

# REOTEMP

INSTRUMENTS

## TEMPERATURE PRODUCTS



*Bimetal Thermometers • Thermowells • Filled System Thermometers • Sanitary products  
Digital Thermometers • Surface & Pocket Thermometers • Temperature Switches*

TI.0906

***"Service Inspired, Quality Driven"***

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Established in 1965 and located  
in San Diego, California,

REOTEMP Instrument

Corporation is recognized as a leading manufacturer  
of pressure and temperature instrumentation.

REOTEMP provides bimetal thermometers,  
pressure gauges, diaphragm seals, RTD's,  
thermocouples and related accessories to a  
variety of process markets worldwide. Recognized  
for exceptional customer service, on-time  
deliveries, high quality products, and innovative  
engineering services, REOTEMP is an ISO 9001  
certified manufacturer.



### Markets Served

|                          |                  |
|--------------------------|------------------|
| Oil, Gas & Petrochemical | Waste Water      |
| Pharmaceutical           | Compost          |
| Food & Beverage          | Military         |
| Paper & Pulp             | Dairy            |
| Mining                   | Power Generation |
| Utilities                | Refrigeration    |
| Marine                   | And More!        |

## Specifications – Bimetal Dial Thermometers

**Dial Sizes:** 1 1/8", 1 3/4", 2 3/8", 3", 4", 5"

**Stem Length:** Between 2" and 80"

**Stem Diameters:** 1/4" (standard),  
also available 5/16", 3/8".

**Heads, bezels, mounting bushing, stems:**

All Models 300 series SS

**Operating Conditions:** The temperature of the head should not be allowed to exceed 200° F (150° F if silicone filled). Stems should not be exposed to continuous temperatures exceeding 50% over-range, or 800° F.

**Hermetic seal:** All 3", 4", and 5" models (except DM4) are hermetically sealed per ASME B40.3.

**Pointed Stems:** Optional on all models. Excellent for probing asphalt, compost, soil, frozen foods or other semi-solid materials.

**Dials:** Anodized aluminum. Black marks and numbers with satin matte finish background.

**Crystals:** Optically clear strong glass.

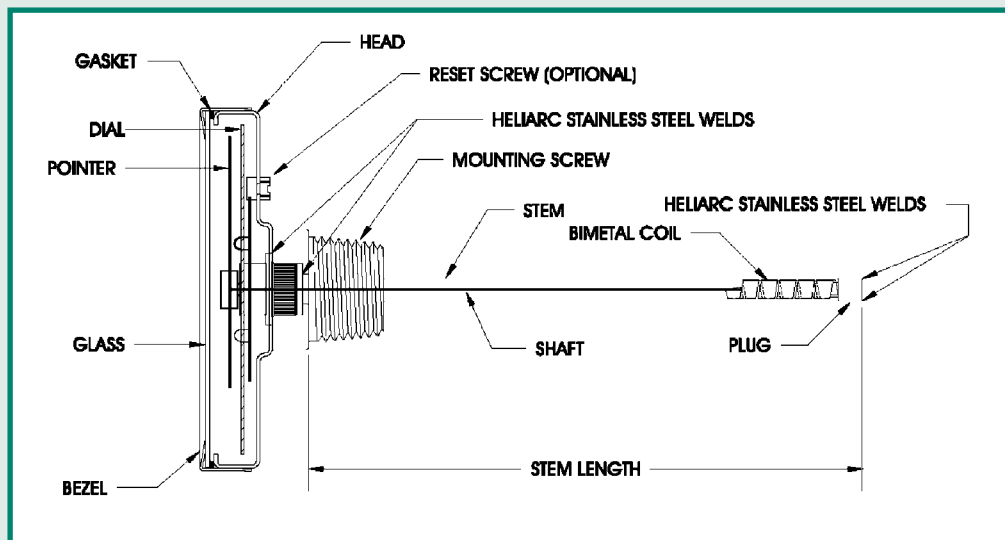
Optional: Unbreakable clear plastic: all models (Not recommended for ranges over 500° F).

Optional: "Shatterproof" tempered glass (3", 4", and 5" models).

**Accuracy:** All Models are guaranteed accurate to within plus or minus 1% of the full scale (Grade A per ASME B40.3). Temperature readings are stabilized within 40 seconds.

**Immersion:** For correct temperature measurement, the stem of all Models in all ranges must be immersed 2 inches in liquid, and 4 inches in gas except for 0 to 100° F, 25 to 125° F, and 0 to 50° C which require 3 1/2 inches in liquid and 5 inches in gas.

**Mounting Connections:** 1/2" NPT (std. on 3", 4", 5" models), 1/8" NPT, 1/4" NPT, 3/8" NPT, 3/4" NPT, 3/8"-24" NF, Plain or Reset Bushing, 1/2" NPT Union, 1/2" BSPT, BSPP Adapters.



## Thermowells

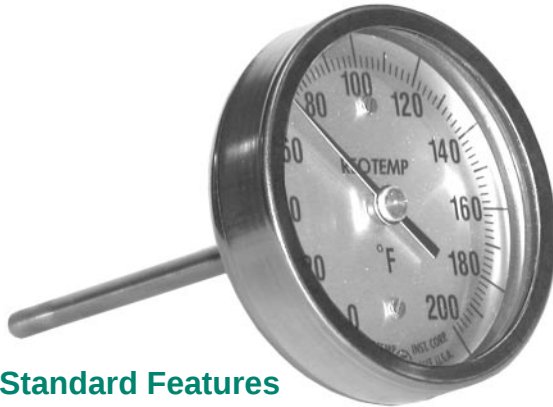
Thermowells should be used whenever the stem or bulb would be exposed to pressure, corrosion, or shear forces. Thermowells also make it possible to remove the thermometer without losing pressure or contents. (See pages 14-15 for more details)

## O.E.M. Applications

If you are an Original Equipment Manufacturer and plan to incorporate the REOTEMP Thermometer in your finished product for resale, special ranges or special dials can be made to suit your particular requirements. Such specials can bear your own company name and/or trademark on the dial. The quality, appearance, and performance of a REOTEMP Thermometer will complement and enhance your equipment.

# Bimetal Thermometers Industrial 3", 4", 5" Dial

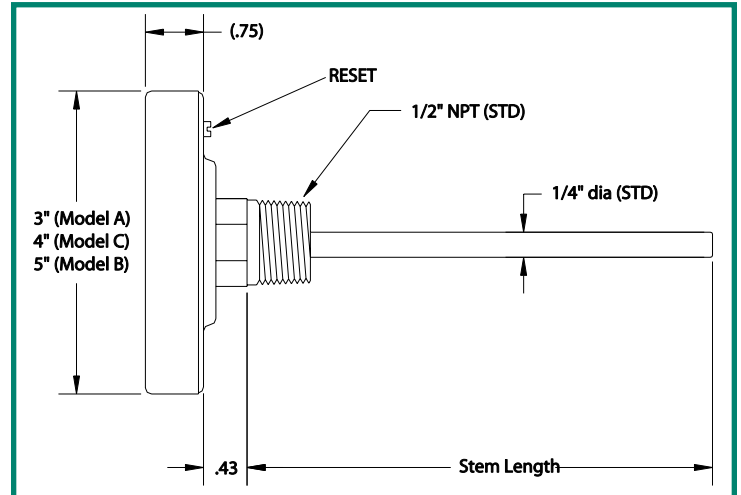
## Back Connected (Angle Form)



### Standard Features

- All Stainless Steel Construction
- Hermetically Sealed (ASME B40.3)
- Accurate to 1% of Full Scale
- Standard External Reset
- Silicone Fillable for Vibration

REOTEMP Angle Form thermometers are ideal for local, eye-level temperature readings in most process applications.



### How to Order

AA

060

1

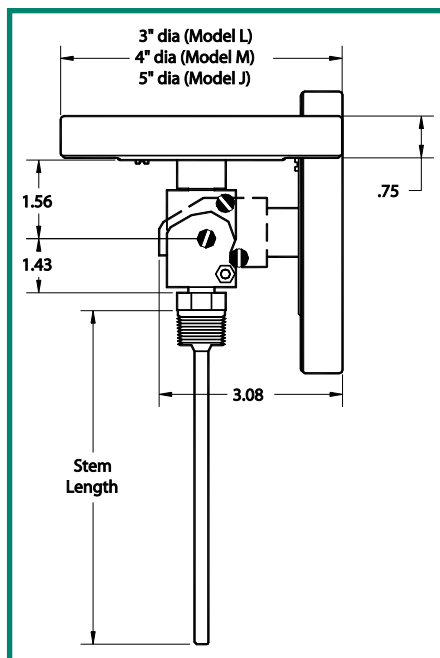
F43

SF

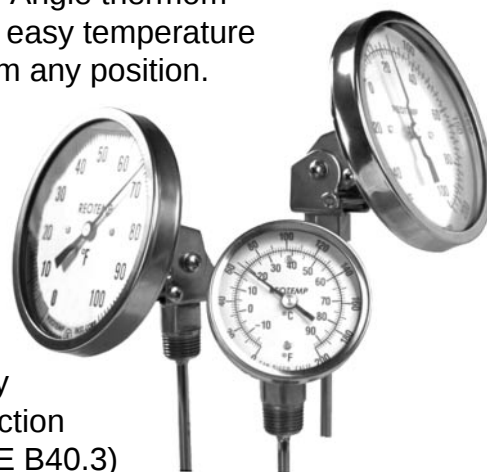
| Models                                      | Stem Length       | Connection                                   | Temperature Ranges<br>See pg.13 for full list. | Options                                       |
|---------------------------------------------|-------------------|----------------------------------------------|------------------------------------------------|-----------------------------------------------|
| <b>Standard Models</b>                      |                   | <b>Standard Threaded</b>                     | <b>Fahrenheit Ranges</b>                       | <b>PS</b> = Pointed Stem                      |
| <b>AA</b> = Model A<br>(3" dial, reset)     | <b>025</b> = 2.5" | <b>1</b> = 1/2" NPT (std.)                   | <b>F23</b> -40 TO 160°F                        | <b>SF</b> = Silicone Fill<br>(max temp 550°F) |
|                                             | <b>040</b> = 4"   | <b>4</b> = 1/4" NPT                          | <b>F55*</b> 25 TO 125°F                        | <b>SS</b> = 316 SS Stem                       |
| <b>BB</b> = Model B<br>(5" dial, reset)     | <b>060</b> = 6"   | <b>5</b> = 3/4" NPT adapter                  | <b>F43</b> 0 TO 200°F                          | <b>S3</b> = 3/8" dia. Stem                    |
|                                             | <b>090</b> = 9"   | <b>X</b> = Plain Hex Bushing<br>(no threads) | <b>F47</b> 0 TO 250°F                          | <b>PC</b> = Acrylic Window                    |
| <b>CC</b> = Model C<br>(4" dial, reset)     | <b>120</b> = 12"  | <b>B</b> = 1/2" BSPT                         | <b>F63</b> 50 TO 300°F                         | <b>PY</b> = Polycarbonate<br>Window           |
| <b>Non-Reset Models</b>                     | <b>150</b> = 15"  | <b>Sanitary</b>                              | <b>Celsius Ranges</b>                          | <b>TG</b> = Tempered Glass<br>Window          |
| <b>RR</b> = Model R<br>(3" dial, no reset)  | <b>180</b> = 18"  |                                              | <b>C23</b> -40 TO 70°C                         | <b>MM</b> = Max/Min Pointer                   |
|                                             | <b>240</b> = 24"  |                                              | <b>C55*</b> 0 TO 50°C                          | <b>CC</b> = Certificate of<br>Conformance     |
| <b>SS</b> = Model S<br>(5" dial, no reset)  | <b>300</b> = 30"  |                                              | <b>C43</b> 0 TO 100°C                          | <b>C1</b> = 1 Point Calibration<br>Cert.      |
|                                             | <b>360</b> = 36"  |                                              | <b>C47</b> -20 TO 120°C                        | <b>C3</b> = 3 Point Calibration<br>Cert.      |
| <b>CN</b> = Model CN<br>(4" dial, no reset) |                   |                                              | <b>C59</b> 0 TO 150°C                          |                                               |
|                                             |                   |                                              | <b>C67</b> 0 TO 250°C                          |                                               |
|                                             |                   |                                              | <b>C69</b> 0 TO 300°C                          |                                               |
|                                             |                   |                                              | <b>C81</b> 50 TO 400°C                         |                                               |
|                                             |                   |                                              | <b>C85</b> 100 TO 500°C                        |                                               |
|                                             |                   |                                              | <b>Dual F/C Ranges</b>                         |                                               |
|                                             |                   |                                              | <b>D23</b> -40 TO 160°F & -40 TO 70°C          |                                               |
|                                             |                   |                                              | <b>D55*</b> 25 TO 125°F & -5 TO 50°C           |                                               |
|                                             |                   |                                              | <b>D43</b> 0 TO 200°F & -10 TO 90°C            |                                               |
|                                             |                   |                                              | <b>D47</b> 0 TO 250°F & -20 TO 120°C           |                                               |
|                                             |                   |                                              | <b>D63</b> 50 TO 300°F & 10 TO 150°C           |                                               |
|                                             |                   |                                              | <b>D67</b> 50 TO 500°F & 10 TO 260°C           |                                               |
|                                             |                   |                                              | <b>D69</b> 50 TO 550°F & 10 TO 290°C           |                                               |
|                                             |                   |                                              | <b>D81</b> 150 TO 750°F & 70 TO 400°C          |                                               |
|                                             |                   |                                              | <b>D85</b> 200 TO 1000°F & 100 TO 500°C        |                                               |
|                                             |                   |                                              | *- Not available in 2.5" stem.                 |                                               |

**REOTEMP INSTRUMENT CORPORATION**

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REOTEMP All-Angle thermometer allows for easy temperature monitoring from any position.



### Standard Features

- Complete 180° Adjustability
- All Stainless Steel Construction
- Hermetically Sealed (ASME B40.3)
- Accurate to 1% of Full Scale
- Standard External Reset
- Silicone Fillable for Vibration
- 360° Case Rotation

