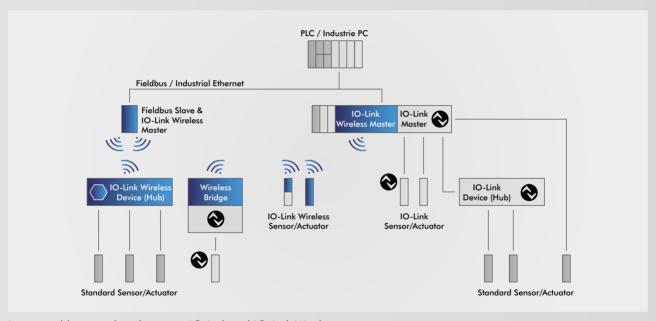


# IO-Link

Stack solutions around the new communication standard



# **Future Proof Technology**



Interoperable network architecture: IO-Link and IO-Link Wireless.

## Wired

As soon as the realization of intelligent concepts in mechanical engineering and plant manufacturing is concerned, there is no way around IO-Link today. KUNBUS – specialist and technology provider for IO-Link – offers field device manufacturers the complete IO-Link range and helps them to quickly and easily enter the world of IO-Link, IO-Link Safety and IO-Link Wireless and integrate these technologies into their system environment. Which protocol stack you ever need, you will find it here.

#### IO-Link

IO-Link is an intelligent, manufacturer-independent and universal point-to-point communication system (according to IEC 61131-9), that enables transparent cyclic and acyclic data access from the upper level communication systems or PLCs to the actuator/sensor level. It is an open, standardized and cost-effective system, that ensures greater efficiency at all levels.

In detail, such a system consists of an IO-Link Master and one or more IO-Link Devices (e.g. sensors, actuators, valves or IO modules), which are connected via classic, unshielded, three-wire cables. Thanks to IO-Link, it is possible to integrate all sensors and actuators, conventional analog and binary standard sensors as well as smart digital IO-Link sensors. The Devices are able to exchange information about themselves, their status and process data and automatically save parameter data.

Our protocol stacks are available for both Master and Device development. In order to make your approach to the IO-Link product development process as easy and effortless as possible, we provide you with so-called Development Toolkits (DTKs), which can be run directly and spontaneously with an example application. Furthermore, we offer interface solutions for the seamless integration of IO-Link Master into the higher fieldbus or industrial Ethernet level. Software Development Kits (SDKs) are also available for Texas Instruments AM24x and AM64x.

#### **IO-Link Configuration Tool**

With our high-performance and user-friendly configuration tool, included in the scope of delivery of the DTKs, you will be able to commission the IO-Link Master and Device modules quickly and easily.

#### **IO-Link Wireless**

IO-Link Wireless is an extension of IO-Link on the physical level and is interesting for all those who do not see their expectations regarding flexibility, mobility and expandability sufficiently fulfilled with the wired IO-Link version. IO-Link Wireless creates real added value compared to its wired counterpart, especially in harsh industrial environments, difficult to access or highly sensitive areas.

Up to 40 intelligent and complex actuators or sensors (so-called Devices) with a maximum latency of 5 ms can be connected to an IO-Link Wireless Master. The simultaneous operation of WLAN systems is also possible.

The backwards compatibility with factory and process automation protocols is an important key feature for us. So, users do not have to replace their existing IO-Link system when installing IO-Link Wireless, but can integrate IO-Link Wireless seamlessly into their existing, wired system.

We have chosen the CC265x microcontroller from Texas Instruments for IO-Link Wireless. Compared to other microcontrollers on the market, the CC265x offers high performance at very low power consumption. The integrated

ARM-based application core in the CC265x enables a single-chip design without separate controllers. The hardware foodprint and the costs can thus be reduced significantly

For a seamless integration of an IO-Link Wireless Master into the superordinate fieldbus or industrial Ethernet level, various interface solutions are available for all common industrial network protocols, such as PROFINET, EtherNet/IP, EtherCAT and PROFIBUS. These solutions support you in successfully connecting your devices, putting them into operation and thus exploiting their full market potential.

#### **IO-Link Wireless Configuration Tool**

As with the classic, wired IO-Link version, our integrated configuration tool ensures simple and fast commissioning of the IO-Link Wireless Masters and Devices.

# **Product Range**

KUNBUS IO-Link DTKs	Article No.
IO-Link DTK Master & Device (based on STM32)	100305
IO-Link IO-Link 8 Port HDK for AM65x IDK	100346

KUNBUS IO-Link Wireless DTKs	Article No.
IO-Link Wireless DTK – 5 Track Master (based on TI CC265x)	100288
IO-Link Wireless DTK – Device (based on TI CC265x)	100296



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