

T28XX Series Temperature Sensors

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Description

T28XX Series temperature sensors measure dynamic and static temperatures under pressure. Each unit is entirely welded and utilizes stainless steel and heavy wall tubing to reduce the need for thermowells, thus minimizing costs and improving space efficiency.

T28XX Series sensors provide many features as standard and allow for a wide variety of high level outputs along with many other electrical and mechanical modifications. As with all of LORD products, "state-of-the-art" electronics are coupled with rugged and durable RTD elements.

T28XX Series sensors provide a versatile, easy to use, economical solution and compliment the "Application-Solutions" demanded by today's marketplace.

Areas of applications where we can assist include:

- Submersible Applications
- Oilfield Drilling/Production Applications
- Hazardous Areas
- OEM Customization
- Plant Automation

Standard Features

- Stainless Steel Construction
- NIST Traceable Calibration
- Wide Variety of Analog and Digital Outputs
- Hermetically Sealed
- Probe Lengths from 1" to 4"

Optional Features

- Remote Operation
- Probe Length Greater Than 4"
- Submersible Operation
- Special Ranges
- Low Current Draw Electronics
- Area Certifications for I.S. and Flameproof Environments
- Temperature Probes From -320°F to 750°F



LORD DATA SHEET

PERFORMANCE

Temperature Accuracy

± 1.2°F or 1% whichever is greater
± 0.5°F or 0.5% whichever is greater (optional)

Frequency Response

Thin wall probe: 1 sec. in liquid (63%)
Standard probe: 3 sec. in liquid (63%)

MECHANICAL CHARACTERISTICS

Working Pressure

10000 psi maximum

Operating Media

Fluids and gases compatible with stainless steel

(Inconel and other materials optional)

Pressure Fitting

1/4" NPT male (standard)
7/16"-20 per MS33656-4 male (optional)
Metric threads (optional)

Enclosure

Body and pressure cavity of stainless steel, hermetically sealed

RTD Probe

Specify probe length desired: Dimension "L"
(see drawing)

Weight

8 oz. maximum

ENVIRONMENTAL CHARACTERISTICS

Electronics Case

Analog: -65°F to +250°F
Digital: -40°F to +185°F

Temperature Probe

-65°F to +300°F (standard)

ELECTRICAL CHARACTERISTICS

ANALOG OUTPUTS

Excitation

4-20mA Current Loop: 9-36 Vdc
Isolated Voltage Output (0-5 Vdc, 0-10 Vdc):

14-32 Vdc (standard)
8-18 Vdc (No charge option)

Non-Isolated Voltage Output:

8-40 Vdc for 1-5 Vdc, 3-wire (standard)
8-40 Vdc for 1-6 Vdc, 3-wire
(No charge option)
8-40 Vdc for 0-5 Vdc, 4-wire
(No charge option)

Additional outputs and related excitations available.

DIGITAL OUTPUTS

Excitation

RS-232, RS-485: 8-30 Vdc
CANbus:

4-18 Vdc (standard)
14-32 Vdc (optional)

Programming

PC

DUAL OUTPUTS (Analog & Digital)

Excitation

3-wire Current plus Digital: 12-32 Vdc
Isolated Voltage plus Digital: 14-32 Vdc
Non-Isolated Voltage plus Digital: 8-30 Vdc

COMMON

Insulation Resistance

> 100 megohms at 50 Vdc at 70°F

Electrical Termination

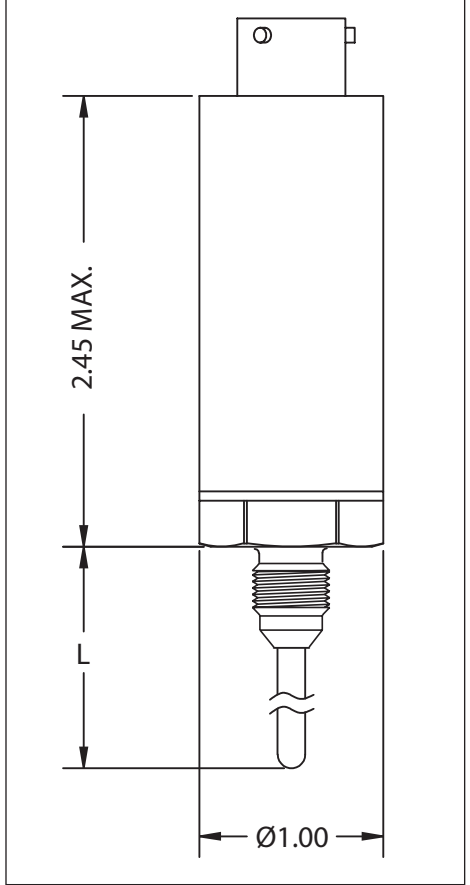
PTIH-10-6P stainless steel connector or equivalent

Optional electrical terminations available.

Electrical Protection

- EMI Protected (Optional for Isolated Voltage)
- Surge Protection to 500 Vdc (Optional for Isolated Voltage)
- Reverse Polarity Protected
- Short Circuit Protected

DIMENSIONS (inches)



MODEL IDENTIFICATION

T	2	8	X	X
	Series			
		Analog Output		Digital Output
		0 = Isolated Voltage		0 = None
		1 = None		1 = RS-485
		5 = 4-20 mA, 2-wire Loop (not available with Digital Output)		2 = RS-232
		6 = 4-20 mA, 3-wire		4 = CANbus

Values stated in this technical data sheet represent typical values as not all tests are run on each lot of material produced. For formalized product specifications for specific product end uses, contact the Customer Support Center.

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