### How to Order

LL

060

1

F43

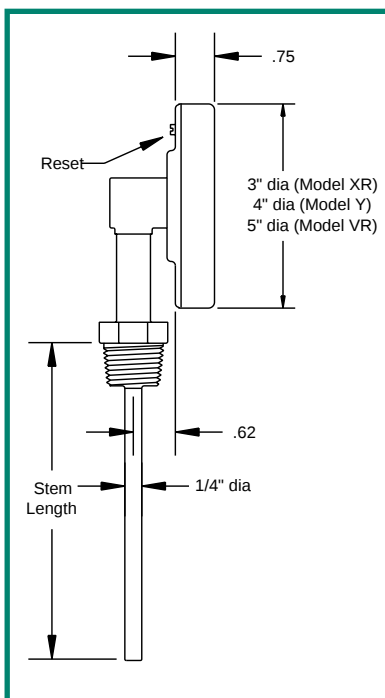
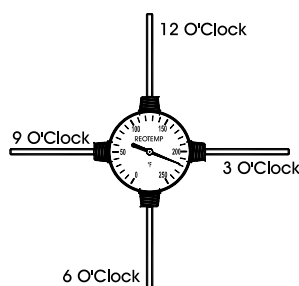
SF

| Models                                  | Stem Length                               | Connection                                                | Temperature Ranges<br>See pg.13 for full list. | Options                                       |
|-----------------------------------------|-------------------------------------------|-----------------------------------------------------------|------------------------------------------------|-----------------------------------------------|
| <b>Standard Models</b>                  |                                           | <b>Standard Threaded</b>                                  | <b>Fahrenheit Ranges</b>                       | <b>PS</b> = Pointed Stem                      |
| <b>LL</b> = Model L<br>(3" dial, reset) | <b>025</b> = 2.5"                         | <b>1</b> = 1/2" NPT (std.)                                | <b>F23</b> -40 TO 160°F                        | <b>SF</b> = Silicone Fill<br>(max temp 550°F) |
|                                         | <b>040</b> = 4"                           | <b>5</b> = 3/4" NPT adapter                               | <b>F55*</b> 25 TO 125°F                        | <b>SS</b> = 316 SS Stem                       |
| <b>MM</b> = Model M<br>(4" dial, reset) | <b>060</b> = 6"                           | <b>U</b> = 1/2" NPT Union                                 | <b>F43</b> 0 TO 200°F                          | <b>S3</b> = 3/8" dia. Stem                    |
|                                         | <b>090</b> = 9"                           |                                                           | <b>F47</b> 0 TO 250°F                          | <b>PC</b> = Acrylic Window                    |
| <b>JJ</b> = Model J<br>(5" dial, reset) | <b>120</b> = 12"                          |                                                           | <b>F63</b> 50 TO 300°F                         | <b>PY</b> = Polycarbonate Window              |
|                                         | <b>150</b> = 15"                          |                                                           | <b>F67</b> 50 TO 500°F                         | <b>TG</b> = Tempered Glass Window             |
|                                         | <b>180</b> = 18"                          |                                                           | <b>F69</b> 50 TO 550°F                         | <b>MM</b> = Max/Min Pointer                   |
|                                         | <b>240</b> = 24"                          |                                                           | <b>F81</b> 150 TO 750°F                        | <b>CC</b> = Certificate of Conformance        |
|                                         | <b>300</b> = 30"                          |                                                           | <b>F85</b> 200 TO 1000°F                       | <b>C1</b> = 1 Point Calibration Cert.         |
|                                         | <b>360</b> = 36"                          |                                                           |                                                | <b>C3</b> = 3 Point Calibration Cert.         |
|                                         | -Intermediate lengths available up to 80" |                                                           | <b>Celsius Ranges</b>                          | For Thermowells see pg. 14                    |
|                                         | -Specify length in inches + tenths        |                                                           | <b>C23</b> -40 TO 70°C                         |                                               |
|                                         |                                           |                                                           | <b>C55*</b> 0 TO 50°C                          |                                               |
|                                         |                                           |                                                           | <b>C43</b> 0 TO 100°C                          |                                               |
|                                         |                                           |                                                           | <b>C47</b> -20 TO 120°C                        |                                               |
|                                         |                                           |                                                           | <b>C59</b> 10 TO 150°C                         |                                               |
|                                         |                                           |                                                           | <b>C67</b> 10 TO 260°C                         |                                               |
|                                         |                                           |                                                           | <b>C69</b> 10 TO 290°C                         |                                               |
|                                         |                                           |                                                           | <b>C81</b> 50 TO 400°C                         |                                               |
|                                         |                                           |                                                           | <b>C85</b> 100 TO 500°C                        |                                               |
|                                         |                                           |                                                           | <b>Dual F/C Ranges</b>                         |                                               |
|                                         |                                           |                                                           | <b>D23</b> -40 TO 160°F & -40 TO 70°C          |                                               |
|                                         |                                           |                                                           | <b>D55*</b> 25 TO 125°F & -5 TO 50°C           |                                               |
|                                         |                                           |                                                           | <b>D43</b> 0 TO 200°F & -10 TO 90°C            |                                               |
|                                         |                                           |                                                           | <b>D47</b> 0 TO 250°F & -20 TO 120°C           |                                               |
|                                         |                                           |                                                           | <b>D63</b> 50 TO 300°F & 10 TO 150°C           |                                               |
|                                         |                                           |                                                           | <b>D67</b> 50 TO 500°F & 10 TO 260°C           |                                               |
|                                         |                                           |                                                           | <b>D69</b> 50 TO 550°F & 10 TO 290°C           |                                               |
|                                         |                                           |                                                           | <b>D81</b> 150 TO 750°F & 70 TO 400°C          |                                               |
|                                         |                                           |                                                           | <b>D85</b> 200 TO 1000°F & 100 TO 500°C        |                                               |
|                                         |                                           |                                                           | *- Not available in 2.5" stem.                 |                                               |
|                                         |                                           | For more information on Sanitary Thermometers see page 12 |                                                |                                               |
|                                         |                                           | <b>Sanitary</b>                                           |                                                |                                               |

# Bimetal Thermometers

## Industrial 3", 4", 5" Dial

**Bottom Connected  
(Straight Form)**



**REOTEMP**  
Straight Form  
thermometers

are ideal for  
side and elevated installations  
on tops or sides of tanks or  
pipes.



### Standard Features

- Bottom, Top, Right or Left Side Mounting
- All Stainless Steel Construction
- Hermetically Sealed (ASME B40.3)
- Accurate to 1% of Full Scale
- Standard External Reset
- Silicone Fillable for Vibration

### How to Order

**XR**

**060**

**1**

**F43**

**SF**

| Models                                      | Stem Length                               | Connection                                                | Temperature Ranges<br>See pg.13 for full list. | Options                                       |
|---------------------------------------------|-------------------------------------------|-----------------------------------------------------------|------------------------------------------------|-----------------------------------------------|
| <b>Standard Models</b>                      |                                           | <b>Standard Threaded</b>                                  | <b>Fahrenheit Ranges</b>                       |                                               |
| <b>XR</b> = Model XR<br>(3" dial, reset)    | <b>025</b> = 2.5"                         | <b>1</b> = 1/2" NPT (std.)                                | <b>F23</b> -40 TO 160°F                        | <b>PS</b> = Pointed Stem                      |
|                                             | <b>040</b> = 4"                           | <b>4</b> = 1/4" NPT                                       | <b>F55*</b> 25 TO 125°F                        | <b>SF</b> = Silicone Fill<br>(max temp 550°F) |
| <b>YY</b> = Model Y<br>(4" dial, reset)     | <b>060</b> = 6"                           |                                                           | <b>F43</b> 0 TO 200°F                          | <b>SS</b> = 316 SS Stem                       |
|                                             | <b>090</b> = 9"                           | <b>5</b> = 3/4" NPT adapter                               | <b>F47</b> 0 TO 250°F                          | <b>S3</b> = 3/8" dia. Stem                    |
| <b>VR</b> = Model VR<br>(5" dial, reset)    | <b>120</b> = 12"                          |                                                           | <b>F63</b> 50 TO 300°F                         | <b>PC</b> = Acrylic Window                    |
|                                             |                                           |                                                           | <b>F67</b> 50 TO 500°F                         | <b>PY</b> = Polycarbonate Window              |
|                                             |                                           |                                                           | <b>F69</b> 50 TO 550°F                         | <b>TG</b> = Tempered Glass Window             |
|                                             |                                           |                                                           | <b>F81</b> 150 TO 750°F                        | <b>MM</b> = Max/Min Pointer                   |
|                                             |                                           |                                                           | <b>F85</b> 200 TO 1000°F                       | <b>99</b> = 9 O'Clock Stem<br>(left side)     |
|                                             |                                           |                                                           | <b>Celsius Ranges</b>                          | <b>33</b> = 3 O'Clock Stem<br>(right side)    |
| <b>Non-Reset Models</b>                     | <b>150</b> = 15"                          | <b>Sanitary</b>                                           | <b>C23</b> -40 TO 70°C                         | <b>12</b> = 12 O'Clock Stem<br>(top mount)    |
| <b>XX</b> = Model X<br>(3" dial, no reset)  | <b>180</b> = 18"                          |                                                           | <b>C55*</b> 0 TO 50°C                          |                                               |
|                                             | <b>240</b> = 24"                          |                                                           | <b>C43</b> 0 TO 100°C                          |                                               |
| <b>YN</b> = Model YN<br>(4" dial, no reset) | <b>300</b> = 30"                          |                                                           | <b>C47</b> -20 TO 120°C                        |                                               |
|                                             | <b>360</b> = 36"                          |                                                           | <b>C59</b> 10 TO 150°C                         |                                               |
| <b>VV</b> = Model V<br>(5" dial, no reset)  |                                           |                                                           | <b>C67</b> 10 TO 260°C                         |                                               |
|                                             |                                           |                                                           | <b>C69</b> 10 TO 290°C                         |                                               |
|                                             |                                           |                                                           | <b>C81</b> 50 TO 400°C                         |                                               |
|                                             |                                           |                                                           | <b>C85</b> 100 TO 500°C                        |                                               |
|                                             |                                           |                                                           | <b>Dual F/C Ranges</b>                         |                                               |
|                                             |                                           |                                                           | <b>D23</b> -40 TO 160°F & -40 TO 70°C          |                                               |
|                                             |                                           |                                                           | <b>D55*</b> 25 TO 125°F & -5 TO 50°C           |                                               |
|                                             |                                           |                                                           | <b>D43</b> 0 TO 200°F & -10 TO 90°C            |                                               |
|                                             |                                           |                                                           | <b>D47</b> 0 TO 250°F & -20 TO 120°C           |                                               |
|                                             |                                           |                                                           | <b>D63</b> 50 TO 300°F & 10 TO 150°C           |                                               |
|                                             |                                           |                                                           | <b>D67</b> 50 TO 500°F & 10 TO 260°C           |                                               |
|                                             |                                           |                                                           | <b>D69</b> 50 TO 550°F & 10 TO 290°C           |                                               |
|                                             |                                           |                                                           | <b>D81</b> 150 TO 750°F & 70 TO 400°C          |                                               |
|                                             |                                           |                                                           | <b>D85</b> 200 TO 1000°F & 100 TO 500°C        |                                               |
|                                             |                                           |                                                           | * - Not available in 2.5" stem.                |                                               |
|                                             | -Intermediate lengths available up to 80" |                                                           |                                                |                                               |
|                                             | -Specify length in inches + tenths        |                                                           |                                                |                                               |
|                                             |                                           | For more information on Sanitary Thermometers see page 12 |                                                | For Thermowells see pg. 14                    |

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## Standard Features

- 3" Dial - Bimetal Actuation
- Heavy Duty - Vibration and Shock Resistant
- Stainless Steel - Sealed Construction
- Plastic Crystal
- External Reset is Standard
- 1% Accuracy
- Fits in 5" Scale "Submarine" Thermometer Well
- 3/4" - 28 UN2A Union Connection - (to be used in thermowell)

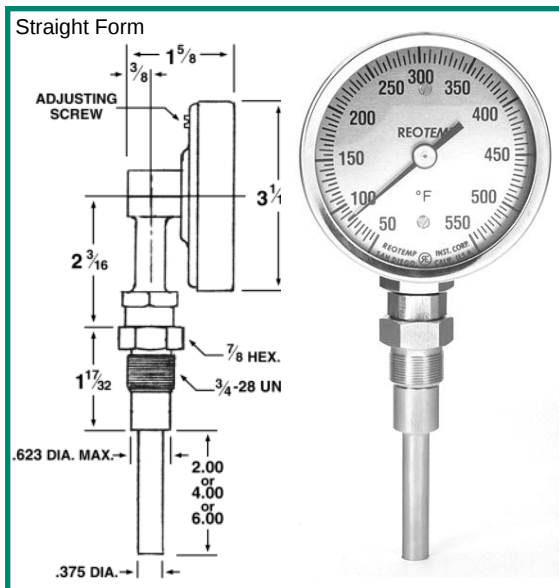
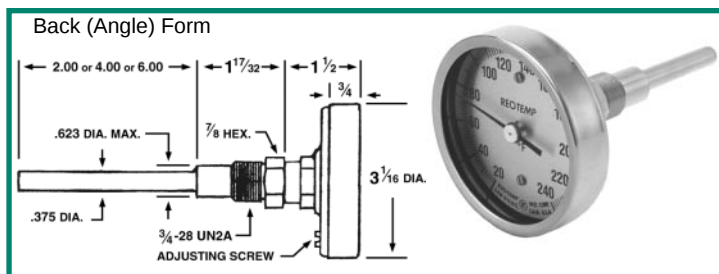
## How to Order

1. Model
2. Range

| Models                 | Ranges                        |
|------------------------|-------------------------------|
| <b>Back Angle Form</b> | <b>Fahrenheit Ranges</b>      |
| AN2= 2"                | F21 -40 TO 120°F in 2° divs.* |
| AN4= 4"                | F25 -40 TO 180°F in 2° divs.  |
| AN6= 6"                | F43 0 TO 200°F in 2° divs.    |
|                        | F53 20 TO 240°F in 2° divs.   |
| <b>Straight Form</b>   | F63 50 TO 300°F in 2° divs.   |
|                        | F65 50 TO 400°F in 5° divs.   |
|                        | F69 50 TO 550°F in 5° divs.   |
|                        | F73 50 TO 750°F in 10° divs.  |
|                        | <b>Celsius Ranges</b>         |
|                        | C07 -50 TO 50°C in 1° divs.*  |
|                        | C53 -10 TO 110°C in 1° divs.  |
|                        | C59 0 TO 150°C in 2° divs.    |
|                        | C65 0 TO 200°C in 2° divs.    |
|                        | C69 0 TO 300°C in 5° divs.    |

\*.4" Minimum stem length (on straight, left, or right side only)

Note: minimum immersion length is 2"



## Thermometer Wells

| Well Class            | Thermometer Stem Length | Well (overall) | Model No.           |
|-----------------------|-------------------------|----------------|---------------------|
|                       |                         |                | Brass 304 SS 316 SS |
| Class A (3/4" NPT)    | 2"                      | 3 1/4"         | STN2B STN2S STN2SS  |
|                       | 4"                      | 5 1/4"         | STN4B STN4S STN4SS  |
|                       | 6"                      | 7 1/4"         | STN6B STN6S STN6SS  |
| Class W (Socket Weld) | 2"                      | 3 5/16"        | SWN2SS              |
|                       | 4"                      | 5 5/16"        | SWN4SS              |
|                       | 6"                      | 7 5/16"        | SWN6SS              |

## A & W Wells



# Bimetal Thermometers Silicone-Filled Thermometers

REOTEMP Silicone-filled thermometers are offered for severe industrial applications, where vibration is a problem. Silicone dampening prolongs instrument life by preventing wear and fatigue in the instrument's internal parts. The silicone also improves readability by reducing pointer flutter, and promotes faster temperature response. Any REOTEMP 3", 4" or 5" dial bimetal thermometer (except Model DM4) can be silicone filled, in any stem length, and any temperature range up to 550°F. (Silicone filling with ranges over 550°F not recommended.) All silicone-filled thermometers come with a durable polycarbonate crystal.

## How to Order

Specify option **"SF"** at the end of any 3", 4" or 5" dial bimetal thermometer. (e.g., Model AA-040-1-F47-SF). See pg. 4-6



# Bimetal Thermometers

## Dual-Mode Thermometer

REOTEMP DUAL MODE THERMOMETER (model DMT) is a convenient, multipurpose indicator for local and remote temperature monitoring. This rugged dual-sensor system puts TWO SENSORS in ONE THERMOWELL, and allows easy tie-in to process control. Both sensors are NIST traceable, and easily calibrated. Special sensor encapsulation and optional liquid filling make the DMT the most rugged, durable instrument of its kind.



### Bimetal Thermometer

- Local easy-to-read Temperature Indication
- Self-actuating, Dampened Bimetal Helix
- Choice of three Dial Sizes, with Back, Bottom, or Adjustable Angle Connection
- Hermetically Sealed per ASME B40.3 (3/8" stem only)
- Thermometer is Easily Calibrated
- NIST Traceable Calibration

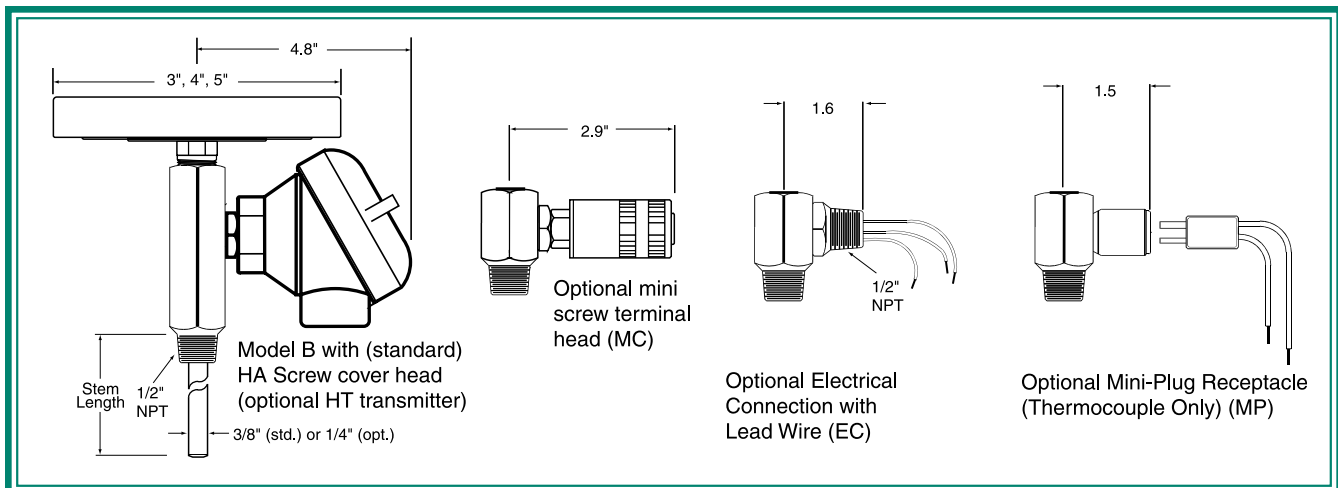
### Thermocouple or RTD

- Remote and Local Indication
- Data Acquisition for Process Control
- Choice of Connection Styles (see drawing below)
- 4-20mA Transmitter Output Available

Model DMT with  
Screw Cover Terminal  
Head, and Adjustable-  
Angle Head

### DMT Advantages:

- Allows local and remote reading (Up to 1000°F) from one thermowell.
- Bimetal dependability with RTD (or thermocouple) accuracy.
- Redundant sensors for simple, effective calibration or spot checking without removing instrument from thermowell!
- Easily installed in any standard thermowell.
- Interchangeable with existing thermometer, RTD, Thermocouple.



