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Press Message

IO-Link Safety: How safe connectivity scores points at field level

Ostfildern, 16.05.2024 - **Matthias Wolfer, Product Management**

(Check against delivery)

Today, when we talk about industrial communication, it should be possible to achieve safe data transfer up to the “last” sensor. This applies in particular to devices at field level. Greater availability and a more flexible automation are the objective. Since 2018, Pilz has heavily promoted the development of communication technology as part of the IO-Link Safety Consortium: under Pilz’s leadership, the technology working group has developed the specifications and carried out testing and certification. The common goal of this “new” safe connectivity is to optimise production processes.

Now the non-proprietary point-to-point communication has qualified for functional safety. With IO-Link Safety, a non-proprietary, standardised communication system for functional safety is available for the first time. With this technology, the focus is on users and their needs. The basis for the implementation is a simple integration of IO-Link Safety into plant and machinery. How can an intelligent, simple and productive implementation be achieved?

Solution for universal, safe communication

With a complete system for IO-Link Safety, Pilz has the answer. The package consists of Master, sensors, the right configuration tool, plus field devices and accessories. With us, users receive the Master as well as the sensors and field devices. Our support includes all components in the system package. This makes integration of the IO-Link Safety technology into plant and machinery simpler and smarter.

Our solution offers universal safe communication with each sensor and actuator at field level. The Pilz IO-Link Safety sensors supply important status information and offer more options for intelligent diagnostics. Devices can be identified and parameterised automatically. This makes it easier to swap components and reduces downtimes caused by repairs. Communication with IO-Link Safety is via unshielded cable and uses standard industrial connectors. That way fewer cables are needed; installation is simpler, and it’s also easier to swap devices. Smart monitoring of applications is also possible. Data from the safety light curtains is evaluated, for example. Information such as signal quality can be used for predictive maintenance.

This technology is a key for implementation of the user’s requirements. A key that fits in many ways.

Communication technology for different applications
For interlinked plants, for example: With IO-Link Safety, the Master is decentralised at field level. This reduces the cable length and already saves a considerable amount of space. Communication is point-to-point, so it is much easier to implement the wiring for the safety sensors. At the same time, users have flexibility using the Pilz IO-Link Safety Master because conventional safety sensors as well as IO-Link Safety sensors and IO-Link devices can be connected. This means there’s no need for another Master. The benefits of IO-Link Safety are also evident when transporting materials: Often, access and safety gates in such applications must be well safeguarded and machine downtimes must be minimised. When palletising goods, for example. In this situation, the communication technology guarantees simple, time-saving integration of access guarding and safeguarding of the safety gates: because the safety light curtains and the pushbutton unit can both be connected directly to the IOLS Master from Pilz.

IO-Link Safety enables a reliable, open and efficient connectivity, which has its sights firmly set on users and their needs.

Caption:

You can find texts and images for downloading at:
https://www.pilz.com/en-INT/company/press/messages/articles/241271

Pilz – The Spirit of Safety

Pilz is a global supplier of products, systems and services for automation technology. As a pioneer of safe automation, Pilz creates safety for human, machine and environment. Founded in 1948, today the family business with its head office in Ostfildern is represented worldwide with 2500 employees in 42 subsidiaries and branches. The technology leader offers complete automation solutions for Safety and Industrial Security on the machine. These include sensor, control and drive technology – as well as systems for industrial communication, diagnostics and visualisation. An international range of services with consulting, engineering and training completes the portfolio. Pilz solutions are used in many industries beyond mechanical engineering, such as intralogistics, packaging, railway technology, or the robotics sector for example.

Pilz in social networks

In our social media channels we give you background information concerning the company and the people at Pilz, and we report on current developments in Automation Technology.


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