PRTXI and PRTXS Series Temperature Transmitters

ΩΞ OMEGA™

IO-Link / switch & 4-20 mA output in one sensor

Omega's new RTDs with IO-Link AND 4-20 mA outputs offer more configuration and higher temperature ranges than alternatives. Future proof your processes with a sensor that can easily switch from 4-20 mA to IO-Link, which brings a digital signal that offers superb data transfer and no external influence of the signal. With easy installation and fast lead times, you get a superior product installed in your process quickly.

Key Benefits & Features

- PT100 Class A RTD element provides an accuracy of ± 0.55 °C (± 0.99 °F) throughout the entire measuring range
- 4-pin M12 connector for quick and easy installation
- Fully welded 316L stainless steel housing with a variety of process connections and probe lengths
- IP69 rated; excellent corrosion resistence and suitable for washdown environments
- User-friendly communication via IO-Link along with 4-20 mA analog output

Available in Industrial and Sanitary options

Temperature Range: -50 to 200 °C (-58 to 392 °F)
Accuracy:
  Full Scale: ± 0.55 °C (± 0.99 °F)
  Scaled Measuring Range:
  ± [0.215 °C (0.39 °F) + 0.134 % x (Measuring Span)]
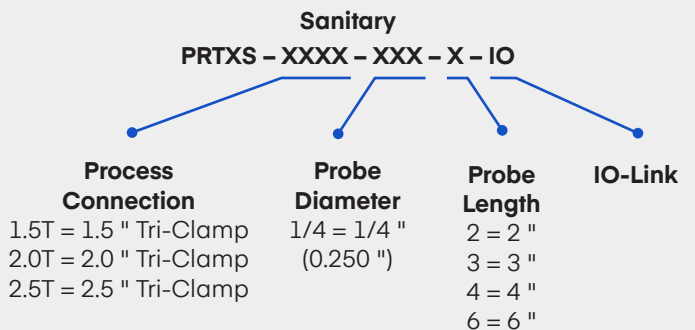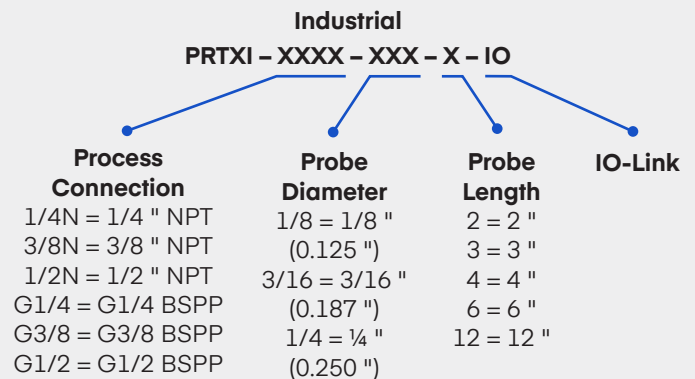**Output:** IO-Link, analog 4-20 mA*, and PNP switched (200 mA)*
Operating Voltage: 15 to 30 VDC (IO-Link/Switch); 10 to 30 VDC (Analog)
Housing Material: 316L stainless steel, IP67/IP68/IP69K
Ambient Operating Temperature Range: -40 to 85 °C (-40 to 185 °F)
Response Time (Water): T90 = 2 sec (1/8 " dia); 2 sec (3/16 " dia); 4 sec (1/4 " dia)

Part Number Breakdown

Industrial
PRTXI – XXXX – XXX – X – IO

Process Connection
1/4N = 1/4 " NPT
3/8N = 3/8 " NPT
1/2N = 1/2 " NPT
G1/4 = G1/4 BSPP
G3/8 = G3/8 BSPP
G1/2 = G1/2 BSPP

Probe Diameter
1/8 = 1/8 " (0.125 ")
3/16 = 3/16 " (0.187 ")
1/4 = ¼ " (0.250 ")

Probe Length
2 = 2 "
3 = 3 "
4 = 4 "
6 = 6 "
12 = 12 "

IO-Link

Sanitary
PRTXS – XXXX – XXX – X – IO

Process Connection
1.5T = 1.5 " Tri-Clamp
2.0T = 2.0 " Tri-Clamp
2.5T = 2.5 " Tri-Clamp

Probe Diameter
1/4 = 1/4 " (0.250 ")

Probe Length
2 = 2 "
3 = 3 "
4 = 4 "
6 = 6 "

IO-Link

Optional calibration certificates available for order.

	Industrial (PRTXI)	Sanitary (PRTXS)
Process Connections	BSPP and NPT: 1/4 ", 3/8 ", 1/2 "	1.5 ", 2.0 ", 2.5 " Tri-clamp
Certifications	CE, UKCA	CE, UKCA, 3-A, EHEDG
Standard Probe Lengths**	2, 3, 4, 6, 12 "	2, 3, 4, 6 "
Probe Diameters	1/8 ", 3/16 ", and 1/4 "	1/4 "

* Analog and switched outputs are configurable through IO-Link.   ** Lengths are configurable upon request.

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Benefits of IO-Link

Simplified Installation

M12 connection technology means junction boxes are no longer required, and cable ends don't need to be stripped/crimped/wired.

Easy Sensor Replacement

Automated parameter setting means device parameters can be stored, and automatically downloaded to new or replacement sensors.

Get More Information

Far more information can be received from the sensor, such as device identification, parameters, diagnostic data, and process data.

Reduced Cost

PLC cabinets can be smaller, there is less cabling required, and less unplanned downtime due to quicker sensor replacement.

Guaranteed Compatibility

If a sensor is IO-Link compliant it is guaranteed to work in any IO-Link system, regardless of type or manufacturer.

Common Industrial Applications

Industrial Automation
- Condition monitoring for pumps
- Heat exchangers
- Hydraulic systems
- Coolants and water-based media
- Cooling circuits

Automotive
- Oil & coolant monitoring for machine condition
- Machine tool

Common Sanitary Applications

Food & Beverage
- Clean in Place (CIP)
- Filling machines
- Vessel monitoring
- Baking/oven temperature
- Dairy processing & pasteurization

Pharmaceutical/Personal Care
- Clean in Place (CIP)
- Steam/Sterilize in Place (SIP)

INDUSTRIAL   SANITARY