**REOTEMP INSTRUMENT CORPORATION**

Telephone: (800) 648-7737 FAX (858) 784-0720 • [sales@reotemp.com](mailto:sales@reotemp.com) • [www.reotemp.com](http://www.reotemp.com)

### How to Order

| Model     | Style/Stem<br>(Table 1) | Stem Length<br>(Table 2) | Temp Range<br>(Table 3) | Sensor<br>(Table 4) | Output<br>Connection<br>(Table 5) | Thermowell<br>(Table 6) |
|-----------|-------------------------|--------------------------|-------------------------|---------------------|-----------------------------------|-------------------------|
| <b>DM</b> | <b>TA</b>               | <b>04</b>                | <b>F23</b>              | <b>TK</b>           | <b>MC</b>                         | <b>046</b>              |

**Table 1 - Style & Stem Dia.**

| Code      |           | Description         |
|-----------|-----------|---------------------|
| 3/8" Stem | 1/4" Stem |                     |
| <b>TA</b> | <b>4A</b> | 3" Back Connected   |
| <b>TC</b> | <b>4C</b> | 4" Back Connected   |
| <b>TB</b> | <b>4B</b> | 5" Back Connected   |
| <b>TL</b> | <b>4L</b> | 3" Adjustable-Angle |
| <b>TM</b> | <b>4M</b> | 4" Adjustable-Angle |
| <b>TJ</b> | <b>4J</b> | 5" Adjustable-Angle |

**Table 2 - Stem Length**

| Code       | Length | Code      | Length |
|------------|--------|-----------|--------|
| <b>02*</b> | 2.5"   | <b>15</b> | 15"    |
| <b>04</b>  | 4"     | <b>18</b> | 18"    |
| <b>06</b>  | 6"     | <b>24</b> | 24"    |
| <b>09</b>  | 9"     | <b>30</b> | 30"    |
| <b>12</b>  | 12"    | <b>36</b> | 36"    |

**Table 3-Temperature Range**

\* available only with  
3/8" dia. stem.

| Code        | Degrees F     | Code        | Degrees C    | Code        | Degrees F & C               |
|-------------|---------------|-------------|--------------|-------------|-----------------------------|
| <b>F03</b>  | -100 TO 100°F | <b>C03</b>  | -70 TO 70°C  | <b>D03</b>  | -100 TO 100°F & -70 TO 40°C |
| <b>F23</b>  | -40 TO 160°F  | <b>C23</b>  | -40 TO 70°C  | <b>D23</b>  | -40 TO 160°F & -40 TO 70°C  |
| <b>F55*</b> | 25 TO 125°F   | <b>C55*</b> | 0 TO 50°C    | <b>D55*</b> | 25 TO 125°F & -5 TO 50°C    |
| <b>F43</b>  | 0 TO 200°F    | <b>C43</b>  | 0 TO 100°C   | <b>D43</b>  | 0 TO 200°F & -10 TO 90°C    |
| <b>F47</b>  | 0 TO 250°F    | <b>C47</b>  | -20 TO 120°C | <b>D47</b>  | 0 TO 250°F & -20 TO 120°C   |
| <b>F53</b>  | 20 TO 240°F   | <b>C53</b>  | -10 TO 110°C | <b>D53</b>  | 20 TO 240°F & -10 TO 115°C  |
| <b>F63</b>  | 50 TO 300°F   | <b>C59</b>  | 0 TO 150°C   | <b>D63</b>  | 50 TO 300°F & 10 TO 150°C   |
| <b>F65</b>  | 50 TO 400°F   | <b>C65</b>  | 0 TO 200°C   | <b>D65</b>  | 50 TO 400°F & 10 TO 200°C   |
| <b>F69</b>  | 50 TO 550°F   | <b>C69</b>  | 0 TO 300°C   | <b>D69</b>  | 50 TO 550°F & 10 TO 290°C   |
| <b>F79</b>  | 100 TO 800°F  | <b>C81</b>  | 50 TO 400°C  | <b>D79</b>  | 100 TO 800°F & 40 TO 400°C  |

\* min. stem 4" (3/8" dia.); 6" (1/4" dia.)

### DMT Specifications

|                     |                                                                         |
|---------------------|-------------------------------------------------------------------------|
| Case and Bezel:     | 304 SS (316 SS Available)                                               |
| Case Style:         | Back, Bottom or Adjustable Angle connection.                            |
| Dial Size:          | 3", 4" or 5"                                                            |
| Process Connection: | 1/2" NPT Standard, (1/2" NPT Union available)                           |
| External Reset:     | Slotted Hex Screw                                                       |
| Crystal:            | Glass Standard, Plastic or Tempered Glass optional                      |
| Hermetic Seal:      | Bi-Metal Thermometer per ASME B40.3 (3/8" stem only)                    |
| Stem:               | 304 SS, 0.375" O.D.<br>1/4" O.D. (DM4)<br>Lengths, 2-1/2" to 36"        |
| RTD:                | 100 Ω Platinum;<br>0.00385Ω/Ω°C, 3-wire std.                            |
| Thermocouple:       | Type K grounded junction std. (Optional: types T, E, J, or ungrounded.) |

**Table 6 - Thermowell (.385" & .260" bore)**

| Process Connection | Stem Length | "U" Dim | 3/8" Stem  |            | 1/4" Stem  |            |
|--------------------|-------------|---------|------------|------------|------------|------------|
|                    |             |         | 304 SS     | 316 SS     | 304 SS     | 316 SS     |
| 1/2" NPT           | 4"          | 2.5     | <b>071</b> | <b>171</b> | <b>011</b> | <b>111</b> |
|                    | 6"          | 4.5     | <b>072</b> | <b>172</b> | <b>012</b> | <b>112</b> |
|                    | 9"          | 7.5     | <b>073</b> | <b>173</b> | <b>013</b> | <b>113</b> |
|                    | 12"         | 10.5    | <b>074</b> | <b>174</b> | <b>014</b> | <b>114</b> |
| 3/4" NPT           | 4"          | 2.5     | <b>046</b> | <b>146</b> | <b>018</b> | <b>118</b> |
|                    | 6"          | 4.5     | <b>047</b> | <b>147</b> | <b>019</b> | <b>119</b> |
|                    | 9"          | 7.5     | <b>048</b> | <b>148</b> | <b>020</b> | <b>120</b> |
|                    | 12"         | 10.5    | <b>049</b> | <b>149</b> | <b>021</b> | <b>121</b> |
| 1" NPT             | 4"          | 2.5     | <b>053</b> | <b>153</b> | <b>025</b> | <b>125</b> |
|                    | 6"          | 4.5     | <b>054</b> | <b>154</b> | <b>026</b> | <b>126</b> |
|                    | 9"          | 7.5     | <b>055</b> | <b>155</b> | <b>027</b> | <b>127</b> |
|                    | 12"         | 10.5    | <b>056</b> | <b>156</b> | <b>028</b> | <b>128</b> |

**Table 5 - Output Connection**

| Code      | Description                                                 |
|-----------|-------------------------------------------------------------|
| <b>HA</b> | Alum. Screw-Cover head with terminal block (Std.)           |
| <b>HT</b> | Alum. Screw-Cover head with 4-20 mA transmitter             |
| <b>XT</b> | Explosion-Proof head with 4-20 mA transmitter               |
| <b>MP</b> | Mini - Plug Receptacle (Thermocouple Only)                  |
| <b>MC</b> | Mini - Connection Head, w/screw terminals & protection head |
| <b>EC</b> | 1/2" NPT Male Electrical Connection, w/Lead Wire            |

**Table 4 - Sensor**

| Code      | Description                       |
|-----------|-----------------------------------|
| <b>TK</b> | Thermocouple, Type K (grounded)   |
| <b>TJ</b> | Thermocouple, Type J (grounded)   |
| <b>TE</b> | Thermocouple, Type E (grounded)   |
| <b>TT</b> | Thermocouple, Type T (grounded)   |
| <b>UK</b> | Thermocouple, Type K (ungrounded) |
| <b>UJ</b> | Thermocouple, Type J (ungrounded) |
| <b>UE</b> | Thermocouple, Type E (ungrounded) |
| <b>UT</b> | Thermocouple, Type T (ungrounded) |
| <b>RC</b> | RTD, 100 ohm, 3-wire (max. 500°F) |

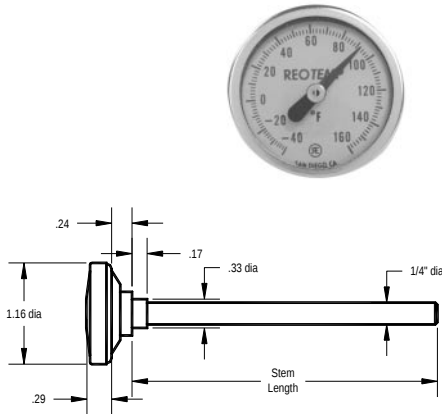
|              |                                                                                                                                    |
|--------------|------------------------------------------------------------------------------------------------------------------------------------|
| Connection:  | T/C plug, Mini connection head, or Standard screw-cover connection head are available. Special customer requirements accommodated. |
| Ranges:      | Std. REOTEMP ranges and divisions to 800°F (400°C)                                                                                 |
| Over Ranges: | 50% over range to 550°F, 1000°F max.                                                                                               |
| Accuracy:    | (+/-) 1% of full scale                                                                                                             |
| Thermowell:  | Model DMT fits any standard 0.385" bore thermowell. (See table for Std. Models).                                                   |
| Options:     | Silicone Case Fill for Vibration. (3/8" stem only)                                                                                 |
| <b>NOTE:</b> | Model DMT is intended for use ONLY in a thermowell.                                                                                |

# Bimetal Thermometers

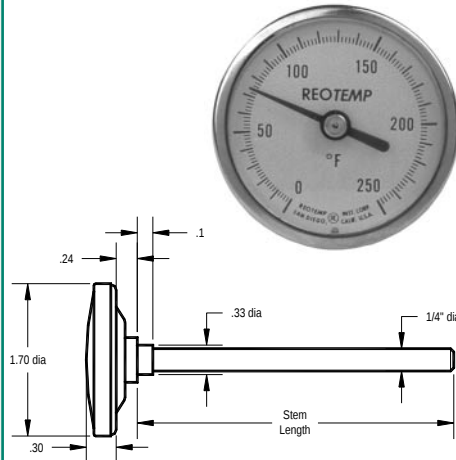
## OEM Dial Bimetal Thermometers

REOTEMP OEM Thermometers (Models **Q**, **G**, and **H**) are the perfect choice for equipment with limited space and requiring a rugged, dependable and economical temperature sensor. Available with a wide variety of mounting threads.

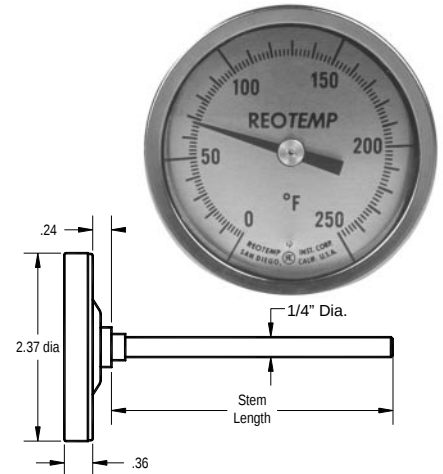
Model **Q** - 1 5/32" Dial



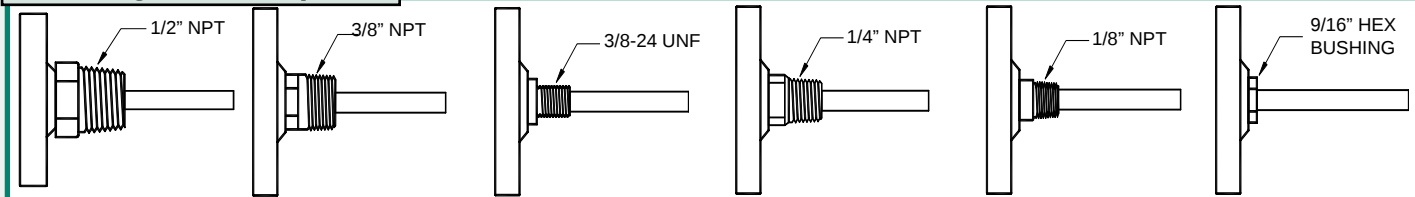
Model **G** - 1 11/16" Dial



Model **H** - 2 3/8" Dial



### Mounting Thread Options



### How to Order

| Models                                                                              | Stem Length                               | Connection                                   | Temperature Ranges                      | Options                                   |
|-------------------------------------------------------------------------------------|-------------------------------------------|----------------------------------------------|-----------------------------------------|-------------------------------------------|
| <div> <div>QQ</div> <div>025</div> <div>2</div> <div>F43</div> <div>PS</div> </div> |                                           |                                              |                                         |                                           |
| OEM Models                                                                          |                                           |                                              | Fahrenheit Ranges                       |                                           |
| <b>QQ</b> = Model Q<br>(1-1/4" dial)                                                | <b>025</b> = 2.5"                         | <b>2</b> = Plain Bushing (std.)              | <b>F23</b> -40 TO 160°F                 | <b>PS</b> = Pointed Stem                  |
|                                                                                     | <b>040</b> = 4"                           | <b>1</b> = 1/2" NPT                          | <b>F55*</b> 25 TO 125°F                 | <b>SS</b> = 316 SS Stem                   |
| <b>GG</b> = Model G<br>(1-3/4" dial)                                                | <b>060</b> = 6"                           | <b>3</b> = 3/8"-24 NF<br>(straight threaded) | <b>F43</b> 0 TO 200°F                   | <b>PC</b> = Plastic Window                |
|                                                                                     | <b>090</b> = 9"                           | <b>4</b> = 1/4" NPT                          | <b>F47</b> 0 TO 250°F                   | <b>PB</b> = Plain Bushing                 |
| <b>HH</b> = Model H<br>(2-3/8" dial)                                                | <b>120</b> = 12"                          | <b>6</b> = 1/8" NPT                          | <b>F63</b> 50 TO 300°F                  | (non-reset, for lab and test models only) |
|                                                                                     | <b>150</b> = 15"                          | <b>7</b> = 3/8" NPT                          | <b>F67</b> 50 TO 500°F                  |                                           |
| <b>Lab &amp; Test Models</b>                                                        | <b>180</b> = 18"                          | <b>8</b> = Hex Reset Bushing                 | <b>F81</b> 150 TO 750°F                 |                                           |
| <b>QP</b> = Model QP<br>(1-1/4" dial)<br>5" Stem                                    | <b>240</b> = 24"                          |                                              | <b>F85</b> 200 TO 1000°F                |                                           |
| <b>GL</b> = Model GL<br>(1-3/4" dial)<br>8" Stem                                    | <b>300</b> = 30"                          |                                              | <b>Celsius Ranges</b>                   |                                           |
| <b>HL</b> = Model HL<br>(2-3/8" dial)<br>8" Stem                                    | <b>360</b> = 36"                          |                                              | <b>C23</b> -40 TO 70°C                  |                                           |
|                                                                                     | -Intermediate lengths available up to 80" |                                              | <b>C55**</b> 0 TO 50°C                  |                                           |
|                                                                                     | -specify length in inches + tenths        |                                              | <b>C43</b> 0 TO 100°C                   |                                           |
|                                                                                     |                                           |                                              | <b>C53</b> -10 TO 100°C                 |                                           |
|                                                                                     |                                           |                                              | <b>C59</b> 0 TO 150°C                   |                                           |
|                                                                                     |                                           |                                              | <b>C65</b> 0 TO 200°C                   |                                           |
|                                                                                     |                                           |                                              | <b>C69</b> 0 TO 300°C                   |                                           |
|                                                                                     |                                           |                                              | <b>C73</b> 0 TO 400°F                   |                                           |
|                                                                                     |                                           |                                              | <b>Dual F/C Ranges</b>                  |                                           |
|                                                                                     |                                           |                                              | <b>D23**</b> -40 TO 160°F & -40 TO 70°C |                                           |
|                                                                                     |                                           |                                              | <b>D55**</b> 25 TO 125°F & 0 TO 50°C    |                                           |
|                                                                                     |                                           |                                              | <b>D43</b> 0 TO 200°F & 0 TO 100°C      |                                           |
|                                                                                     |                                           |                                              | <b>D47**</b> 0 TO 250°F & -20 TO 120°C  |                                           |
|                                                                                     |                                           |                                              | <b>D63**</b> 0 TO 300°F & 0 TO 150°C    |                                           |
|                                                                                     |                                           |                                              | <b>D67</b> 50 TO 500°F & 0 TO 250°C     |                                           |
|                                                                                     |                                           |                                              | <b>D85</b> 200 TO 1000°F & 100 TO 500°C |                                           |
|                                                                                     |                                           |                                              | *- 4" minimum stem length               |                                           |
|                                                                                     |                                           |                                              | ** - Not available in Model Q.          |                                           |

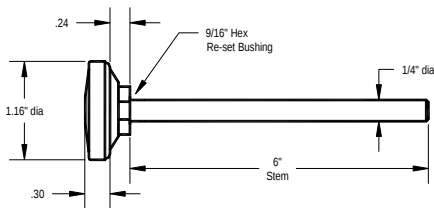
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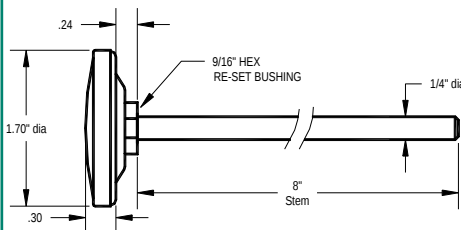
# Bimetal Thermometers Hand-held Laboratory Thermometers

REOTEMP Laboratory Thermometers (QP, GL & HL) are ideal for testing and spot checking local temperatures in a variety of critical process or lab applications. Pointed stems are available for insertion in semi-solids such as soil, meat, etc.

