



# Twin-Temp Thermometer

## Twin-Temp Transmitting Accessories and Options

Model 52

### Thermometers

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#### Application

Industrial type design for fluid medium which does not corrode 304 stainless steel. Designed for applications requiring local readability using a mechanical measuring element while affording an additional means of electronic data acquisition from the same instrument.

#### Sizes

5" (127 mm)

#### Accuracy

± 1.0% of measurement range

#### Ranges

-40 °F to 550 °F (and equivalent Celsius)

#### Over/Under Range Protection

Temporary over or under range of 50% (maximum exposure 500 °F)



### Standard Features

#### Connection

Material: 304 stainless steel  
All angle  
1/2" NPT standard

#### Stem

Material: 304 stainless steel  
Diameter: 1/4" (6.35 mm)  
Length: 2 1/2" to 48" (63.5 mm to 1,219.2 mm)

#### Measuring Element (Mechanical)

Bi-metal helix

#### Measuring Element (Electrical)

##### *Thermocouple*

Type K Grounded Junction Thermocouple standard  
(Type J, E, and T available)

##### *RTD*

Platinum 100-ohm, DIN curve (0.00385 Ohm/Ohm/°C)  
(3 wire standard configuration)

#### Case

Material: 304 stainless steel  
Hermetically sealed per ASME B40.3 standard  
External reset slotted hex head on back of case

#### Dial

White aluminum, dished, with black markings

#### Pointer

Black aluminum

#### Standard Scales

Single: Fahrenheit or Celsius  
Dual: Fahrenheit (outer) and Celsius (inner)

#### Window

Flat instrument glass

#### Order Options

##### *Weather-proof Housing and Plug*

7/8-20 UNEF threaded barrel with busing and compression nut. Provides environmental protection to thermocouple/RTD connection.

##### *Electrical Connection With Lead Wire (1/2 NPT)*

Available in thermocouple or RTD in 6" increments. Allows site installation using other enclosures or piping systems.

##### *Thermocouple Enclosure Head*

A protective enclosure threads onto the optional 1/2 NPT electrical connection. The housing protects electrical connections from the environment. Houses a 4-20 mA transmitter or terminal block. Aluminum housing is standard.

##### *Terminal Block*

Provides a connection point for the thermocouple or RTD. Mounts in thermocouple head with 2 screws.

##### *4-20 mA Transmitter*

Refer to specifications on next page

#### Additional Options

Thermowells

Acrylic, Lexan, and safety glass window

Calibration certification traceable to NIST

#### Warranty

Limited one year warranty as stated in  
Terms & Conditions of Sale

**Dimensions:**

**4-20 mA Transmitter Specifications**

**Accuracy**

± 0.1% of measurement range

**Adjustment Range**

Zero: ± 10% of range  
Span: ± 10% of range

**Thermocouple Break Protection**

Upscale (23.5 mA)

**Cold Junction Compensation Error**

Ambient -20 to 60°C: <1°C  
Ambient -40 to 85°C: <2°C

**RTD Wiring Configuration**

3 wire

**Maximum Lead Wire Resistance**

Thermocouple: 500 Ohm total  
RTD: 10 Ohm per lead

**Maximum Output Load**

RMAX: < (Vs - 12V)/0.020A  
Power Supply: 12 to 30 Vdc

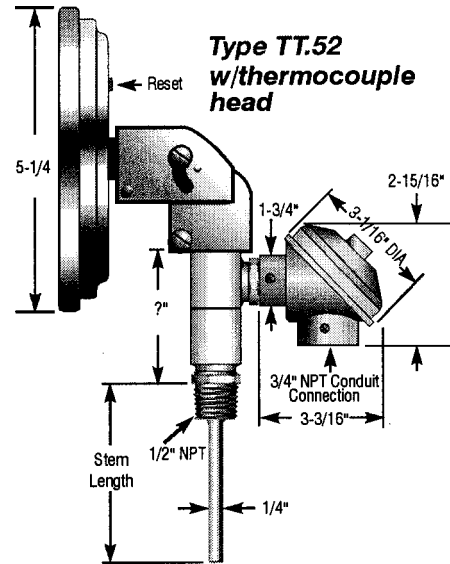
**Environmental**

Operating temperature: -40 to 185°F (-40 to 85°C)  
Humidity: 95% non-condensing  
Vibration: 10 Hz to 2 KHz, 5 g per DIN IEC 68 2-6

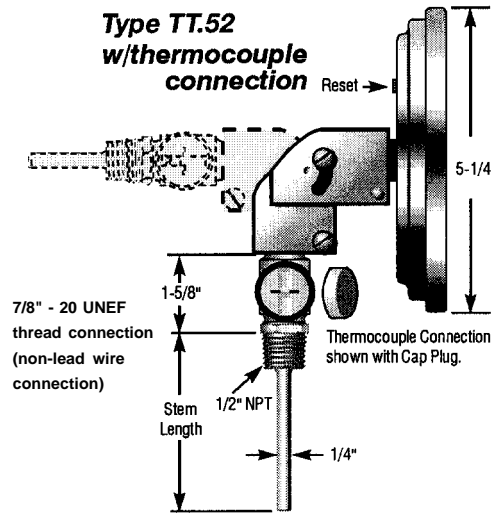
**Construction**

Case Material: Plastic, glass fiber reinforced  
Dimensions: 1.7" dia. (43 mm), 0.88" ht. (22.4 mm)

**Twin-Temp Thermometer**



Thermocouple Enclosure couple connection is 1/2" NPT. Must specify "Lead Wire" connection with thermocouple enclosure head.



(RTD connection not shown)

**THE MEASURE OF  
Total Performance™**

**Ordering Information:**

State computer part number (if available) / type number / size / range / connection size and location / options required.

Specifications given in this price list represent the state of engineering at the time of printing. Modifications may take place and the specified materials may change without prior notice

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