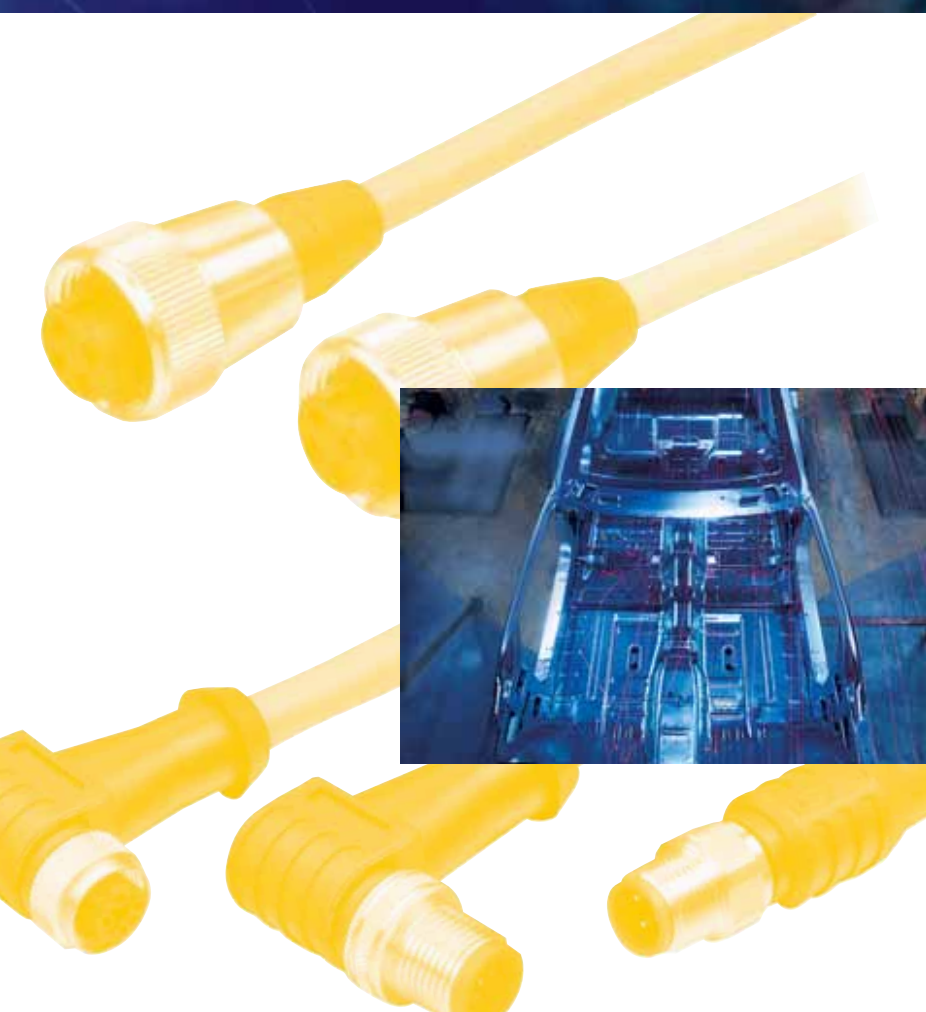


TURCK

Industrial
Automation

 **IO-Link** -
NEW COMMUNI-
CATION USING
WELL-KNOWN
METHODS



Sense it! Connect it! Bus it! Solve it!