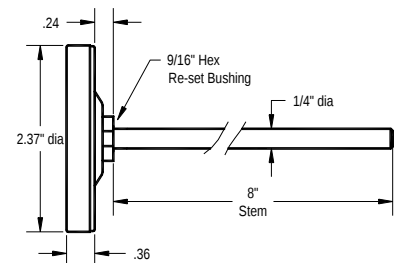
**Model QP - 1 5/32" Dial**  
(with point - Model QPP)



**Model GL - 1 11/16" Dial**  
(with point - Model GLP)



**Model HL - 2 3/8" Dial**  
(with point - Model HLP)



## How to Order

Specify Model and Range (see table, pg. 10), Example: **QP - F43**

# Bimetal Thermometers Compost Thermometers

**Used By:** Waste Treatment Plants; City, State and Federal Recycling Programs; Farms and University Compost Programs; Composting Farm and Food Wastes; Mushroom Farms.

## Heavy Duty Compost Thermometer

(A36PF)



5/16" Stem

- 36" Stem Length ( 24", 48", 60", & 72" Avail.)
- 5/16" Stem diameter
- Hermetically sealed
- Rugged all Stainless Steel Construction

## Fast Response Compost Thermometer

(A36FR)



3/8" Stem Dia.

1/4" Tip

- 36" Stem Length ( 24", 48", 60", & 72" Avail.)
- 3/8" Stem diameter x 1/4" tip
- Hermetically sealed
- Rugged all Stainless Steel Construction

## Moisture Meter

(MM36)



- 36" Stem Length ( 9", 24", 48", & 60" Avail.)
- 5/16" Stem diameter
- 0 - 10 scale
- Easy to calibrate

Also Available: Wireless Compost Monitoring System, Backyard Compost Thermometers, Thermocouple Probes, Digital Thermometers, Data Loggers, Probe Guards, and Probe Handles.

For detailed product information & pricing visit our website: [www.reotemp.com/compost](http://www.reotemp.com/compost)

# Sanitary Bimetal Thermometers

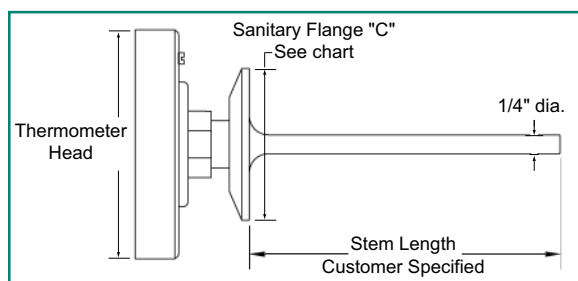
## Sani-Temp



REOTEMP SANI-TEMP Bimetal Thermometer is specially designed for direct insertion into sanitary process applications when a standard thermowell is not specified or the process environment is not exposed to pressure. The SANI-TEMP is ideal for the food, beverage and pharmaceutical industries.

| Sanitary Flange Size | "C" Dia. |
|----------------------|----------|
| 3/4"                 | .98      |
| 1"                   | 2.0      |
| 1 1/2"               | 2.0      |
| 2"                   | 2.5      |
| 2 1/2"               | 3.0      |
| 3"                   | 3.6      |

- Quick connect Tri-clamp design
- Fast installation and removal
- Hermetically sealed case
- Ideal for CIP and SIP
- Designed to meet 3A Sanitary standards
- External Reset
- Comes with 3A conformance cert.



### Specifications

|                                          |                                              |
|------------------------------------------|----------------------------------------------|
| Dial Size:                               | 3" 4" 5"                                     |
| Wetted Parts:                            | 316/316L polished stainless                  |
| Case & Ring:                             | 300 series polished st. stl.                 |
| Process Connection:                      | Tri-clamp (standard)                         |
| Wetted Finish:                           | Ra20, Ra 32 max<br>(optional: Ra 20 max)     |
| Windows: Standard:                       | Glass                                        |
| Optional:                                | Acrylic, Polycarbonate, or<br>Tempered Glass |
| Silicone Filling available for Vibration |                                              |

**AA** — **025** — **C** — **F23** — **SF**

| Bimetal Models         |    |    |    | Stem Length              | Tri-Clamp<br>(Sanitary Flange)                                                                                                | Temperature Range<br>(see full list p.13) |               | Options                                                                                                                                                                                                                                                   |
|------------------------|----|----|----|--------------------------|-------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|---------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Model Codes            |    |    |    | 025 = 2 1/2"             | C = 1" or 1 1/2"<br><br>L = 2"<br><br>A = 2 1/2"<br><br>P = 3"<br><br>M = 3/4"<br><br><br>Other Sanitary<br>Flanges available | Fahrenheit Ranges                         |               | SF = Silicone Fill<br><br>S3 = 3/8" dia. Stem<br><br>PC = Acrylic Window<br><br>PY = Polycarbonate<br>Window<br><br>TG = Tempered Glass<br>Window<br><br>MM = Max or Min<br>Pointer<br>R20 = Ra20 Max<br>Wetted Finish<br>C3 = 3 pt. Calibration<br>Cert. |
|                        |    |    |    | 040 = 4"                 |                                                                                                                               | Celsius Ranges                            |               |                                                                                                                                                                                                                                                           |
| with External Reset    |    |    |    | 060 = 6"                 |                                                                                                                               | F23 -40/160°F                             | C23 -40/70°C  |                                                                                                                                                                                                                                                           |
| Dial Size              | 3" | 4" | 5" | 090 = 9"                 |                                                                                                                               | F55 25/125°F*                             | C55 0/50°C*   |                                                                                                                                                                                                                                                           |
| Back Connect           | AA | CC | BB | 120 = 12"                |                                                                                                                               | F43 0/200°F                               | C43 0/100°C   |                                                                                                                                                                                                                                                           |
| Adjustable Angle       | LL | MM | JJ | 150 = 15"                |                                                                                                                               | F47 0/250°F                               | C47 -20/120°C |                                                                                                                                                                                                                                                           |
| Bottom Connect         | XR | YY | VR |                          |                                                                                                                               | F63 50/300°F                              | C59 0/150°C   |                                                                                                                                                                                                                                                           |
|                        |    |    |    |                          |                                                                                                                               | F67 50/500°F                              | C67 0/250°C   |                                                                                                                                                                                                                                                           |
|                        |    |    |    |                          |                                                                                                                               | F81 150/750°F                             | C81 50/400°C  |                                                                                                                                                                                                                                                           |
|                        |    |    |    |                          |                                                                                                                               | Dual F/C Ranges                           |               |                                                                                                                                                                                                                                                           |
|                        |    |    |    |                          |                                                                                                                               | D23 -40/160°F & -40/70°C                  |               |                                                                                                                                                                                                                                                           |
|                        |    |    |    |                          |                                                                                                                               | D55 25/125°F & -5/50°C*                   |               |                                                                                                                                                                                                                                                           |
|                        |    |    |    |                          |                                                                                                                               | D43 0/200°F & -10/90°C                    |               |                                                                                                                                                                                                                                                           |
|                        |    |    |    |                          |                                                                                                                               | D47 0/250°F & -20/120°C                   |               |                                                                                                                                                                                                                                                           |
|                        |    |    |    |                          |                                                                                                                               | D63 50/300°F & 10/150°C                   |               |                                                                                                                                                                                                                                                           |
|                        |    |    |    |                          |                                                                                                                               | D67 50/500°F & 10/260°C                   |               |                                                                                                                                                                                                                                                           |
|                        |    |    |    |                          | D81 150/750°F & 70/400°C                                                                                                      |                                           |               |                                                                                                                                                                                                                                                           |
|                        |    |    |    |                          | * = 4" minimum stem length                                                                                                    |                                           |               |                                                                                                                                                                                                                                                           |
| with no External Reset |    |    |    | Other Stems<br>Available |                                                                                                                               |                                           |               |                                                                                                                                                                                                                                                           |
| Dial Size              | 3" | 4" | 5" |                          |                                                                                                                               |                                           |               |                                                                                                                                                                                                                                                           |
| Back Connect           | RR | CN | SS |                          |                                                                                                                               |                                           |               |                                                                                                                                                                                                                                                           |
| Bottom Connect         | XX | YN | VV |                          |                                                                                                                               |                                           |               |                                                                                                                                                                                                                                                           |

\* = 4" minimum stem length

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## Bimetal Temperature Range Master List - (Other ranges available on application. Y = available)

| Code       | F Ranges  | Div | Q | G | H | 3,4,5 | Code       | C Ranges | Div | Q | G | H | 3,4,5 | Code       | Dual Ranges          | Q | G | H | 3,4,5 |
|------------|-----------|-----|---|---|---|-------|------------|----------|-----|---|---|---|-------|------------|----------------------|---|---|---|-------|
| <b>F03</b> | -100/100F | 2   |   | Y | Y | Y     | <b>C03</b> | -70/70C  |     |   |   |   | Y     | <b>D03</b> | -100/100F & -70/40C  |   | Y | Y | Y     |
| <b>F07</b> | -80/120F  | 2   |   |   | Y | Y     | <b>C07</b> | -50/50C  | 1   |   | Y | Y | Y     | <b>D15</b> | -50/210F & -50/100C  |   |   |   | Y     |
| <b>F11</b> | -70/150F  | 2   |   |   |   | Y     | <b>C15</b> | -50/100C | 2   |   | Y | Y | Y     | <b>D23</b> | -40/160F & -40/70C   |   | Y | Y | Y     |
| <b>F21</b> | -40/120F+ | 2   |   |   |   | Y     | <b>C23</b> | -40/70C  | 1   | Y | Y | Y | Y     |            |                      |   |   |   |       |
| <b>F23</b> | -40/160F  | 2   | Y | Y | Y | Y     |            | -50/200C | 2   |   |   |   | Y     |            |                      |   |   |   |       |
| <b>F19</b> | -50/300F  | 2   |   | Y | Y | Y     | <b>C19</b> | -40/160C | 2   |   |   |   | Y     |            |                      |   |   |   |       |
| <b>F31</b> | -20/120F+ | 2   |   | Y |   | Y     | <b>C31</b> | -20/40C* | 1   |   |   |   | Y     |            |                      |   |   |   |       |
| <b>F35</b> | 0/100F*   | 1   |   |   |   | Y     | <b>C55</b> | 0/50C*   | 1/2 | Y | Y | Y |       | <b>D55</b> | 25/125F & -5/50C     |   | Y | Y | Y     |
| <b>F55</b> | 25/125F*  | 1   | Y | Y | Y | Y     | <b>C37</b> | 0/60C*   |     |   |   |   | Y     | <b>D37</b> | 0/140F & -15/60C+    |   | Y | Y |       |
| <b>F37</b> | 0/140F+   | 2   |   |   |   | Y     | <b>C43</b> | 0/100C   | 1   | Y | Y | Y | Y     | <b>D39</b> | 0/150F & -20/70C+    |   |   |   | Y     |
| <b>F39</b> | 0/150F+   | 1   |   |   | Y | Y     |            |          |     |   |   |   |       | <b>D43</b> | 0/200F & -10/90C     | Y | Y | Y | Y     |
| <b>F43</b> | 0/200F    | 2   | Y | Y | Y | Y     | <b>C47</b> | -20/120C | 2   |   | Y | Y | Y     | <b>D47</b> | 0/250F & -20/120C    |   | Y | Y | Y     |
| <b>F45</b> | 0/220F    | 2   |   | Y | Y | Y     | <b>C53</b> | -10/110C | 1   | Y | Y | Y | Y     | <b>D53</b> | 20/240F & -10/115C   |   | Y | Y | Y     |
| <b>F47</b> | 0/250F    | 2   | Y | Y | Y | Y     | <b>C59</b> | 0/150C   | 1   | Y | Y | Y | Y     | <b>D63</b> | 50/300F & 10/150C    |   | Y | Y | Y     |
| <b>F53</b> | 20/240F   | 2   |   | Y | Y | Y     | <b>C65</b> | 0/200C   | 2   | Y | Y | Y | Y     | <b>D65</b> | 50/400F & 10/200C    |   |   |   | Y     |
| <b>F63</b> | 50/300F   | 2   | Y | Y | Y | Y     | <b>C67</b> | 0/250C   | 2   |   |   |   | Y     | <b>D67</b> | 50/500F & 10/260C    | Y | Y | Y | Y     |
| <b>F65</b> | 50/400F   | 5   |   |   |   | Y     | <b>C69</b> | 0/300C   | 2   | Y | Y | Y | Y     | <b>D69</b> | 50/550F & 10/290C    |   |   |   | Y     |
| <b>F67</b> | 50/500F   | 5   | Y | Y | Y | Y     | <b>C73</b> | 0/400C   | 5   |   | Y | Y | Y     |            |                      |   |   |   |       |
| <b>F69</b> | 50/550F   | 5   |   | Y | Y | Y     | <b>C81</b> | 50/400C  | 5   | Y | Y | Y | Y     | <b>D81</b> | 150/750F & 70/400C   |   |   |   |       |
| <b>F79</b> | 100/800F  | 10  |   | Y | Y | Y     | <b>C85</b> | 100/500C | 5   | Y | Y | Y | Y     | <b>D85</b> | 200/1000F & 100/500C | Y | Y | Y | Y     |
| <b>F81</b> | 150/750F  | 10  | Y | Y | Y | Y     |            |          |     |   |   |   |       |            |                      |   |   |   |       |
| <b>F85</b> | 200/1000F | 10  | Y | Y | Y | Y     |            |          |     |   |   |   |       |            |                      |   |   |   |       |

\* Min. 4" stem with these ranges.

+ Min. 4" stem, Bottom & Adjustable Angle models.

