TEConcept

Use ⚙ IO-Link
Universal · Smart · Easy

IO-Link Spy

Overview

The IO-Link Spy enables logging and analysis of IO-Link communication. To do this, the IO-Link Spy is simply clipped to the IO-Link cable. It is an essential tool for engineers and users of IO-Link technology to identify any kind of issues in the IO-Link communication without affecting the operation/communication in any way.

Functional Description

The IO-Link signal is tapped via capacitive coupling. Through amplification, filtering, and digital signal processing, the original signal is finally recovered. The measured data are transferred via USB to a software application running on a Windows PC.

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

As the IO-Link Spy is simply attached to an IO-Link cable, there is no need to interrupt an ongoing IO-Link communication. This is particularly useful for analyzing problems during operation or for errors that occur only very sporadically.

If needed, an additional ground connector can be used to improve the signal quality, though in most cases it functions perfectly well without one.

IO-Link Spy Features

- Timing accurate IO-Link signal analysis
- Timing precise UART decoding
- Byte-, frame-, protocol- or IODD-based decoding
- Sophisticated filtering and search features
- Device image collection of all data sent
- Data storage image collection

Advantages

- Logging IO-Link communication without interrupting the ongoing communication
- Fast and easy IO-Link issue analysis
- Detection of logical issues
- Suitable for development and application

Restrictions

- There must be no other (digital) signals on the line (other than IO-Link communication)
- Too much electromagnetic disturbance in the environment might cause issues in recovering the original IO-Link signal

Deliverables

- IO-Link Spy
- Ground connector cable
- USB cable
- Windows-based graphical user interface