

# Twin-Temp Thermometer

## **Twin-Temp Transmitting Accessories and Options**

Model 52

## Thermometers

#### 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 Celcius)

#### **Over/Under Range Protection**

Temporary over or under range of 50% (maximum exposure 500  $^{\circ}$ 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 (½ 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 ½ 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

## 4-20 mA Transmitter Specifications

Accuracy

± 0.1% of measurement range

Adjustment Range Zero: <u>+</u> 10% of range Span: <u>+</u> 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-condesing 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 ½" NPT. Must specify "Lead Wire" connection with thermocouple enclosure head.



(RTD connection not shown)

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#### **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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