# Bimetal Thermometers Temperature Ranges

### Accessories

|              |                                                                                                                          |
|--------------|--------------------------------------------------------------------------------------------------------------------------|
| <b>AS-86</b> | Adapter Kit: permits installation of bimetal thermometer in existing mercury-in glass-industrial thermometer thermowell. |
| <b>HT</b>    | Heat Transfer Compound (2 oz, 1 lb containers)                                                                           |
| <b>D3</b>    | Duct Flange (1/2" NPT)                                                                                                   |
| <b>CH</b>    | T-27 spring handle                                                                                                       |
| <b>CP</b>    | Pan Clip                                                                                                                 |

### Calibration

|           |                                 |
|-----------|---------------------------------|
| <b>CC</b> | Certificate of Conformance      |
| <b>C1</b> | 1 Point Calibration Certificate |
| <b>C3</b> | 3 Point Calibration Certificate |

### Options

| Code       | Description                                      | Model      |
|------------|--------------------------------------------------|------------|
| <b>M M</b> | Minimum or Maximum resettable pointer (one hand) | 3", 5"     |
| <b>TG</b>  | Tempered Glass Lens                              | 3", 4", 5" |
| <b>PC</b>  | Plastic Lens (Acrylic)                           | All        |
| <b>PY</b>  | Polycarbonate Lens                               | 3", 4", 5" |
| <b>SF</b>  | Silicone Filled                                  | 3", 4", 5" |
| <b>SD</b>  | Silicone Filled, food grade                      | 3", 4", 5" |
| <b>GF</b>  | Glycerine Filled (200°F max.)                    | 3", 4", 5" |
| <b>PS</b>  | Pointed Stem                                     | All        |
| <b>3H</b>  | 316SS Head and Bezel                             | 3", 4", 5" |
| <b>SS</b>  | 316SS Stem                                       | All        |
| <b>F5</b>  | 5/16" diameter stem                              | 3", 4", 5" |
| <b>S3</b>  | 3/8" diameter stem                               | 3", 4", 5" |
| <b>F3</b>  | 3/8" diameter aluminum sleeve                    | 3", 4", 5" |
| <b>TF</b>  | Teflon Coating (stem only)                       | All        |
| <b>MB</b>  | External Mounting Brackets                       | G, H       |
| <b>TS</b>  | Stainless Steel Tags                             | All        |
| <b>TP</b>  | Paper Tags                                       | All        |
| <b>NL</b>  | No Logo Dial                                     | All        |
| <b>BQ</b>  | BBQ Dial                                         | 3"         |

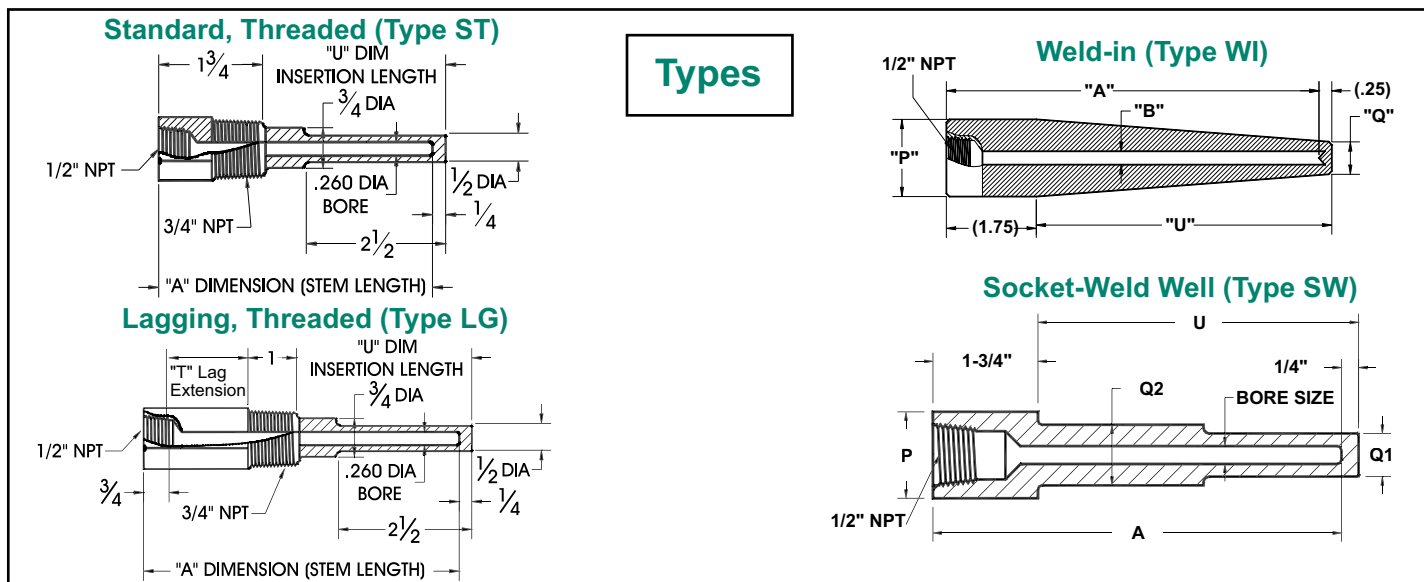
Also available on request Custom dials, special ranges, special configurations.

## Thermowells

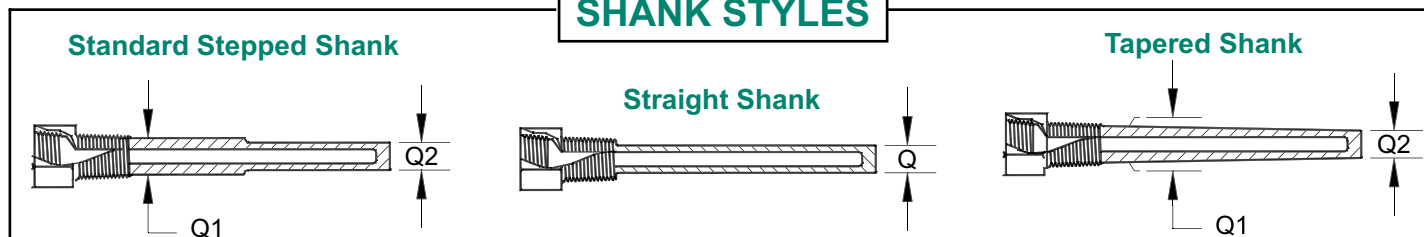
### Threaded, for Bimetal Thermometers

Thermowells make it possible to remove instrument without dropping pressure or losing contents.

Each stainless Thermowell die stamped with type of material from which it is made.



## SHANK STYLES



## How to Order



| Type                                                                                                                                                                    |               | Stem Length "A"                                                                                          |                | Material                                                                                                                                                                                                                                                                                                                                                      | External Thread                                                                                                                                                                | Shank                                                                                                               | Bore Dia. |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|----------------------------------------------------------------------------------------------------------|----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------|-----------|
| <b>ST</b> = Threaded<br><b>LG</b> = Threaded Lagging<br><b>SW</b> = Socket Weld<br><b>SWL</b> = Socket Weld w/ lag<br><b>WI</b> = Weld-in<br><b>WIL</b> = Weld-in w/lag |               | <b>2</b> = 2.5"<br><b>4</b> = 4"<br><b>6</b> = 6"<br><b>9</b> = 9"<br><b>12</b> = 12"<br><b>2.0</b> = 2" |                | <b>304</b> = 304 SS<br><b>316</b> = 316SS/316L<br><b>B</b> = Brass<br><b>C</b> = Carbon Steel (1018)<br><b>G</b> = Hast B<br><b>H</b> = Hast C<br><b>M</b> = Monel/A400<br><b>T</b> = Titanium<br><b>Y</b> = Inconel<br><b>A</b> = Alloy 105 Carb. Stl.<br><b>2</b> = Alloy 20<br><b>5</b> = F5 Alloy<br><b>P</b> = PTFE Coated 316SS<br><b>N</b> = F22 Alloy | For Threaded Wells<br><br>Blank for std. (3/4" NPT)<br><b>" "</b> = 3/4" NPT (std)<br><b>-1</b> = 1" NPT<br><b>H</b> = 1/2" NPT<br><b>4</b> = 1/4" NPT<br><b>-2</b> = 1.5" NPT | Blank for std. (stepped)<br><b>" "</b> = Stepped (std.)<br><b>T</b> = Tapered<br><b>S</b> = Straight                |           |
| <b>Standard Dimensions</b>                                                                                                                                              |               |                                                                                                          |                | For Socket Weld and Weld-in wells                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                |                                                                                                                     |           |
| Stem "A"                                                                                                                                                                | Std. "U" Dim. | Lagging "U" Dim.                                                                                         | Overall Length |                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                | Bore Diameter<br><br>Blank for std. (.260 Bore)<br><b>" "</b> = .260 (std.)<br><b>B3</b> = .385<br><b>B5</b> = .515 |           |
| 2 1/2"                                                                                                                                                                  | 1 5/8"        | ---                                                                                                      | 2 7/8"         |                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                |                                                                                                                     |           |
| 4"                                                                                                                                                                      | 2 1/2"        | ---                                                                                                      | 4 1/4"         |                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                |                                                                                                                     |           |
| 6"                                                                                                                                                                      | 4 1/2"        | 2 1/2"                                                                                                   | 6 1/4"         |                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                |                                                                                                                     |           |
| 9"                                                                                                                                                                      | 7 1/2"        | 4 1/2"                                                                                                   | 9 1/4"         |                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                |                                                                                                                     |           |
| 12"                                                                                                                                                                     | 10 1/2"       | 7 1/2"                                                                                                   | 12 1/4"        |                                                                                                                                                                                                                                                                                                                                                               | Blank for std. (3/4" pipe)<br><b>" "</b> = 3/4" pipe nominal (1.050" OD)-std<br><b>P1</b> = 1" pipe nominal (1.315" OD)                                                        |                                                                                                                     |           |

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## How To Order

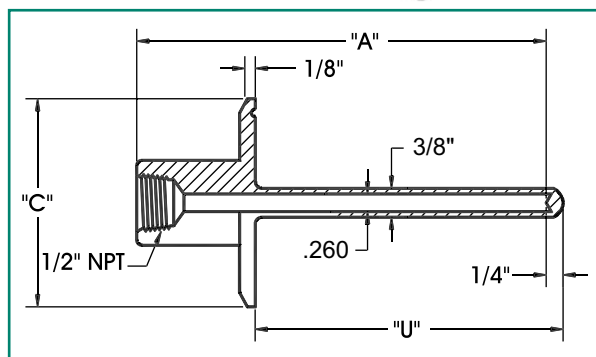
**05** — **1** — **R** — **2** — **S** — **T** — **U020** — **L042**

| Flange Size                                                                                                                        | Flange Rating                                                                                                              | Sealing Face                                                                                                     | Bore Diameter                                                                                               | Material                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Shank Style                                                                                                                  | "U" Dimensions                                                                                                                                                                                     | Overall Length                                                                                                                                                                                                           |
|------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>05</b> = 1/2"<br><b>10</b> = 1"<br><b>15</b> = 1.5"<br><b>20</b> = 2"<br><b>25</b> = 2.5"<br><b>30</b> = 3"<br><b>07</b> = 3/4" | <b>1</b> = 150#<br><b>3</b> = 300#<br><b>6</b> = 600#<br><b>9</b> = 900 - 1500#<br><b>5</b> = 2500#<br><b>V</b> = VanStone | <b>R</b> = Raised Face<br><b>F</b> = Flat Face<br><b>J</b> = RTJ (Ring type joint)<br><b>Q</b> = Other (Specify) | <b>2</b> = .260"<br>(for 1/4" stem)<br><b>3</b> = .385"<br>(for 3/8" stem)<br><b>Q</b> = Other<br>(Specify) | <b>S</b> = 316SS<br><b>F</b> = 304SS<br><b>C</b> = Carbon Stl.<br><b>D</b> = Carp. 20<br><b>G</b> = Hast B<br><b>H</b> = Hast C (276)<br><b>L</b> = F 11 Alloy<br><b>M</b> = Monel<br><b>Y</b> = Inconel (600)<br><b>U</b> = Tantalum Lined<br><b>Z</b> = Zirconium (316 flg)<br><b>V</b> = 317SS<br><b>T</b> = Titanium<br><br><b>K</b> = 316/ Stellite coating<br><b>2</b> = Alloy 20<br><b>5</b> = F5 Alloy<br><b>N</b> = F22 Alloy<br><b>P</b> = PTFE coated 316SS | <b>T</b> = Tapered<br><b>S</b> = Straight<br><b>P</b> = Stepped<br><b>R</b> = Tapered w/<br>support ring<br><b>Q</b> = Other | <b>U020</b> = 2"<br><b>U040</b> = 4"<br><b>U070</b> = 7"<br><br><b>U100</b> = 10"<br><b>U130</b> = 13"<br><b>U160</b> = 16"<br><br><b>U220</b> = 22"<br><b>U225</b> = 22.5"<br><b>M250</b> = 250mm | <b>L042</b> = 4.25"<br><b>L062</b> = 6.25"<br><b>L092</b> = 9.25"<br><br><b>L122</b> = 12.25"<br><b>L152</b> = 15.25"<br><b>L182</b> = 18.25"<br><br><b>L242</b> = 24.25"<br><b>L247</b> = 24.75"<br><b>M307</b> = 307mm |
|                                                                                                                                    |                                                                                                                            |                                                                                                                  |                                                                                                             | Note: std. overall length for a given "U" is on same line.                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                              |                                                                                                                                                                                                    |                                                                                                                                                                                                                          |

# Thermowells Sanitary Thermowells

## Features

- Provides Sanitary Protection for Temperature Probes
- All 316L Stainless Steel Construction
- Fast Installation & Removal
- Ideal for Food, Beverage, Biotech & Pharmaceutical Applications
- Finish Exceeds Ra 32 max. (finer finishes available)
- Exceeds 3A #4 Finish



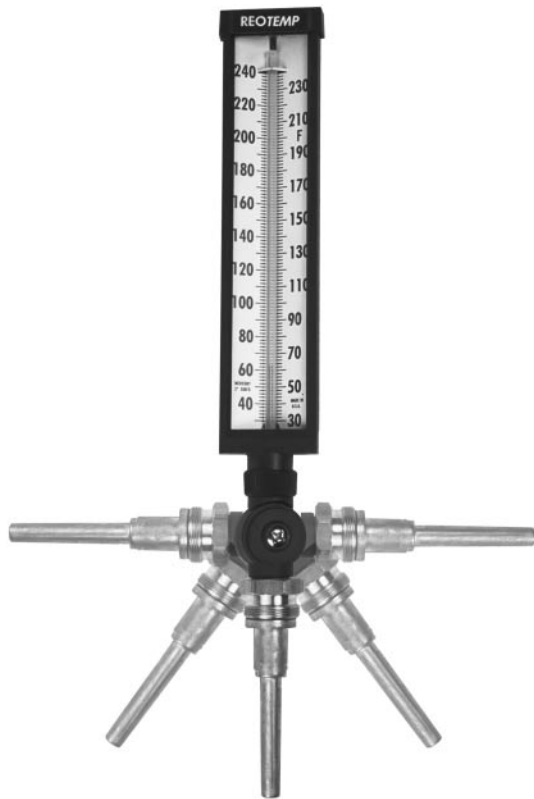
## How To Order

| Tri-Clamp Size | "A" Stem Lengths         | Part No.                                       | "U" Dim                              | "C" Dim (Flange Dia.) |
|----------------|--------------------------|------------------------------------------------|--------------------------------------|-----------------------|
| 1 1/2"         | 2 1/2"<br>4"<br>6"<br>9" | STF1.5-2.5<br>STF1.5-4<br>STF1.5-6<br>STF1.5-9 | 1 5/8"<br>2 1/2"<br>4 1/2"<br>7 1/2" | 2.0"<br>(51mm)        |
| 2"             | 2 1/2"<br>4"<br>6"<br>9" | STF2-2.5<br>STF2-4<br>STF2-6<br>STF2-9         | 1 5/8"<br>2 1/2"<br>4 1/2"<br>7 1/2" | 2.5"<br>(63mm)        |
| 2 1/2"         | 2 1/2"<br>4"<br>6"<br>9" | STF2.5-2.5<br>STF2.5-4<br>STF2.5-6<br>STF2.5-9 | 1 5/8"<br>2 1/2"<br>4 1/2"<br>7 1/2" | 3.0"<br>(76mm)        |
| 3"             | 2 1/2"<br>4"<br>6"<br>9" | STF3-2.5<br>STF3-4<br>STF3-6<br>STF3-9         | 1 5/8"<br>2 1/2"<br>4 1/2"<br>7 1/2" | 3.6"<br>(91mm)        |



# Liquid-In-Glass Thermometer

## All Angle Industrial



### Specifications:

**Case:** Modern V-shape design with parts molded of GE Valox® polyester, in black textured finish. Heavy glass protected front firmly secured by spring action.

