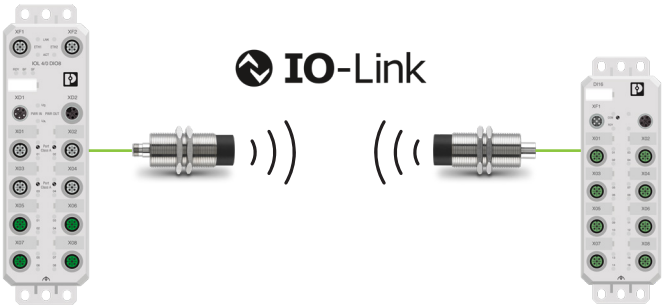
Contactless power and data transmission

IO-Link couplers

1 Introduction

With the IO-Link couplers, power (18 W) and IO-Link data can be transmitted via an air gap of up 7 mm. Two devices are always required for transmission: a base coupler and a remote coupler. The couplers do not need any configuration and are as easy to use as a connector.

Where conventional connection technologies reach their limits due to space and movement restrictions, vibrations, dust and dirt, rotation, and frequent contact, contactless transmission enables wear-free communication.



2 Your advantages

- Contactless – no wear and no maintenance
- Flexible - in addition to power, IO-Link data or two digital signals can also be transmitted
- Compact - M30 design for space-saving installation
- Compatible - can be used across manufacturers with all common IO-Link Class A devices
- Plug-and-play - base and remote couplers connect automatically in any number (1:n)

3 Main features

- IO-Link transmission: ≤230,4 kBit/s, minimum cycle time 10 ms
- Power transmission: 18 W, 24 V DC / 0,75 A
- Range up to 7 mm
- IP68 stainless steel housing with M12 connections

4 Applications and Market

Everywhere where connectors or slip rings cause problems!

Target industries

- Factory automation
- Automotive
- Robotics
- Machine building

Applications

- Robot tool change
- Transport systems
- Load and workpiece carriers
- Rotary (indexing) tables
- Presses

5 Mounting

In contrast to conventional connector solutions, IO-Link couplers can be routed to each other from any direction or even rotated. Furthermore, the couplers do not have to be exactly on top of each other, but can face each other with an offset or a tangential angle. This reduces precision requirements for the mechanical movement of two independent system parts.

The very robust housing with a continuous threaded tube made entirely of metal allows a variable mounting position within a mounting bracket. Thanks to the robust IP68 housing, you can use the IO-Link couplers in demanding environments. The cylindrical M30 design enable flexible and simple installation as well as precise installation in confined spaces.



6 Overview product family

Function	Type	Designation	Art.-No.
Base, contactless power and IO-Link coupler, 18 W, M12 connection technology, IO-Link port Class A, IP68, M30 x 1.5 design, can be combined with NF PD IOL R	Base	NF PD IOL B	1736167
Remote, contactless power and IO-Link coupler, 18 W, M12 connection technology, IO-Link port Class A, IP68, M30 x 1.5 design, can be combined with NF PD IOL B	Remote	NF PD IOL R	1736165
Mounting clamp according to DIN 3015-1, two half shells made of aluminum, M30 x 1.5, can be combined with NF PD IOL	Mounting clamp	NF MC M30 AI	1746802

7 Related products & accessories

Devices for field installation

- Power Supply – TRIO PS67
- Remote IO systems – AXL E

Accessories for tool-free field installation

- Wide range of connection technology
- Advanced Shielding Technology
- Push-Lock connection technology

More information:
www.phoenixcontact.com/io-link-couplers