

IO-Link Wireless in assembly

TRANSMITTING SENSOR DATA WIRELESSLY TO A CONTROLLER

Assembly machines are designed as modularly as possible to achieve scaling effects. An economical example of this is, for example, the use of exchangeable rotary tables in combination with robots or cobots: This allows flexibility with small batch sizes and a large variety of parts, while keeping changeover times short and overall line effectiveness high. This modular concept of interchangeable rotary tables is made even more efficient and future-proof by the use of wireless technology. IO-Link Wireless from Balluff brings decisive advantages here compared to wired systems.

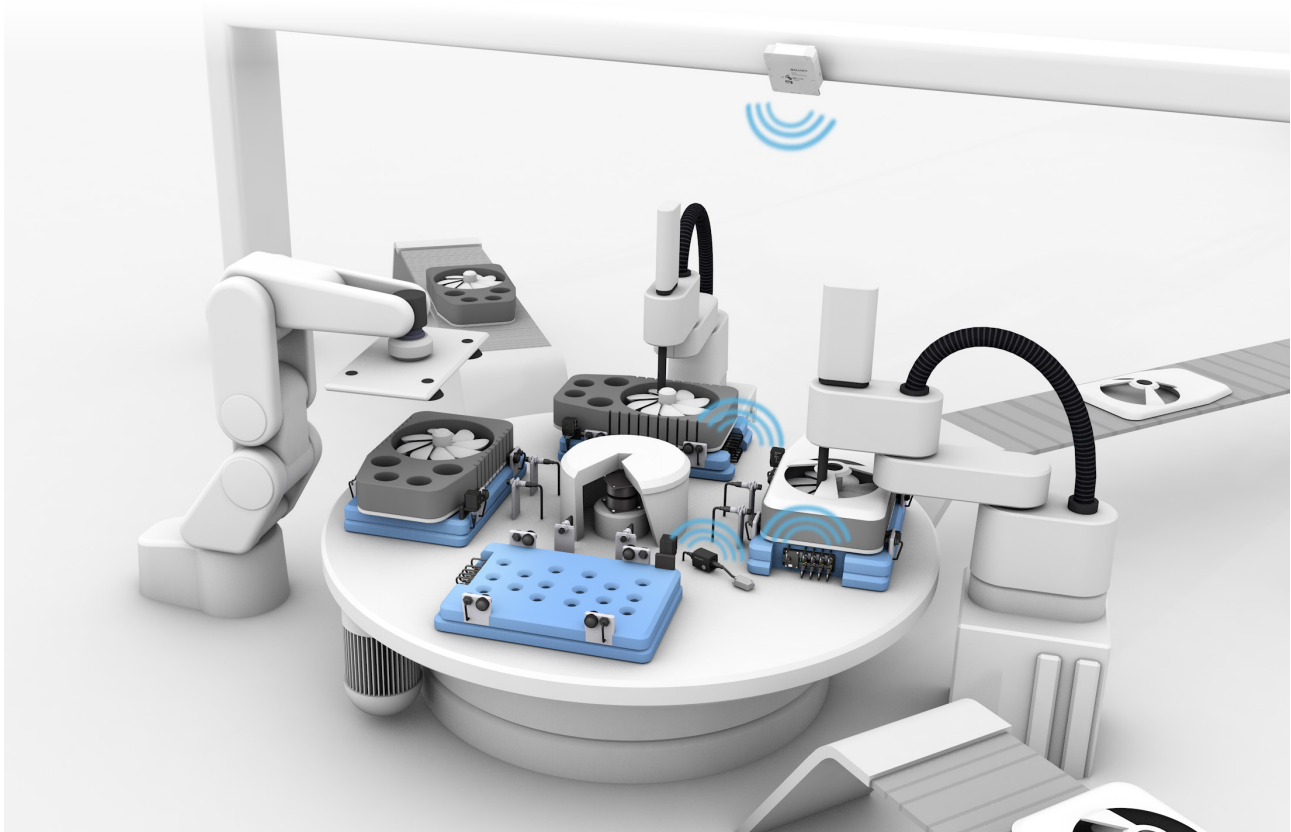
Your advantages

- Easier planning and installation
- More flexibility in design and mobility
- No wear and tear on plugs or cables
- Easily scalable and expandable
- Short conversion times, high overall plant effectiveness