**Stem:** Tapered bulb chambers are made of precision ground aluminum. The tapered chamber forms a metal contact with matching taper in the sockets assuring maximum speed of response to temperature changes. Graphite is used as a conducting media between bulb chamber and glass tube.

**Locking Device:** Adjustable case locknut and angle adjusting screw work independently to provide full 360° positioning of thermometer case and stem.

**Tube & Capillary:** Blue Spirit filled magnifying lens tube. Precision made to guarantee accuracy within 1% of scale range. Silicone shock mounting for lasting durability.

**Scale:** 9" scale with white coated aluminum and permanently baked bold black markings.

**Applications:** REOTEMP "All Angle" Industrial Thermometers are used in pipelines of all types, commercial building application (heating & cooling), process piping, tanks, boilers, etc.

### How to Order

**9VX35**
**016**
**SOC35B**

#### INDUSTRIAL THERMOMETERS

9" Scale, All Angle with  
1 1/4"-18" Swivel Nut

| Stem   | Part #<br>Spirit Filled |
|--------|-------------------------|
| 3 1/2" | <b>9VS35</b>            |
| 6"     | <b>9VS06</b>            |
| 9"     | <b>9VS09</b>            |

1. Part #
2. Range Code
3. Accessories

Shaded items normally in stock.

#### RETORT THERMOMETERS

For Rubber Vulcanizers, Retorts,  
Coolers, Kettles.

9" Scale Straight or Angle Form,  
3 1/2" 304 SS Stem, with 3/4" NPT 304 S.S. Hub.

| Range                 | Form     | Part #         |
|-----------------------|----------|----------------|
| 170/270°F & 0/30psi   | Angle    | <b>9RA35F</b>  |
| 170/270°F & 0/30psi   | Straight | <b>9RS35F</b>  |
| 80/130°C & 0/2 kg/cm2 | Angle    | <b>9RA35C</b>  |
| 80/130°C & 0/2 kg/cm2 | Straight | <b>9RS35C</b>  |
| 200/400°F & 0/200psi  | Angle    | <b>9RA35FV</b> |
| 200/400°F & 0/200psi  | Straight | <b>9RS35FV</b> |

#### STANDARD

| Code       | Range        | Divisions |
|------------|--------------|-----------|
| <b>411</b> | -40 TO 110°F | 2°        |
| <b>118</b> | -10 TO 180°F | 2°        |
| <b>212</b> | -20 TO 120°F | 2°        |
| <b>012</b> | 0 TO 120°F   | 1°        |
| <b>016</b> | 0 TO 160°F   | 2°        |
| <b>318</b> | 30 TO 180°F  | 2°        |
| <b>324</b> | 30 TO 240°F  | 2°        |
| <b>330</b> | 30 TO 300°F  | 2°        |

#### Separable Sockets

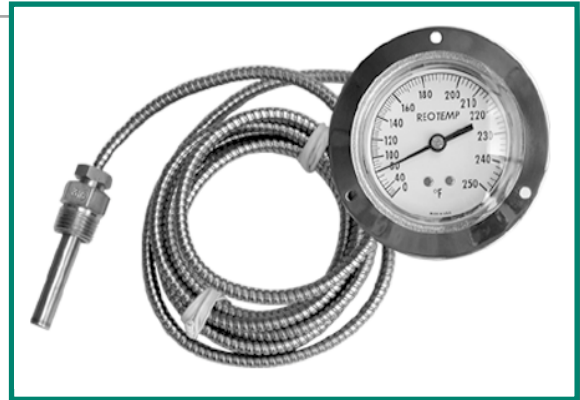
|  | "A" Stem Length         | "U" Insertion Length | "T" Extension Neck Length | Brass         | 304 SS        |
|--|-------------------------|----------------------|---------------------------|---------------|---------------|
|  | 3 1/2"                  | 2 1/2"               | -                         | <b>SOC35B</b> | <b>SOC35S</b> |
|  | 6"                      | 5"                   | -                         | <b>SOC06B</b> | <b>SOC06S</b> |
|  | 9"                      | 8"                   | -                         | <b>SOC09B</b> | <b>SOC09S</b> |
|  | 6"                      | 2 1/2"               | 2 1/2"                    | <b>SEN06B</b> | <b>SEN06S</b> |
|  | 9"                      | 5 1/2"               | 2 1/2"                    | <b>SEN09B</b> | <b>SEN09S</b> |
|  | 3/4 NPT External Thread |                      |                           | <b>UH3B</b>   | <b>UH3S</b>   |

#### Union Hubs

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REOTEMP Remote Vapor Actuated Thermometers are manufactured to the highest standards for a wide range of uses and may be fitted into almost any temperature indicating application. These instruments are ideal for remote reading, such as panel installations, with capillary lengths of 1 to 100 feet. Being vapor actuated, they are not subject to indicator error due to ambient temperature variations along the capillary tube system, and will give excellent readings provided the temperature being measured is above or below ambient temperature.



Vapor instruments have progressive graduations, and are best read in the upper 2/3 of the dial range. Many ranges are available between  $-40^{\circ}\text{F}$  and  $+450^{\circ}\text{F}$ , and care should be exercised to select a range that will locate the operating temperatures within the upper 2/3 of the dial range (see ranges on back page.)

To order vapor-configured thermometers, with gas actuation (for higher temperature:)

1. Precede vapor P/N with "G" (e.g. GV20 UR)
2. Choose gas range code from p. 23, table 4
3. Specify SS capillary and bulb (e.g. D05-L2)

### Specifications:

**Dial Sizes:** 2", 2 1/2", 3 1/2", 4 1/2"

**Dial:** Aluminum with white finish and black markings, other colors available.

**Pointer:** Standard adjustable.

**Movement:** Brass with precision gearing.

**Bourdon Tube:** Phosphor bronze.

**Accuracy:** Plus or minus one scale division. (upper 2/3 scale)

**Case:** All stainless steel, except: VA45FL (Aluminum) VA45TB (Phenolic).

**Process Connection:** Plain Bulb, 1/2" NPT Union, 1/2" NPT sliding union on 12" bendable extension, or Thermowell. NOTE: Thermowells must be used whenever the bulb would be exposed to pressure, fluid velocity, or corrosive media

**Window:** Polycarbonate, or Glass.

**Bulb:** Stainless Steel or copper. Bulb O.D. 7/16" (threaded), 3/8" (plain). Bulb lengths vary from 2 1/2" to 9 1/4" depending on capillary length.

**Capillary:** Copper, copper with bronze braid armor, stainless steel, stainless steel with stainless steel armor. Capillary lengths 1 to 100 feet (standard length 5 feet).

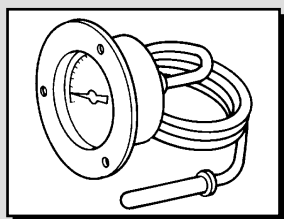
**Ranges:** Over twenty  $^{\circ}\text{F}$  and  $^{\circ}\text{F}/^{\circ}\text{C}$  ranges available, from  $-40^{\circ}$  to  $+450^{\circ}\text{F}$  (see illustration, back page).

**Applications:** Control panels, chemical processing, pipelines, food processing, OEM applications, ovens, solar heating, refrigeration, etc.

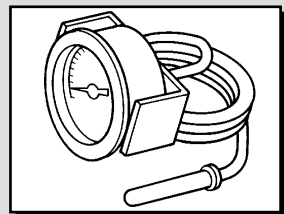
# Filled System Thermometers

## Vapor Actuated - How to Order

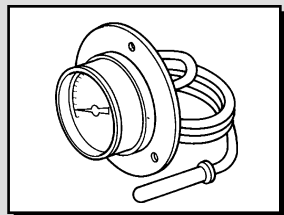
| Model V<br>Vapor<br>Actuated | Case Style<br>& Size<br>(Table 1) | Temperature<br>Range<br>(Table 2) | Capillary<br>& Bulb<br>(Table 3) | Capillary<br>Length (in Ft.)<br>(Table 4) | Process<br>Connection<br>(Table 5) |
|------------------------------|-----------------------------------|-----------------------------------|----------------------------------|-------------------------------------------|------------------------------------|
| <b>V</b>                     | <b>20FR</b>                       | <b>21</b>                         | <b>D</b>                         | <b>05</b>                                 | <b>L2</b>                          |

**Table 1 - Case Style**
**Front Flanged (Panel Mount)**


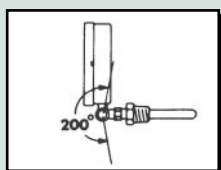
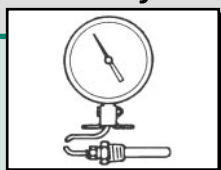
| Code        | Dial   | Case                                | Lens           | Connection Location |
|-------------|--------|-------------------------------------|----------------|---------------------|
| <b>20FR</b> | 2"     | SS                                  | Polycarbonate* | Rear                |
| <b>25FR</b> | 2 1/2" | SS                                  | Polycarbonate* | Rear                |
| <b>35FR</b> | 3 1/2" | SS                                  | Polycarbonate* | Rear                |
| <b>45FR</b> | 4 1/2" | SS                                  | Polycarbonate* | Rear                |
| <b>45FL</b> | 4 1/2" | Black Aluminum<br>(hinge ring type) | Glass          | Rear                |

**U-Clamp (Panel Mount)**


| Code        | Dial   | Case | Lens           | Connection Location |
|-------------|--------|------|----------------|---------------------|
| <b>20UR</b> | 2"     | SS   | Polycarbonate* | Rear                |
| <b>25UR</b> | 2 1/2" | SS   | Polycarbonate* | Rear                |
| <b>35UR</b> | 3 1/2" | SS   | Polycarbonate* | Rear                |

**Rear Flanged (Surface Mount)**


| Code        | Dial   | Case     | Lens           | Connection Location   |
|-------------|--------|----------|----------------|-----------------------|
| <b>20RR</b> | 2"     | SS       | Polycarbonate* | Rear                  |
| <b>35RR</b> | 3 1/2" | SS       | Polycarbonate* | Rear                  |
| <b>35RB</b> | 3 1/2" | SS       | Polycarbonate* | Bottom                |
| <b>45RR</b> | 4 1/2" | SS       | Polycarbonate* | Rear                  |
| <b>45RB</b> | 4 1/2" | SS       | Polycarbonate* | Bottom                |
| <b>45TB</b> | 4 1/2" | Phenolic | Glass**        | Bottom (Turret Mount) |

**Other Case Styles**


| Code        | Dial   | Case | Lens          | Connection Location*                        |
|-------------|--------|------|---------------|---------------------------------------------|
| <b>35SB</b> | 3 1/2" | SS   | Polycarbonate | Adjustable Bracket Mount                    |
| <b>45SB</b> | 4 1/2" | SS   | Polycarbonate | Mount                                       |
| <b>35DA</b> | 3 1/2" | SS   | Polycarbonate | "Direct" adj. Mount w/3.4 Cu bulb, 1/2" NPT |
| <b>45DA</b> | 4 1/2" | SS   | Polycarbonate |                                             |

\*Glass lens available, specify "Glass Lens"  
 \*\*Polycarbonate, lens available, specify "Poly Lens"  
 \*Specify Model & Range Only.  
 Example: **V45DA-80**

**REOTEMP INSTRUMENT CORPORATION**

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# Filled System Thermometers

## Vapor Actuated - How to Order

**Table 2 -- Temperature Ranges**

\*Ranges over 350°F come with 316SS Capillary only.

| Code | °F Range     | Code | °F and °C Ranges            |
|------|--------------|------|-----------------------------|
| 20   | -40 TO 60°F  | 21   | -40 TO 60°F & -40 TO 15°C   |
| 30   | -40 TO 110°F | 31   | -40 TO 110°F & -40 TO 40°C  |
| 32   | -20 TO 120°F | 33   | -20 TO 120°F & -30 TO 50°C  |
| 72   | 0 TO 180°F   | 73   | 0 TO 180°F & -20 TO 80°C    |
| 49   | 0 TO 150°F   | 79   | 0 TO 150°F & -15 TO 65°C    |
| 80   | 20 TO 220°F  | 81   | 20 TO 220°F & 0 TO 105°C    |
| 50   | 40 TO 240°F  | 51   | 40 TO 240°F & 0 TO 115°C    |
| 56   | 0 TO 250°F   | 57   | 0 TO 250°F & -20 TO 120°C   |
| 60   | 30 TO 300°F  | 61   | 30 TO 300°F & 0 TO 150°C    |
| 68*  | 100 TO 350°F | 66   | 100 TO 350°F & 40 TO 175°C  |
| 70*  | 200 TO 450°F | 71*  | 200 TO 450°F & 100 TO 230°C |

**Table 3 -- Capillary & Bulbs**

| Code | Capillary & Bulb Material | Capillary Protection |
|------|---------------------------|----------------------|
| A    | Copper                    | None                 |
| C    | Copper                    | Bronze Braid         |
| D    | 316 SS                    | None                 |
| E    | 316 SS                    | S.S. Armor           |

**Table 4 -- Capillary Length**

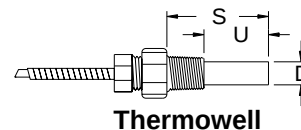
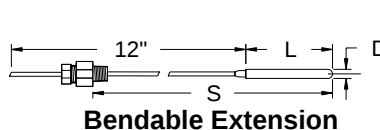
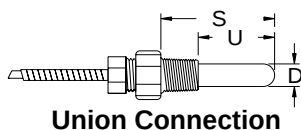
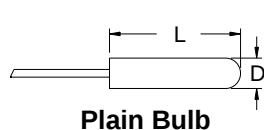
**Specify Length in feet.**  
**Standard Length = 5 Ft.**  
**Available Capillary Length: 1-100Ft.**  
 Note: Capillary Lengths over 5 feet affect bulb length.  
 See table at bottom of page.

**Table 5  
-- Process  
Connection**

**Thermowells  
For Vapor  
Actuated  
Bulbs  
(except M2)**

| Code                               | Connection Type                                                                                                                       | Material                                                                    |         |         |         |
|------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|---------|---------|---------|
| J1                                 | None (Plain Bulb)<br>Jam Nut Only<br>Jam Nut Only<br>1/2" NPT Union<br>1/2" NPT Union<br>1/2" NPT Sliding Union on Bendable Extension | Brass - (For Existing Brass Well)<br>316 SS - (For Existing Stainless Well) |         |         |         |
| J2                                 |                                                                                                                                       |                                                                             |         |         |         |
| J3                                 |                                                                                                                                       |                                                                             |         |         |         |
| K2                                 |                                                                                                                                       | Brass                                                                       |         |         |         |
| L2                                 |                                                                                                                                       | 316 SS                                                                      |         |         |         |
| M2                                 |                                                                                                                                       | 316 SS - (Only Avail. with 316 SS Capillary)                                |         |         |         |
|                                    |                                                                                                                                       | Brass                                                                       |         | 316 SS  |         |
|                                    |                                                                                                                                       | 1/2 NPT                                                                     | 3/4 NPT | 1/2 NPT | 3/4 NPT |
| For 1-10 ft. Capillary (bulb #1)   |                                                                                                                                       | 12B                                                                         | 13B     | 12S     | 13S     |
| For 11-25 ft. Capillary (bulb #2)  |                                                                                                                                       | 22B                                                                         | 23B     | 22S     | 23S     |
| For 26-50 ft. Capillary (bulb #3)  |                                                                                                                                       | 32B                                                                         | 33B     | 32S     | 33S     |
| For 51-75 ft. Capillary (bulb #4)  |                                                                                                                                       | 42B                                                                         | 43B     | 42S     | 43S     |
| For 76-100 ft. Capillary (bulb #5) |                                                                                                                                       | 52B                                                                         | 53B     | 52S     | 53S     |

