



IP 67 I/O modules: portfolio expanded with IO-Link devices

## Collecting sensor data via IO-Link with durable, machine-mountable modules

The IO-Link box module devices from Beckhoff offer protection class IP 67 and enable the local connection of sensors in the field via simple and cost-effective sensor cables. This provides straightforward data transfer via an I/O Link master to an EtherCAT communication system. Beckhoff offers a total of 28 module variants in plastic or die-cast zinc housings that cover a wide range of application requirements.

IO-Link box modules offer an extensive IP 67 product range for making cost-effective point-to-point connections directly in the field. The basis for data transmission is the IO-Link protocol, which is a communication technology for sensors and actuators that is "below the fieldbus level" and is standardized according to IEC 61131-9.

These modules supporting IO-Link communication provide benefits particularly when complex sensors must be connected. Previously, Beckhoff already made it possible to integrate up to four IO-Link devices via an IO-Link master, such as with the EP6224 EtherCAT Box (IP 67), the EL6224 EtherCAT Terminal, or the KL6224 Bus Terminal (both IP 20). If such a master is present, the new IO-Link box modules now enable simple integration of further sensor signals, locally in the field via a simple sensor cable and which are then transferred collectively to the IO-Link master.

The comprehensive IP 67 I/O portfolio from Beckhoff is thus extended for even more applications. With a total of 24 bus systems, the IP 67 I/O modules support all common communication protocols, and therefore heterogeneous applications. The best performance by far, however, can be achieved by using EtherCAT Box modules throughout, so that the full functionality of EtherCAT can be harnessed without limitation.

### Cost-effective and flexible sensor connections, even in extremely harsh environments

The IO-Link box modules enable connection of binary sensors as well as complex sensors and actuators. The connection between the modules and the respective IO-Link master is completed through an M12 connecting line (Port Class A). In the case of modules with increased power consumption, an additional voltage infeed is possible (Port Class B). Economical wiring is offered through the use of unshielded industrial cables. The modules are designed according to IO-Link specification V1.1; the range of the point-to-point connection is 20 m, according to specifications. No separate IO-Link configuration tool is required, since it is integrated directly in the TwinCAT software system. The connected IO-Link devices can be universally identified, diagnosed, and if necessary simply replaced without parameterization having to be carried out again.

Thanks to the compact form factor and different available designs, including the tried and tested plastic housing (EPI) or the extra robust die-cast zinc housing (ERI), the IO-Link box modules can be used in a wide range of application environments. Binary sensors can be connected to 8- or 16-channel modules with an M8 or M12 screw connection. The universal digital I/O modules with 8 or 16 freely usable input/output channels are highly flexible in use. The 4 channel analog input box or "combi box" with two analog inputs and two analog outputs can be used to record and transfer analog signals locally in the field.

Further information:

[www.beckhoff.com/IO-Link-Box](http://www.beckhoff.com/IO-Link-Box)