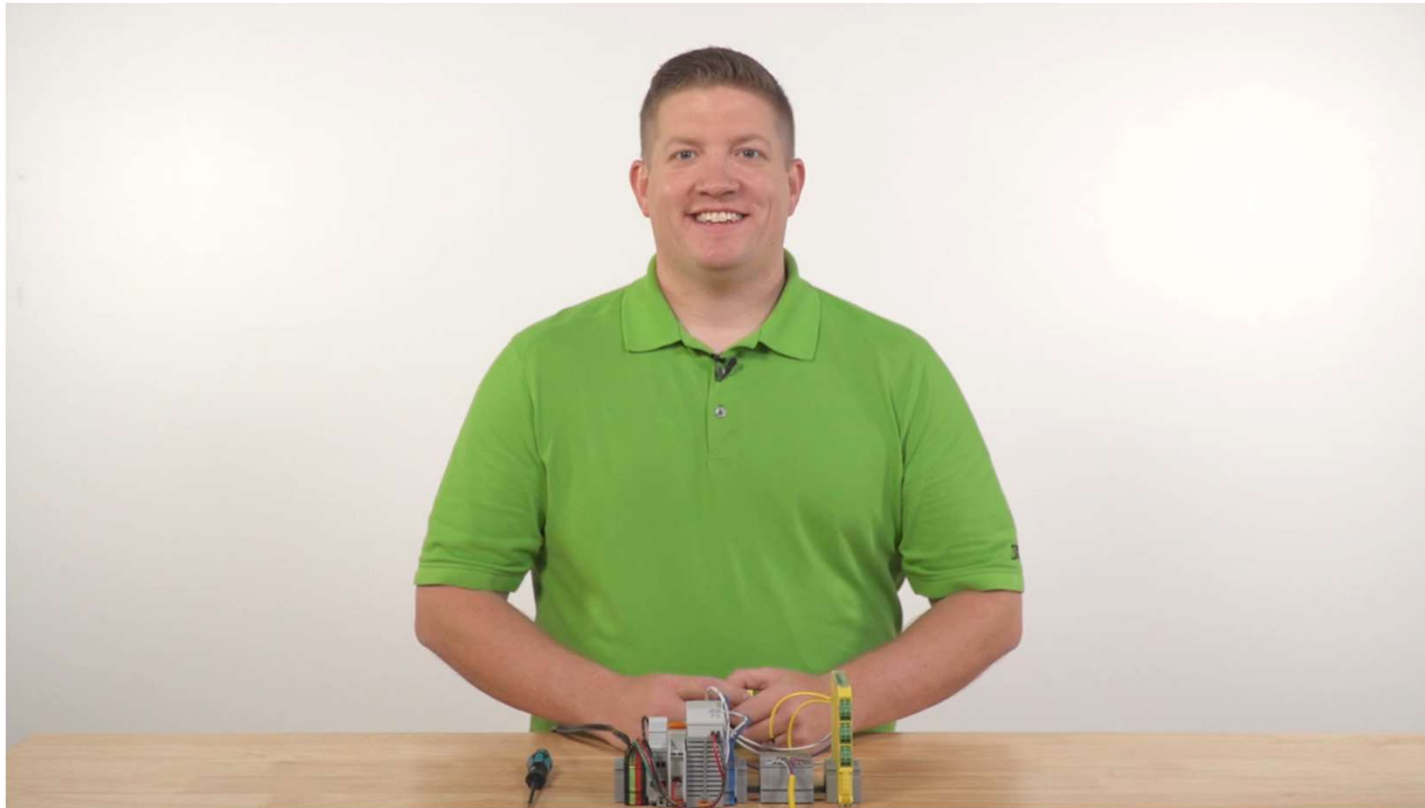
AXL E IOL TC4 K M12 (2702983)

AXL E IOL Ax....

AXL E IOL RTD...