### Bulb Configurations



### Standard Bulb Dimensions (inches)

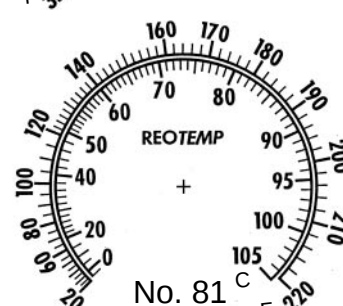
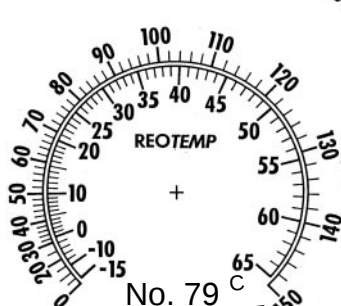
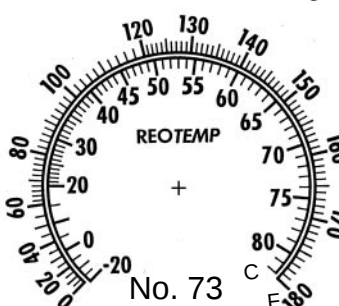
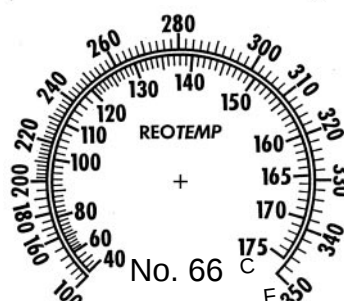
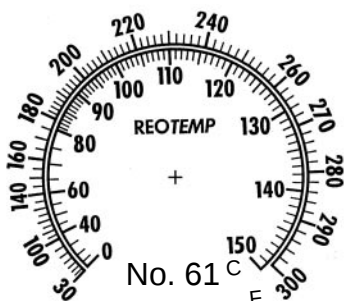
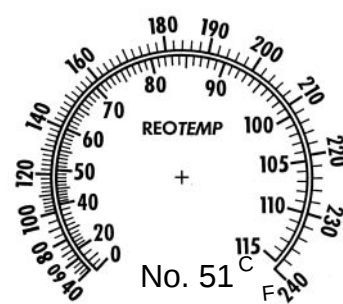
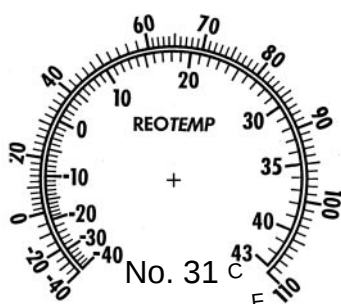
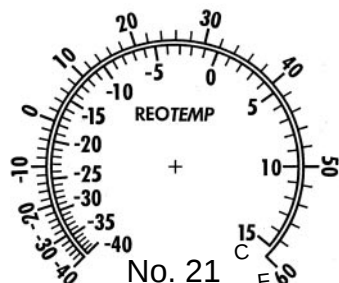
| CAPILLARY LENGTH     | PLAIN BULB                                                                        |     | UNION CONNECTION                |                               |      | THERMOWELL                      |                               |      | BENDABLE EXT.                                                                     |                  |     |
|----------------------|-----------------------------------------------------------------------------------|-----|---------------------------------|-------------------------------|------|---------------------------------|-------------------------------|------|-----------------------------------------------------------------------------------|------------------|-----|
|                      | L                                                                                 | D   | U                               | S                             | D    | U                               | S                             | D    | L                                                                                 | S                | D   |
| 1-10 ft. (bulb #1)   | 2 <sup>1</sup> / <sub>2</sub> (1-5ft.)<br>3 <sup>7</sup> / <sub>16</sub> (6-10ft) | 3/8 | 1 <sup>13</sup> / <sub>16</sub> | 2 <sup>3</sup> / <sub>8</sub> | 7/16 | 1 <sup>15</sup> / <sub>16</sub> | 2 <sup>1</sup> / <sub>2</sub> | 9/16 | 2 <sup>1</sup> / <sub>2</sub> (1-5ft.)<br>3 <sup>7</sup> / <sub>16</sub> (6-10ft) | 3 - 13<br>4 - 14 | 3/8 |
| 11-25 ft. (bulb #2)  | 3 <sup>7</sup> / <sub>16</sub>                                                    | 3/8 | 2 <sup>1</sup> / <sub>2</sub>   | 3 <sup>1</sup> / <sub>4</sub> | 7/16 | 2 <sup>5</sup> / <sub>8</sub>   | 3 <sup>3</sup> / <sub>8</sub> | 9/16 | 3 <sup>7</sup> / <sub>16</sub>                                                    | 4 - 14           | 3/8 |
| 26-50 ft. (bulb #3)  | 4 <sup>7</sup> / <sub>8</sub>                                                     | 3/8 | 4 <sup>1</sup> / <sub>2</sub>   | 5 <sup>1</sup> / <sub>4</sub> | 7/16 | 4 <sup>5</sup> / <sub>8</sub>   | 5 <sup>3</sup> / <sub>8</sub> | 9/16 | 4 <sup>7</sup> / <sub>8</sub>                                                     | 5 - 15           | 3/8 |
| 51-75 ft. (bulb #4)  | 7 <sup>7</sup> / <sub>8</sub>                                                     | 3/8 | 6 <sup>1</sup> / <sub>2</sub>   | 7 <sup>1</sup> / <sub>4</sub> | 7/16 | 6 <sup>5</sup> / <sub>8</sub>   | 7 <sup>3</sup> / <sub>8</sub> | 9/16 | 7 <sup>7</sup> / <sub>8</sub>                                                     | 8 - 18           | 3/8 |
| 76-100 ft. (bulb #5) | 10 <sup>7</sup> / <sub>8</sub>                                                    | 3/8 | 8 <sup>1</sup> / <sub>2</sub>   | 9 <sup>1</sup> / <sub>4</sub> | 7/16 | 8 <sup>5</sup> / <sub>8</sub>   | 9 <sup>3</sup> / <sub>8</sub> | 9/16 | 10 <sup>7</sup> / <sub>8</sub>                                                    | 11- 21           | 3/8 |

# Filled System Thermometers

## Vapor Actuated

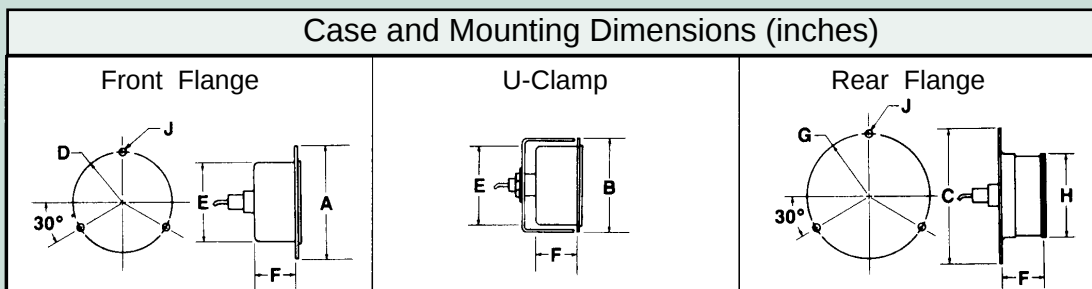
### Dial Faces

Typical dial faces shown below; complete list shown on page 19.  
Operating temperatures should be in upper 2/3 of selected range.



For Temperatures above or below those shown, ask for information on REOTEMP Gas Actuated Thermometers.

### Case and Mounting Dimensions (inches)



| Dial Sizes | A                | B    | C                   | D     | E                          | F                                       | G     | H    | J    |
|------------|------------------|------|---------------------|-------|----------------------------|-----------------------------------------|-------|------|------|
| 2"         | 2.94             | 2.25 | 2.94                | 1.25R | 2.05                       | 0.98                                    | 1.28R | 2.3  | 0.14 |
| 2 1/2"     | 3.69             | 2.81 |                     | 1.66R | 2.56                       | 1                                       |       |      | 0.17 |
| 3 1/2"     | 4.75             | 3.97 | 4.75                | 2.16R | 3.59                       | 1.41RF<br>.75UC, FF                     | 2.16R | 3.69 | 0.16 |
| 4 1/2"     | 5.88FR<br>6.31FL |      | 5.88RR,RB<br>5.83TB | 2.69R | 4.59FR<br>4.7RR,<br>RB, FL | 1.41RF<br>.75UC, FF<br>2.56TB<br>1.63FL | 2.69R | 4.69 | 0.22 |

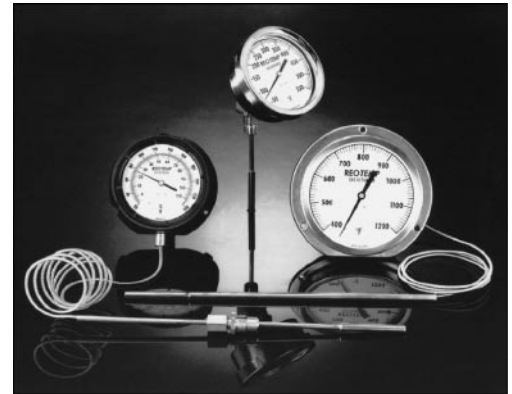
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REOTEMP Gas Actuated Thermometers combine advanced gas coil technology with a state-of-the-art adsorbent (Class IV) thermal system, producing a superior temperature measurement instrument that can be fitted to a wide variety of applications.

Features include high accuracy, low ambient error, and a high degree of over-range protection. The compact (3/8" dia. x 3" active length) bulb, and a wide range of case styles and thermal systems, allow great flexibility in installation.

The linear dial on all REOTEMP gas thermometers provides a consistent 1% accuracy across the full span of each range. This, combined with over twenty Fahrenheit and dual ranges, from -320 F to +1200 F, provides complete coverage of all normal temperature requirements.



## Specifications

**Accuracy:** +/- 1 % of full scale. Calibration to NIST traceable standards.

**Ranges:** Twenty °F and °F & °C ranges available from -320°F to 1200°F.

**Overrange:** Minimum 50% of span above top of range, or 1300°F, whichever is less.

**Ambient Error:** 1/4% of span per 25°F change in ambient temperature at midscale.

**Dial Sizes:** 4 1/2" & 6". Dials are white with black markings.

**Case Materials:** Stainless steel, Phenolic, or Aluminum.

**Case Styles:** Panel Mount, Surface Mount, or Direct (stem) Mount.

**Windows:** Glass is standard. Shatterproof glass and acrylic are optional.

**Pointers:** Slotted adjustable type to permit zero-set adjustments.

**Bulbs:** 316 Stainless Steel, 3/8" dia. x 3" active length. Other diameters and lengths are available.

**Process Connections:** Plain bulb; 1/2" NPT sliding union; 1/2" NPT fixed (on All-Angle); or thermowell. *Note: Thermowells should be used whenever the bulb would be exposed to pressure, fluid velocity, or corrosive or abrasive media.*

**Thermal Systems:** Stainless steel capillary with stainless steel spring armor (up to 40ft). Over 40 feet, stainless steel interlock armor is standard. Direct mount stems, 316 SS, 4" to 48".

# Filled System Thermometers

## Gas Actuated - How to Order

**Table 1**  
Case Size  
& Style

|   |   |   |   |   |  |
|---|---|---|---|---|--|
| G |   |   |   |   |  |
| G | 4 | 5 | E | R |  |

**Table 2**  
Thermal System  
& Bulb

|   |   |
|---|---|
|   |   |
| 8 | 7 |

**Table 3**  
Capillary Length  
(feet)

|   |   |   |
|---|---|---|
| L |   |   |
| L | 1 | 5 |

**Table 4**  
Temperature

|   |   |
|---|---|
|   |   |
| F | B |

**Table 5**  
Options

|   |   |   |
|---|---|---|
| X |   |   |
| X | A | W |

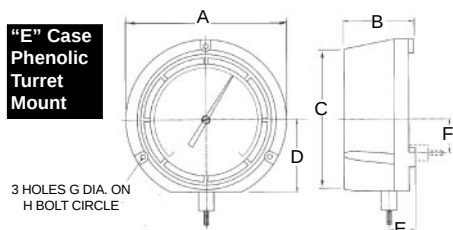
**Table 1-Case Style**

Wall Mount ("E" or "K" case)

| CASE CODE | CASE DIAMETER | CONNECTION |
|-----------|---------------|------------|
|-----------|---------------|------------|

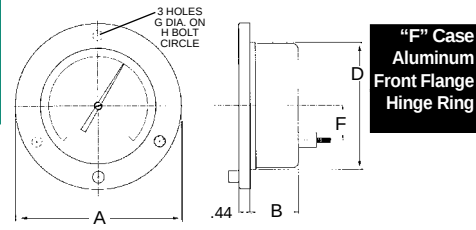
Panel Mount ("F", "S" or "U" case)

**"E" Case**  
Phenolic  
Turret  
Mount



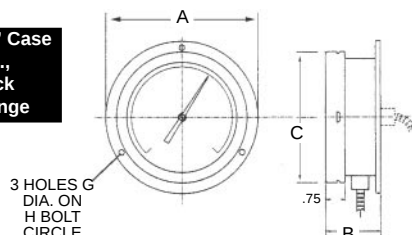
|       |        |       |
|-------|--------|-------|
| G45ER | 4 1/2" | REAR  |
| G45EL | 4 1/2" | LOWER |

|       |        |      |
|-------|--------|------|
| G45FR | 4 1/2" | REAR |
| G60FR | 6"     | REAR |



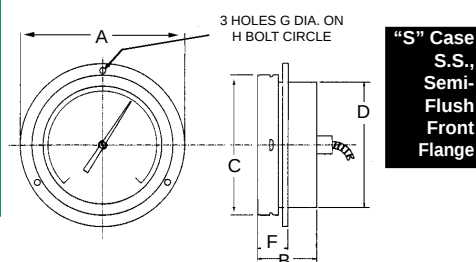
**"F" Case**  
Aluminum  
Front Flange  
Hinge Ring

**"K" Case**  
S.S.,  
Back  
Flange



|       |        |       |
|-------|--------|-------|
| G45KR | 4 1/2" | REAR  |
| G45KL | 4 1/2" | LOWER |
| G60KR | 6"     | REAR  |
| G60KL | 6"     | LOWER |

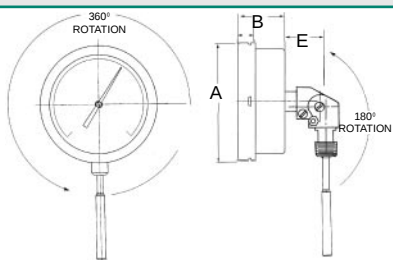
|       |        |      |
|-------|--------|------|
| G45SR | 4 1/2" | REAR |
| G60SR | 6"     | REAR |



**"S" Case**  
S.S.,  
Semi-Flush  
Front Flange

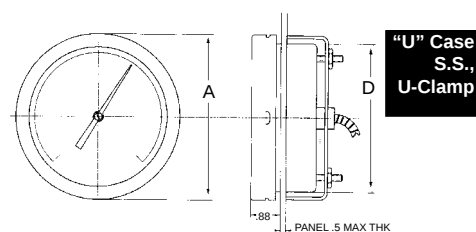
Direct Mount ("D" case)

**"D" Case**  
S.S.,  
All-Angle  
Direct  
Mount



|       |        |        |
|-------|--------|--------|
| G45DA | 4 1/2" | ADJUST |
| G60DA | 6"     | ADJUST |

|       |        |      |
|-------|--------|------|
| G45UR | 4 1/2" | REAR |
| G60UR | 6"     | REAR |



**"U" Case**  
S.S.,  
U-Clamp

**Case Dimensions**

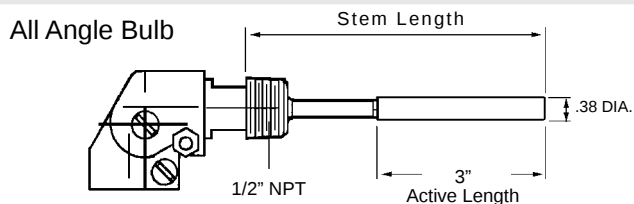
| Case Size | Case | Type            | A    | B    | C    | D    | E    | F    | G    | H    |
|-----------|------|-----------------|------|------|------|------|------|------|------|------|
| 4 1/2"    | "E"  | Turret Phenolic | 5.83 | 2.56 | 5.08 | 2.62 | 1.0  | .20  | .24  | 5.39 |
| 4 1/2"    | "F"  | Front Flange    | 6.31 | 1.63 | -    | 4.88 | -    | 1.35 | .19  | 5.38 |
| 4 1/2"    | "K"  | Back Flange     | 5.88 | 2.15 | 5.04 | -    | -    | -    | 0.22 | 5.38 |
| 4 1/2"    | "S"  | Semi-Flush      | 5.88 | 2.15 | 5.04 | 4.51 | -    | 1.00 | 0.22 | 5.38 |
| 4 1/2"    | "D"  | All Angle       | 5.04 | 2.00 | -    | -    | 1.70 | -    | -    | -    |
| 4 1/2"    | "U"  | U-Clamp         | 5.04 | -    | -    | 4.51 | -    | -    | -    | -    |
| 6"        | "F"  | Front Flange    | 7.87 | 1.59 | -    | 6.34 | -    | 1.75 | 0.19 | 6.69 |
| 6"        | "K"  | Back Flange     | 7.50 | 2.15 | 6.38 | -    | -    | -    | 0.25 | 6.84 |
| 6"        | "S"  | Semi-Flush      | 7.50 | 2.15 | 6.38 | 5.88 | -    | 1.00 | 0.25 | 6.84 |
| 6"        | "D"  | All Angle       | 6.38 | 2.15 | -    | -    | 1.70 | -    | -    | -    |
| 6"        | "U"  | U-Clamp         | 6.38 | -    | -    | 5.88 | -    | -    | -    | -    |

