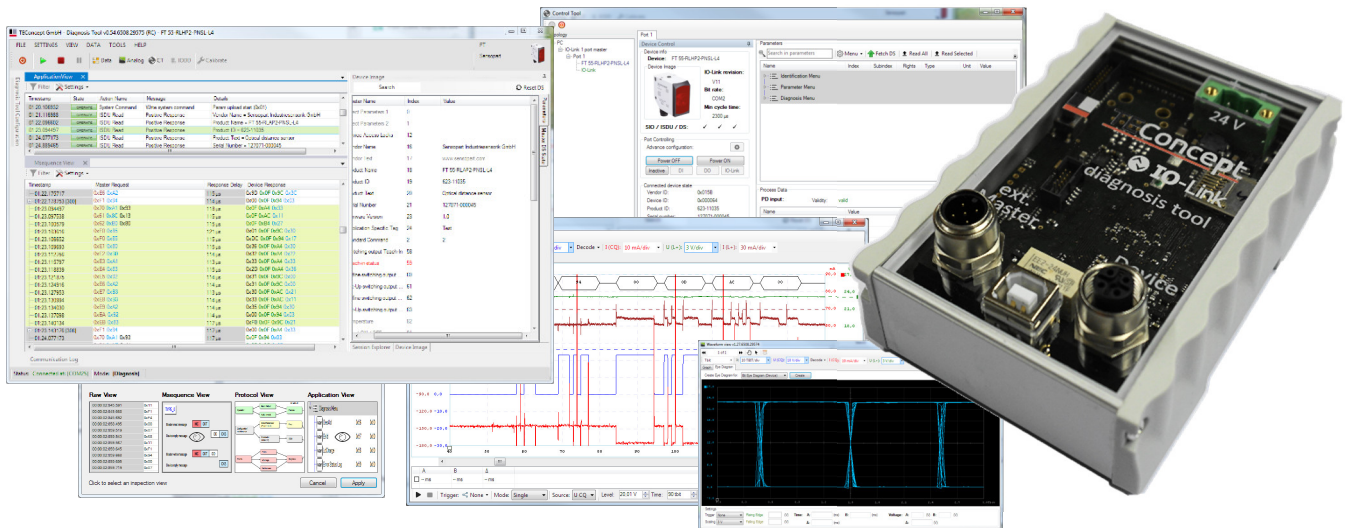# TEConcept

Use ◆ IO-Link Diagnosis Tool

Universal · Smart · Easy

Overview

The IO-Link Diagnosis Tool analyzes the IO-Link signal both electrically and logically. It is an essential tool for engineers and users of the IO-Link technology to identify any kind of issues of the IO-Link connection.

Functional Description

The Diagnosis Tool is based on a high-speed multi-channel A/D converter that measures voltages and currents on both the C/Q and the L+ line. The measured data are transferred via USB to a software running on a Windows PC.

The IO-Link communication can be analyzed on byte-level, on M-sequence level, on protocol level and even on application level. The IO-Link communication is in the latter case visible in clear text. Folding, filtering and search functions simplify issue identification.

It is also possible to visualize waveforms and even eye-diagrams for Master and Device signals can be extracted.

Typically the Diagnosis Tool is inserted between Master and Device, however, a integrated Master allows to check Devices without external Master. The tracked communication is directly shown on a PC or stored on an embedded SD-card

Diagnosis Tool Features

- Timing accurate IO-Link signal analysis
- High speed, IO-Link synchronized ADC
- Timing precise software UART decoding
- Optional hardware signal direction detection
- Byte-, frame-, protocol- or IODD-based decoding
- Sophisticated filtering and search features
- Device image collection of all data sent
- Data storage image collection
- Recording to hard disk / SD-card
- Analog time signal view for UL+, IL+, UCQ, ICQ
- Serial decoding in analogue waveform view
- Eye diagram view separated for Device/Master
- Interactive rulers for analogue measurements
- User calibration support

Advantages

- Fast and easy IO-Link issue analysis
- Logical and electrical issue detection
- Suitable for development and application

Deliverables

- **IO-Link Diagnosis Tool**
- **24V power supply, USB cable**
- **Windows-based graphical user interface**