Available





PSR-MC40 PSR SWITCH

IO-Link portfolio

Non-contact safety switch with diagnostics

Available

Non-contact safety switch PSRswitch with safety relay PSRmini

- Up to 32 switches in line
- Additional input for safety switch
- Combination with safety relay PSRmini PSR-MC42 for intelligent diagnostics via IO-Link

Order information:

PSR-MC42-2NO-1DO-24DC-SC (2702901, 2702902)

PSR-CT-F-SEN-1-8 (2702976) Fixcode sensor

PSR-CT-C-SEN-1-8 (2702972) Unicode sensor

PSR-CT-M-SEN-1-8 (2702975) Multicode sensor

PSR-CT-C-ACT (2702973) actuator





PSR SWITCH PSR-MC42 IO-LINK

IO-Link portfolio

Axioline E Safety IO-Link I/O Box

Consult availability

IO-Link I/O Box with safety digital inputs and outputs

- Suitable for PROFI-safe or SafetyBridge Technology
- 8 digital inputs
- 4 digital outputs

Order information:

AXL E IOL SDI8 SDO4 2A M12 6P (2702833)



IO-Link portfolio

Hybrid Motor Starter with IO-Link

Available

Hybrid Motor Starter CONTACTRON pro with IO-Link interface

- Motor protection
- Current measuring
- Extended diagnostic

Order information:

ELR H5-IES-PT/500AC-3-IOL (2908669)
ELR H5-IES-PT/500AC-9-IOL (2908670)
ELR H3-IES-PT/500AC-3-IOL (2908671)
ELR H3-IES-PT/500AC-9-IOL (2908672)



IO-Link portfolio

Electronic Circuit Breaker

Circuit Breaker multichannel compact with IO-Link

- Current limitation from 1...10A or 1...4A
- Extended diagnostics
- Adjustable by button or IO-Link

Orderinformation:

CBMC E4 24DC/1-10A IOL (2910411)

CBMC E4 24DC/1-47A+ IOL (2910410)