The combination of industrial networks with the IO-Link communication standard is an essential building block for the factory of the future. Up until now, sensors and actuators as well as binary and analog devices have been integrated via cables. IO-Link Wireless is a promising new standard for wireless communication in process and factory automation.

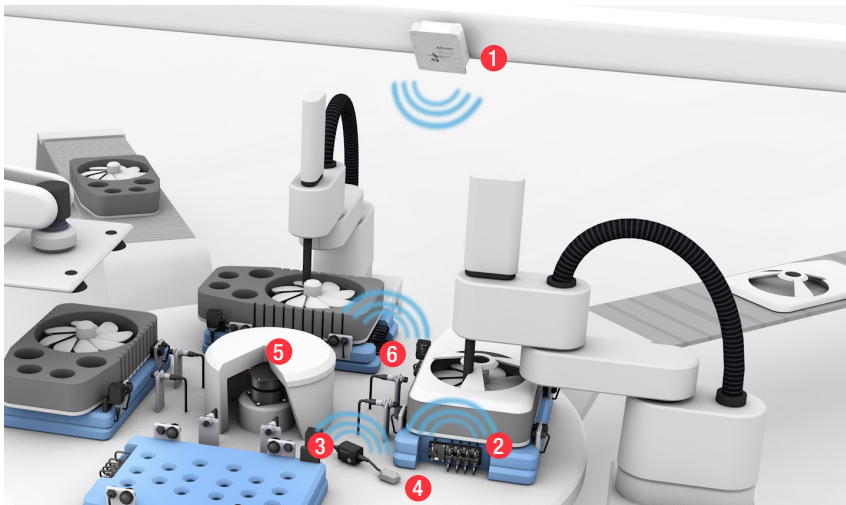
The Balluff wireless system consists of a master, hub and bridge. The data from the sensors monitoring processes on the rotary table is sent by radio to the IO-Link Wireless master via an IO-Link Wireless sensor/actuator hub or bridge. The master can receive data from up to five hubs and forwards it to the machine controller via Profinet. In addition, more complex condition monitoring sensors can communicate with the wireless master via the wireless gateway for maximum transparency and process reliability.

Using inductive couplers to supply power, the turntable can be easily exchanged without connectors. Or simply create an additional turntable with another IO-Link wireless hub on which you process a second workpiece.



Assembly machines with rotary table

COMPONENTS AT A GLANCE



- 1 IO-Link Wireless master for wireless data reception
- 2 IO-Link Wireless hub with eight digital inputs/outputs for wireless data transmission
- 3 IO-Link Wireless bridge for collecting, converting and transmitting sensor data
- 4 Condition monitoring sensor for flexible and smart condition monitoring in confined spaces
- 5 Inductive couplers enable contactless energy transmission
- 6 Standard sensors



	BNI00FE	BNI00FF	BNI00H3
IO-Link function	Master	Hub	Bridge
IO-Link version	1.1	1.1	1.1
Interface	Profinet		
Cycle time		5 ms	5 ms
Slots		8	1
Operating voltage	18...30.2 V DC	18...30.2 V DC	18...32 V DC
Connection	M12	M12	M12
Ambient temperature	-5...+50 °C	-5...+50 °C	-5...+50 °C
Protection class	IP54	IP65, when screwed in	IP67
Approval	CE, EAC, IO-Link	CE, EAC, UKCA	CE
Radio approval	Europe		

For wireless communication in process and factory automation, Balluff offers you a wide range of products:
www.balluff.com/en-de/io-link-wireless-technology