

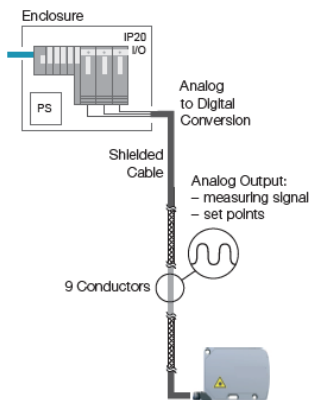
IO-Link

ANALOG VS IO-LINK FOR MEASUREMENT SIGNALS

When to use traditional analog I/O versus IO-Link analog versus an IO-Link sensor

Traditional Analog I/O

Sensor provides a 0-10V or 4-20mA signal via a shielded cable to an enclosure and terminal wiring.



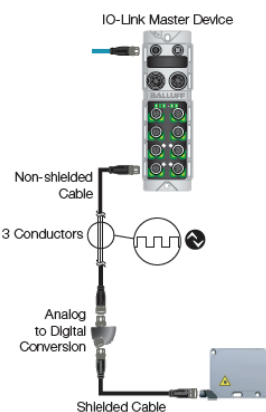
- Gives great resolution over traditional discrete sensing
- Can be connected directly to an analog card on the PLC chassis

- Requires a shielded cable to protect from electrical noise
- Must be careful with conductor routing and grounding inside and outside the control panel

VS

IO-Link Analog I/O

Sensor provides analog signal to the IO-Link analog adapter, and the digital value is sent via a standard sensor cable.



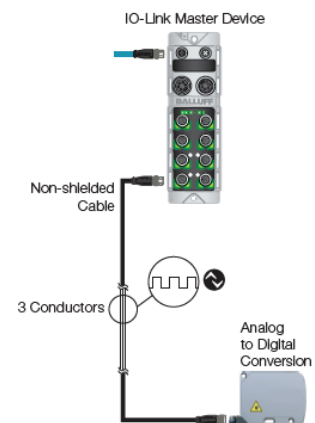
- Converts analog signal in close proximity to the sensor
- Reduces possibility for electrical noise interference

- Still requires a shielded cable to protect from electrical noise for part of the connection
- Possible industrial network need

VS

IO-Link-Sensor

Sensor digitally provides the measurement in engineering units, diagnostics and configuration via a standard cable.



- Converts measurement into engineering units inside sensor
- Uses unshielded standard sensor cable
- Receive diagnostics and configuration remotely from PLC

- Possible industrial network need
- 20 m maximum from sensor to IO-Link master