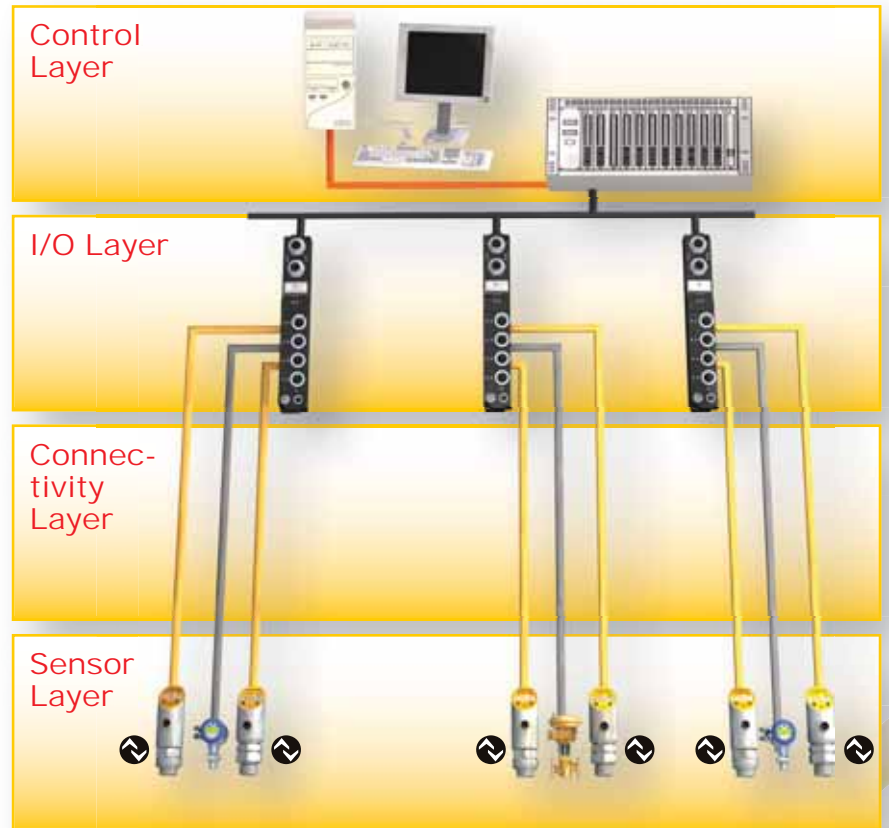
IO-Link – New communication using well-known methods

Universal communication right down to the sensor and actuator level

Many sensors and actuators today are already equipped with microprocessors which are used, for example, to control indication, for parameterization and the storage of configuration data. The obvious next step is therefore to overcome the bottleneck of the binary standard interface and make additional functions centrally accessible for the automation system.

Attempts made up to now using proprietary systems were not very successful and not accepted by the customers. For this reason some well-known manufacturers from the field of automation have come together and developed "IO-Link", a fieldbus independent communication interface for sensors and actuators. Compatibility with existing technologies was the primary objective during development in order to guarantee investment protection.

Solution with IO-Link



Simplified maintenance

Seamless Integration

Flexible production

Reduced Inventory

What does IO-Link mean?

IO-Link is based on a point-to-point connection between the sensor/actuator and an interface module. Up to now, the binary connection was only designed for transferring switching information, but IO-Link now allows 2 bytes to be transferred normally in a 2 ms cycle via a combined switching status and data channel. Other information can be exchanged in addition to the process values, such as parameters or diagnostics messages. This enables communication with sensors and actuators down to the "last meter" to be established for universal communication.

IO-Link does not require any special wiring. The sensors and actuators can continue to be connected using the proven, attractively priced and unshielded industrial cables. The operating modes available for selection are the standard switch mode and the communication mode.

IO-Link – Our solution, your benefits

Simplified maintenance

Nothing disturbs the production process more than the failure of a simple component. Not only procurement but also the setting of specific parameters can turn out to be very costly.

TURCK IO-Link solutions allow you to reduce downtimes and retrofiting times considerably. Parameter setting and diagnostics can be carried out selectively and quickly using FDT/DTM.

Your benefits with IO-Link:

- Parameters and configurations are stored in the system securely and traceably
- Parameterization errors are excluded
- Time consuming parameter setting in the field is unnecessary
- Faults on analog signal cables become a thing of the past
- User-friendly engineering and simple maintenance via FDT/DTM



FDT
Connected



Flexible production

Production processes have to be adapted increasingly faster to new requirements. This naturally places high requirements in terms of the flexibility of the instrumentation. The future belongs to devices that can be adapted by remote parameterization in the shortest possible time.

The IO-Link communication interface allows the field device parameters to be adapted simply and quickly to changing requirements. In this way, you benefit from optimum flexibility in production.

Your benefits with IO-Link:

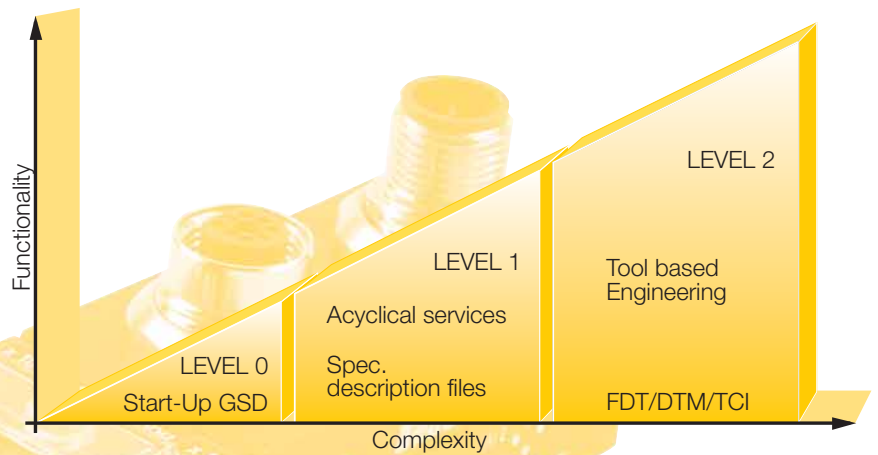
- Short retrofiting times resulting in improved productivity
- Reduced inventory costs: Components already in place can be adapted to changing production requirements
- Simple parameterization and configuration via FDT/DTM