Available

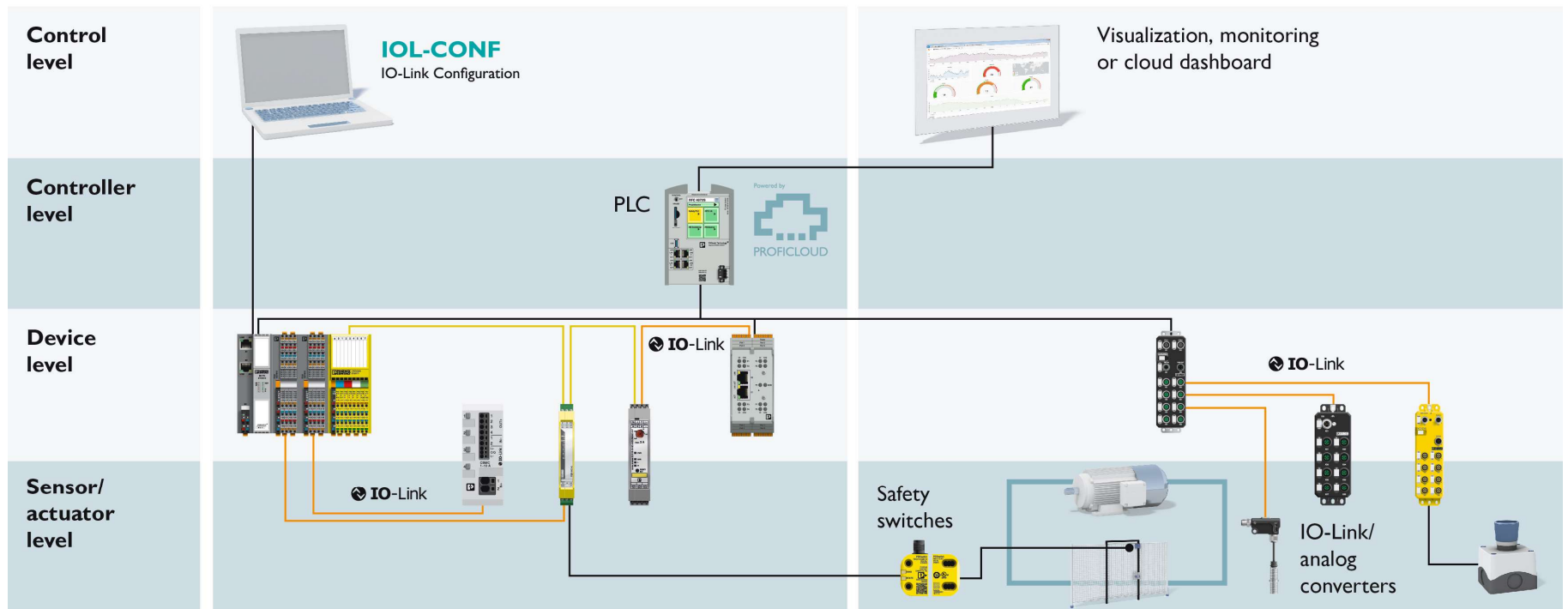


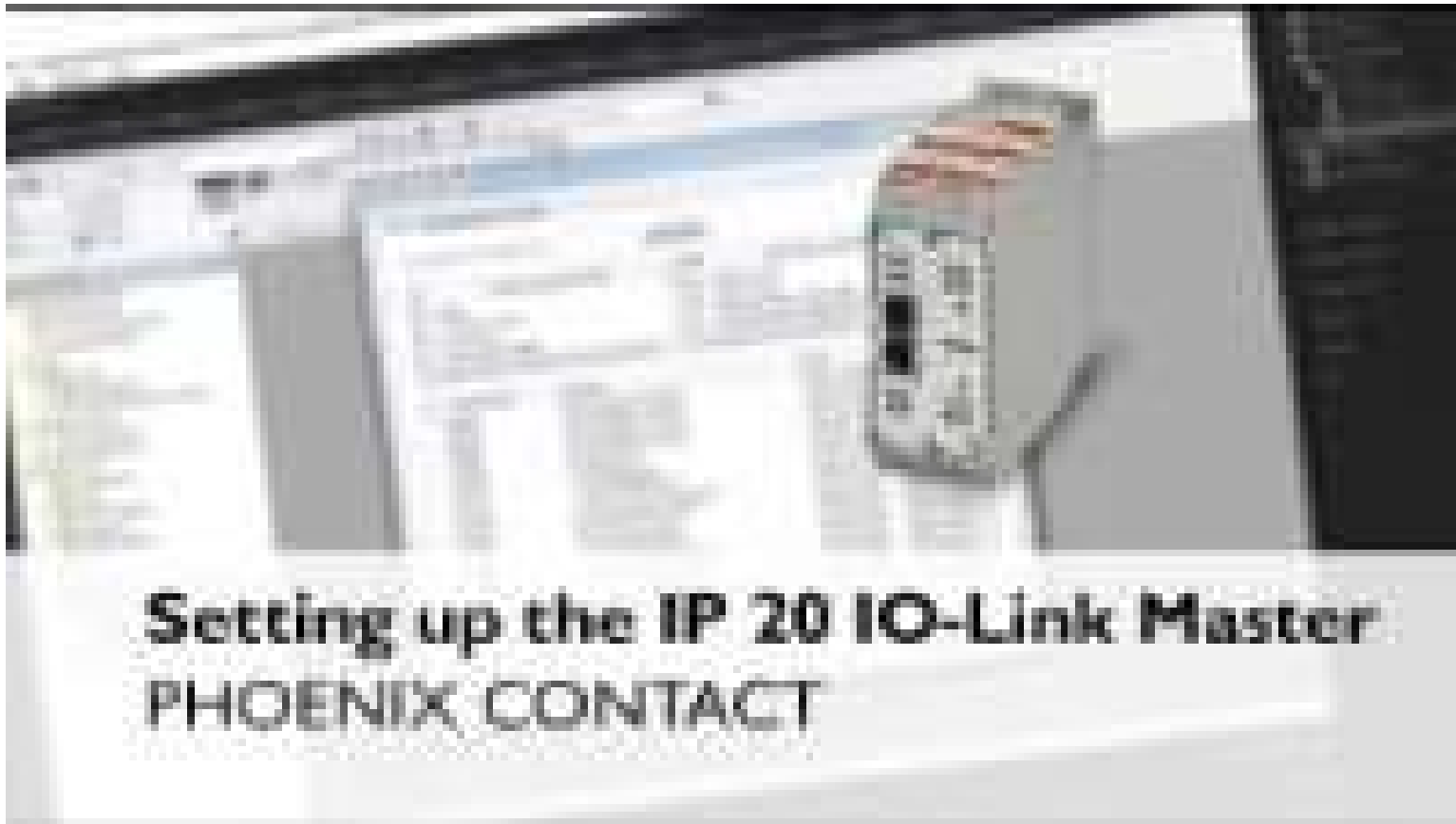
IO-Link portfolio

