

## T280 Series

### Industrial Temperature Transducers

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#### Description

T280 Series temperature transducers are designed to measure both dynamic and static temperatures. T280 Series transducers utilize an RTD sensing element embedded in the sensor probe. This temperature sensor is constructed of all welded stainless steel with a heavy wall tubing probe that eliminates the need for a thermal well and thus minimizes costs and improves space efficiency. These units measure temperatures in the range of -320°F to +750°F. T280 Series temperature transducers accommodate many application specific features and options including special materials, customer specified process connections, special probe lengths, and customer specified electrical connections. All units are manufactured to be shock and vibration resistant. Each T280 Series temperature transducer is shipped with an NIST traceable calibration certificate.

#### Standard Features

- No Thermal Well Required
- Compact Size
- Probe Lengths from 1" to 4"
- 10000 psi Working Pressure
- All Stainless Steel Construction
- Shock and Vibration Resistant
- Calibration Record Traceable to NIST



#### Optional Features

- Alternative Materials
- Probe Length Greater Than 4"
- Customer Specified Electrical Connections
- Customer Specified Process Connections
- Submersible Versions Available
- Temperature Probes From -320°F to 750°F

# LORD DATA SHEET

## PERFORMANCE

### Temperature Output

Class A RTD 100 ohms or 1000 ohms per DIN EN 60751 (according to IEC 751)

### Step 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

Approx. 5 oz.

## ELECTRICAL CHARACTERISTICS

### Measuring Current

100 ohms: 0.3 to 1.0mA  
1000 ohms: 0.1 to 0.3 mA  
(Self heating has been considered)

### RTD Nominal Resistance

100 ohms at 32°F

### Insulation Resistance

> 10K megohms at 50 Vdc at 70°F

### Electrical Termination

PTIH-10-6P stainless steel connector or equivalent  
*Optional electrical terminations available.*

## ENVIRONMENTAL CHARACTERISTICS

### Temperature Case

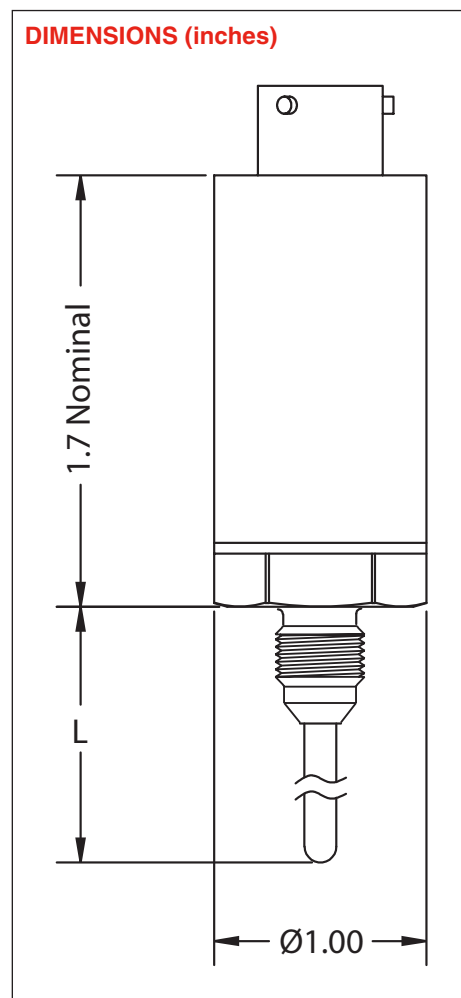
-100°F to +300°F

### Temperature Probe

-320°F to +750°F

*Note: Consult factory for ranges above 450°F.*

## DIMENSIONS (inches)



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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