Seamless integration

Nowadays users can select from a wide range of different fieldbus solutions. Communication to the lowest field level must allow integration in existing architectures to be as simple as possible.

Benefit from the know-how of the full-range supplier for fieldbus and sensor technology. IO-Link from TURCK ensures seamless integration of the lower field levels in your existing automation system.



Your benefits with IO-Link:

- Complete solution from a single source
- Optimum adaption to your specific requirements
- Comprehensive range of solutions

Regardless of whether process values or the entire parameterization and diagnostics have to be mapped via FDT/DTM: We have the solution for you!

mA
V
mV
Ohm
Hz



Reduced inventory

Process values are often transferred using analog signals. A wide range of different signal types are available for this that have to be mapped in the control systems and processed.

Let IO-Link reduce the number of device versions required. Regardless of whether pressure sensors, temperature sensors or ultrasonic sensors are required: TURCK provides the right sensor types with IO-Link functionality.

Your benefits with IO-Link:

- Universal IO-Link interface reduces the range of devices required for the signal types
- Simplified inventory by fewer device versions
- Simpler and more cost-efficient standard cables, no more shielded cables required for analog signals
- Secure signal transfer with error checking



IO-Link – The Full Range

Sense it!

Intelligent pressure sensors and temperature sensors – PS and TS series

The sensors of the TS and PS series combine a high level of precision and performance with simple and safe mounting. All commonly used connection versions are available for the process connection.



Ultrasonic sensors – RU series

The ultrasonic sensors in an M18 cylindrical design stand out for their large sensing ranges and short blind zones.



Connect it!

Connectors

Connectors are available in a wide range of cable qualities with M8 or M12 connections. Quick-connect technology solutions complete the selection available. In this way, even the connection technology can be adapted flexibly to your application requirements.



Bus it!

IO-Link master with SDPX-IOI4 PROFIBUS interface

The SDPX-IOI4 IO-Link master stands out for its compact design with IP67 protection. This allows the device to be mounted directly in the field without any additional protective housing necessary. This is particularly advantageous in confined spaces. The SDPX-IOI4 complies with the PROFIBUS

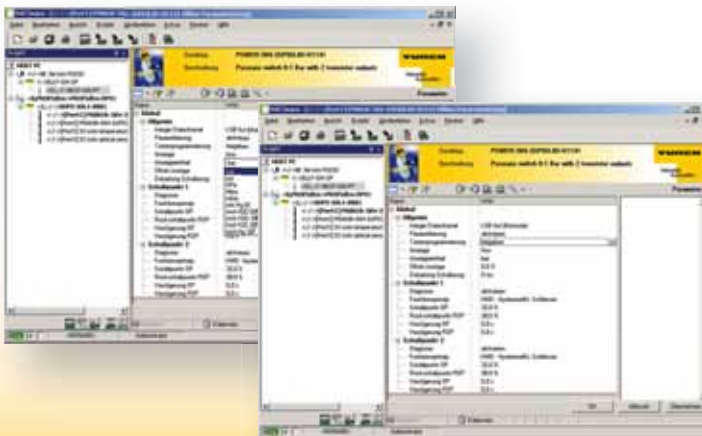


specifications for V0 and V1. The ports can also process conventional switch signals.

Solve it!

IO-Link solutions from a single source

Looking for a solution for your specific requirements?
Looking for a simple transfer of process values and a selective parameterization of sensors and actuators, or the polling of diagnostics messages?
We can develop for you solutions at all levels of integration. FDT enables a fieldbus and system independent engineering environment to be set up. Generic DTMs allow any type of sensor and actuator to be integrated easily in the system.



Information on the internet

TURCK

Industrial
Automation



IO-Link

www.turck.com/io-link



www.turck.com

More information on:
www.turck.com/io-link/

Hans Turck GmbH & Co. KG
Witzlebenstraße 7
45472 Mülheim an der Ruhr
Germany
Tel. +49 (0) 208 4952-0
Fax +49 (0) 208 4952-264
E-Mail more@turck.com
Internet www.turck.com

D101630 1108