IO-Link products from Phoenix Contact

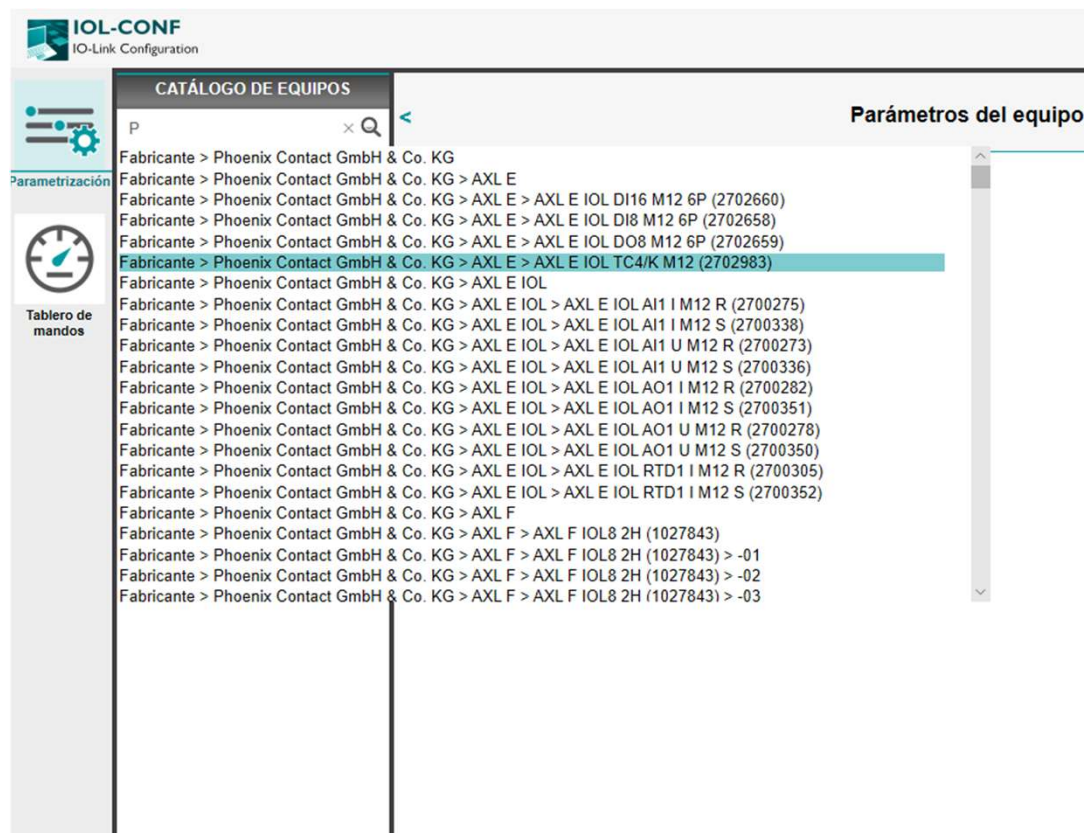
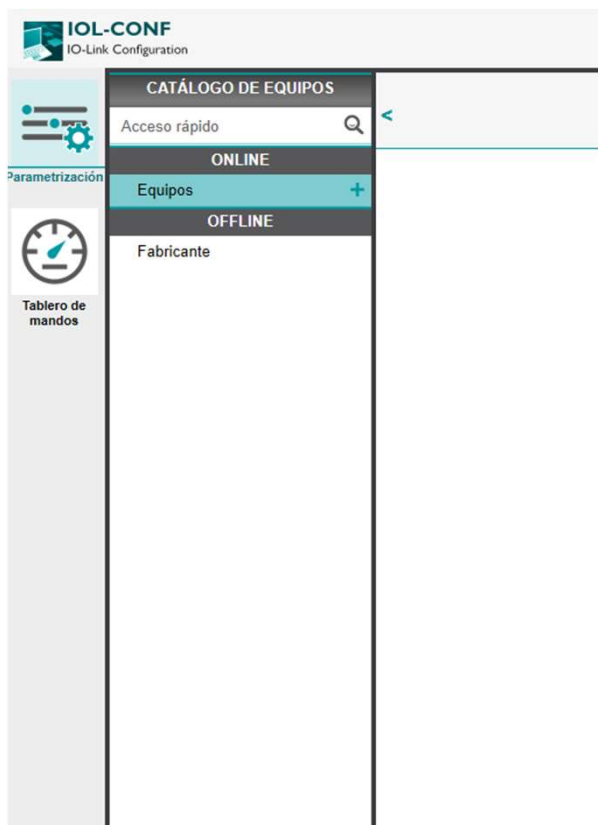
IO-Link in the control cabinet

