

IO-Link Wireless in metalworking

WIRELESS DATA TRANSMISSION FOR WORKPIECE HANDLING

Until now, sensors and actuators as well as binary and analog devices have been integrated into applications via cables to combine industrial networks with the IO-Link communication standard. Now, however, workpiece feeding and handling in mechanical machining are increasingly automated to maximize overall equipment effectiveness (OEE). This concept is made even more efficient, economical and future-proof by the use of wireless technology. With IO-Link Wireless, Balluff offers a reliable solution for wireless data transmission.

Your advantages

- Easier planning and installation
- Flexible integration of sensors and actuators
- Facilitated conversion of existing systems
- No cable wear: longer service life
- Optimizes overall plant effectiveness

Automated processes involving workpiece handling in metalworking can be made even more efficient and flexible by wireless data transmission using IO-Link Wireless. Since wireless technology can be used to reliably load machining centers without personnel, this solution in the field of process and factory automation is an important building block for the factory of the future.

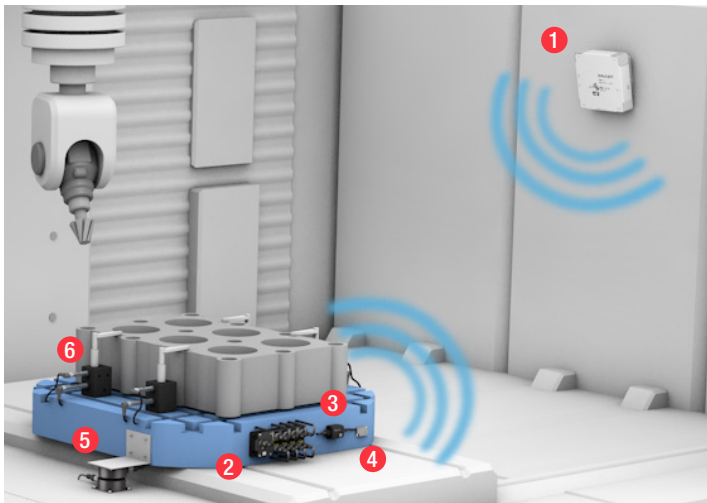
The sensor data is transmitted by radio via the IO-Link Wireless sensor/actuator hub to the IO-Link Wireless master. A master can receive data from up to five I/O hubs and then forwards it to the machine controller via Profinet. Supplying power via inductive coupler systems enables automated loading and unloading of the workpieces or pallets without the use of a connector. One workpiece/one pallet at a time is assigned to a wireless sensor/actuator hub.

You can also use condition monitoring sensors on your pallet that report anomalies or vibrations, shocks, etc. to the controller via a bridge as part of IO-Link Wireless. This increases the transparency and reliability of your metalworking processes.



Workpiece handling in metalworking

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