IO-Link for field installation





Configuring IO-Link Master Phoenix Contact



IOL-CONF

IOL-CONF

Device Parameter IO-Link Device

IODD

The screenshot shows the IOL-CONF web interface. The top header includes the IOL-CONF logo and the text 'IO-Link Configuration'. A left sidebar contains three icons: a gear for 'Parametrización', a clock for 'Tablero de mandos', and a plus sign for 'Parámetros del equipo'. The main content area is titled 'CATÁLOGO DE EQUIPOS' and features a search bar with 'anix Contact GmbH & Co. KG' and a magnifying glass icon. Below the search bar are two tabs: 'ONLINE' and 'OFFLINE'. Under the 'OFFLINE' tab, there is a section for 'Fabricante' with 'Phoenix Contact GmbH & Co. KG' selected. A list of device models is displayed below the manufacturer name: AXL E, AXL E IOL, AXL F, AXL SE, Electronic Circuit Breaker, ELR 5IN1 IOL, and PSR MC. At the bottom right, there is a button labeled 'Parámetros del equipo'.



Tablero de mandos

CATÁLOGO DE EQUIPOS

Fabricante > Phoenix Contact G

ONLINE

Equipos

OFFLINE

Fabricante

Phoenix Contact GmbH & Co. KG

AXL F

AXL F IOL8 2H (1027843)

-01

-02

-03

-04

-05

-06

-07

-08

Parámetros del equipo

Todos

Parámetros

Port 1

Port 2

Port 3

Port 4

Port 5

Port 6

Port 7

Port 8



Parámetros

Nombre del equipo: AXL F IOL8 2H

Fabricante: Phoenix Contact GmbH & Co. KG

ID del equipo: 180 d (176 d)

Número de serie:

Revisión:

Descripción: IO-Link Master

Estado equipo:

Parámetros	Valor	Unidad	Min	Máx	Descripción
Port1 mode	DI				Port mode
Port2 mode	DI				Port mode
Port3 mode	DI				Port mode
Port4 mode	DI				Port mode
Port5 mode	DI				Port mode
Port6 mode	DI				Port mode
Port7 mode	DI				Port mode
Port8 mode	DI				Port mode

Parámetros del equipo



IO-Link communication from Field to Cloud

IO-Link portfolio

Thank you