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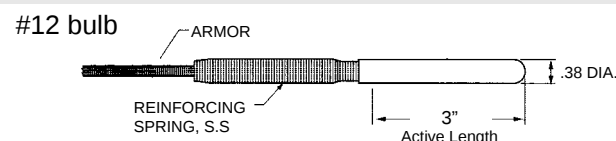
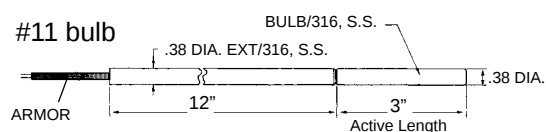
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**Table 2-Thermal Systems** (all bulbs & capillaries are 316 SS)

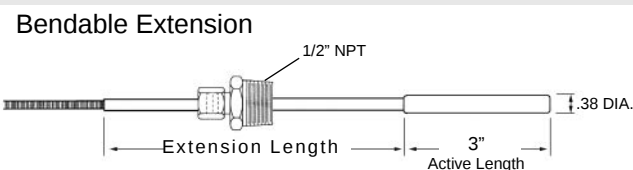
| CODE                                                             | DESCRIPTION                                                                                 |
|------------------------------------------------------------------|---------------------------------------------------------------------------------------------|
| <b>All Angle Direct Mount with 1/2" NPT (with "D" case only)</b> |                                                                                             |
| <b>04</b>                                                        | 4" stem x 3/8" diameter                                                                     |
| <b>06</b>                                                        | 6" stem x 3/8" diameter                                                                     |
| <b>09</b>                                                        | 9" stem x 3/8" diameter                                                                     |
| <b>0X</b>                                                        | 12" or longer stem x 3/8" dia. - specify stem length<br><b>EXAMPLE: G45DA - 0X - 12" FB</b> |



| <b>Plain Bulbs</b> |                                                     |
|--------------------|-----------------------------------------------------|
| <b>11</b>          | Plain bulb, 3/8" x 3" active, + 12" rigid extension |
| <b>12</b>          | Plain bulb, 3/8" x 3" active                        |



| <b>Sliding 1/2" NPT on Bendable Extension</b> |                                               |
|-----------------------------------------------|-----------------------------------------------|
| <b>87</b>                                     | 3/8" x 3" active, 12" bendable extension      |
| <b>88</b>                                     | 3/8" x 3" active, 18" bendable extension      |
| <b>8X</b>                                     | 3/8" x 3" active, over 18" bendable (Specify) |



**Table 3-Capillary Length**

Specify Armored Capillary Length in Feet, up to 99 ft. (omit for "D" case).

**L05** = 5 feet      **L10** = 10 feet      **L15** = 15 feet...etc.

Note: Stainless steel spring armor is standard protection on all capillary. Capillary over 40 feet requires XSI Spiral Interlock Armor option.

**Table 4-Temperature Ranges**

| CODE      | °F RANGES   | DIV. |
|-----------|-------------|------|
| <b>FB</b> | -320/100°F  | 5°   |
| <b>FE</b> | -120/120° F | 2°   |
| <b>FG</b> | -40/180°F   | 2°   |
| <b>FH</b> | 0/120°F     | 1°   |
| <b>FJ</b> | 60/120°F    | 1°   |
| <b>FL</b> | 20/240°F    | 2°   |
| <b>FN</b> | 0/300°F     | 5°   |
| <b>FP</b> | 50/550°F    | 5°   |
| <b>FR</b> | 50/750°F    | 5°   |
| <b>FS</b> | 200/1000°F  | 10°  |
| <b>FT</b> | 400/1200°F  | 10°  |

| CODE      | °F & °C RANGES         | DIV.    |
|-----------|------------------------|---------|
| <b>DB</b> | -320/100°F / -200/40°C | 5°/2°   |
| <b>DE</b> | -120/120°F / -85/50°C  | 2°/1°   |
| <b>DG</b> | -40/180°F / -40/80°C   | 2°/2°   |
| <b>DH</b> | 0/120°F / -15/50°C     | 1°/1°   |
| <b>DJ</b> | 60/120°F / 15/50°C     | 1°/1/2° |
| <b>DL</b> | 20/240°F / -5/110°C    | 2°/1°   |
| <b>DN</b> | 0/300°F / -10/150°C    | 5°/1°   |
| <b>DP</b> | 50/550°F / 10/290°C    | 5°/5°   |
| <b>DR</b> | 50/750°F / 0/400°C     | 5°/5°   |
| <b>DT</b> | 400/1200°F / 200/650°C | 10°/5°  |

Note: °C Ranges available on request

# Filled System Thermometers

## Gas Actuated

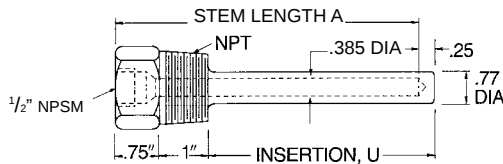
**Table 5 - Accessories & Options**

| Code       | Description                                                                               |
|------------|-------------------------------------------------------------------------------------------|
| <b>XAW</b> | Acrylic Window (4 1/2" Cases only; not available in "F" Case).                            |
| <b>XSG</b> | Safety Glass Window (4 1/2" Cases only; not available in "F" Case).                       |
| <b>XFR</b> | Flush Mounting Ring for "E" Case.                                                         |
| <b>XBF</b> | 1/2" NPT Fitting for #11 Bulb - Fits on Bulb or extension.                                |
| <b>XCF</b> | 1/2" NPT Fitting - Fastens on spiral interlock armor (requires XSI option).               |
| <b>XSI</b> | Spiral Interlock Armor (required over 40 feet).                                           |
| <b>XVD</b> | Vibration Dampening feature (dampens vibration - available in all rear connected models). |
| <b>XTW</b> | Thermowell (see thermowell table below for order codes).                                  |

### Thermowells for 3/8" dia. Elements

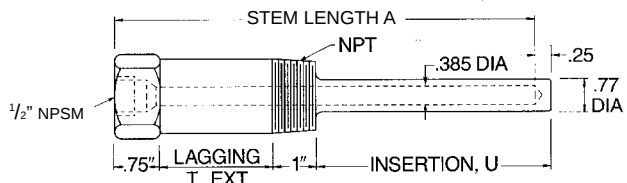
#### Standard Wells

| External Thread<br>P | Stem length<br>A" | Insert Length<br>U" | Order Code |            |
|----------------------|-------------------|---------------------|------------|------------|
|                      |                   |                     | 304 s.s.   | 316 s.s.   |
| 3/4" NPT             | 4                 | 2 1/2               | <b>046</b> | <b>146</b> |
|                      | 6                 | 4 1/2               | <b>047</b> | <b>147</b> |
|                      | 9                 | 7 1/2               | <b>048</b> | <b>148</b> |
|                      | 12                | 10 1/2              | <b>049</b> | <b>149</b> |
|                      | 15                | 13 1/2              | <b>050</b> | <b>150</b> |
|                      | 18                | 16 1/2              | <b>051</b> | <b>151</b> |
| 1" NPT               | 24                | 22 1/2              | <b>052</b> | <b>152</b> |
|                      | 4                 | 2 1/2               | <b>053</b> | <b>153</b> |
|                      | 6                 | 4 1/2               | <b>054</b> | <b>154</b> |
|                      | 9                 | 7 1/2               | <b>055</b> | <b>155</b> |
|                      | 12                | 10 1/2              | <b>056</b> | <b>156</b> |
|                      | 15                | 13 1/2              | <b>057</b> | <b>157</b> |
|                      | 18                | 16 1/2              | <b>058</b> | <b>158</b> |
|                      | 24                | 22 1/2              | <b>059</b> | <b>159</b> |



#### Lagging Wells

| External Thread<br>P | Stem length<br>A" | Insert Length<br>U" | Lag Ext.<br>T" | Order Code |            |
|----------------------|-------------------|---------------------|----------------|------------|------------|
|                      |                   |                     |                | 304 s.s.   | 316 s.s.   |
| 3/4" NPT             | 6                 | 2 1/2               | 2              | <b>247</b> | <b>347</b> |
|                      | 9                 | 4 1/2               | 3              | <b>248</b> | <b>348</b> |
|                      | 12                | 7 1/2               | 3              | <b>249</b> | <b>349</b> |
|                      | 15                | 10 1/2              | 3              | <b>250</b> | <b>350</b> |
|                      | 18                | 13 1/2              | 3              | <b>251</b> | <b>351</b> |
|                      | 24                | 16 1/2              | 3              | <b>252</b> | <b>352</b> |



#### How to Order

Specify **"TW"** Plus Order Code

Example: **TW-146**

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### Available in Four styles

**45GW**

WALL MOUNTED

**45GF**

FLUSH MOUNTED

**45GFF**

FRONT FLANGE

**45GAW**

ADJUSTABLE WALL

### Specifications

|                   |                                                                       |
|-------------------|-----------------------------------------------------------------------|
| <b>CASE:</b>      | Stainless Steel (SS)                                                  |
| <b>DIAL FACE:</b> | 4 1/2" Satin Finish Aluminum, Black Lines and Numbers.                |
| <b>LENS:</b>      | Gasket Sealed Glass (Plexi Glass Optional)                            |
| <b>POINTER:</b>   | Micrometer Adjustment Type                                            |
| <b>CAPILLARY:</b> | SS Protected by 1/4" Dia. Flexible SS Armor or 3/16" Dia. Plain Armor |
| <b>BULB:</b>      | SS Welded Construction                                                |
| <b>ACTUATION:</b> | Nitrogen thru SS Direct Drive Bourdon Coil                            |
| <b>ACCURACY:</b>  | +/- 1 % of Range Span                                                 |

REOTEMP's Rugged Direct Drive System makes our 45G series gas actuated series the right choice for temperature indication in heavy duty or high vibration applications.

Its all-stainless steel case and internals, along with the direct drive system, result in superior instrument life in severe environments.

#### NITROGEN FILLED DIRECT DRIVE SYSTEM



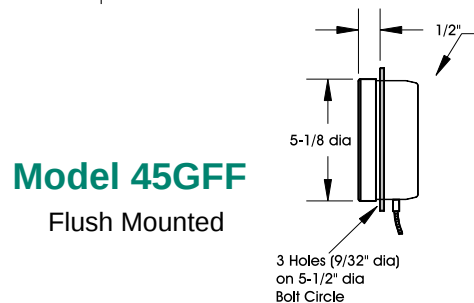
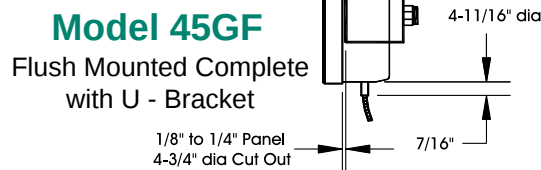
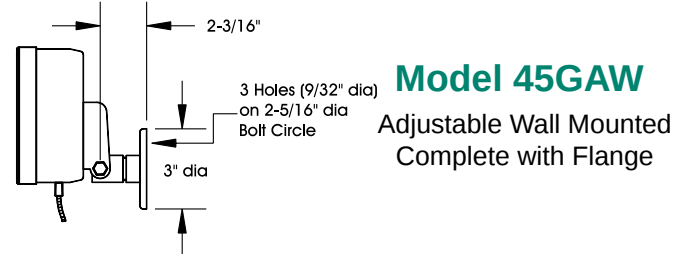
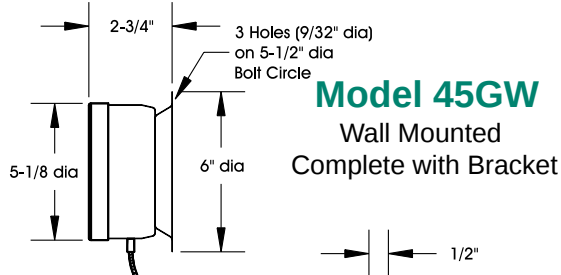
### Temperature Ranges

| Celsius Ranges |            | Fahrenheit Ranges |            |
|----------------|------------|-------------------|------------|
| <b>00</b>      | -200/100°C | <b>16</b>         | -350/150°F |
| <b>01</b>      | -100/100°C | <b>17</b>         | -100/100°F |
| <b>02</b>      | -30/60°C   | <b>19</b>         | -30/120°F  |
| <b>04</b>      | -10/80°C   | <b>20</b>         | -40/200°F  |
| <b>05</b>      | -30/120°C  | <b>21</b>         | 0/100°F    |
| <b>06</b>      | -10/150°C  | <b>23</b>         | 0/150°F    |
| <b>07</b>      | 0/100°C    | <b>24</b>         | 25/125°F   |
| <b>08</b>      | 0/200°C    | <b>25</b>         | 0/200°F    |
| <b>09</b>      | 0/240°C    | <b>26</b>         | 0/240°F    |
| <b>10</b>      | 0/300°C    | <b>27</b>         | 0/300°F    |
| <b>11</b>      | 0/400°C    | <b>30</b>         | 0/400°F    |
| <b>12</b>      | 100/400°C  | <b>31</b>         | 0/500°F    |
| <b>13</b>      | 0/500°C    | <b>32</b>         | 0/600°F    |
| <b>14</b>      | 0/600°C    | <b>34</b>         | 0/800°F    |
| <b>39</b>      | 0/50°C     | <b>36</b>         | 0/1200°F   |
|                |            | <b>38</b>         | 20/240°F   |

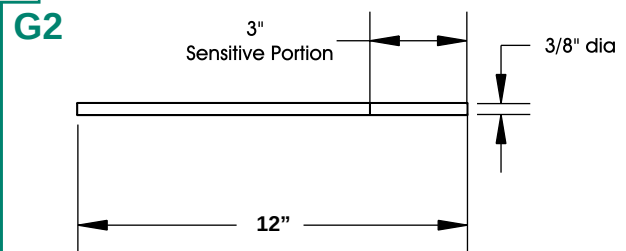
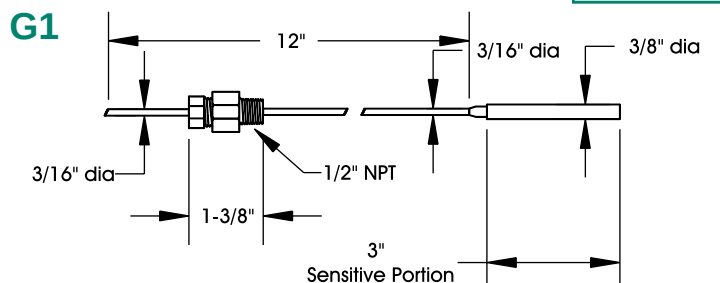
# Filled Systems Thermometers

## Direct Drive Gas Filled Remote

### Case Specifications



### Bulbs



3/8" dia. bulb with 3/16" bendable complete with 1/2" NPT compression fitting; All SS

3/8" dia. bulb with 3/8" extension up to 48" with optional 1/2" NPT compression fitting; All SS

### How to Order

**45GW**
**06**
**08**
**G118**
**SG**

| Model                                   | Armored Capillary Length                 | Temperature Range        | Bulb Type                                                   | Accessories<br>for Thermowells see pg. 24 |
|-----------------------------------------|------------------------------------------|--------------------------|-------------------------------------------------------------|-------------------------------------------|
| <b>45GW</b> = Wall Mount                | <b>05</b> = 5 Feet                       | See chart on<br>Page 25. | <b>G112</b> = 12" Bendable Extension<br>with 1/2" NPT Union | <b>EC</b> = Electrical<br>Contacts        |
| <b>45GF</b> = Flush Mount               | <b>06</b> = 6 Feet                       |                          | <b>G118</b> = 18" Bendable Extension<br>with 1/2" NPT Union | <b>MP</b> = Max Hand Pointer              |
| <b>45GFF</b> = Front Flange             | <b>10</b> = 10 Feet                      |                          | <b>G212</b> = 12" Plain Bulb with Rigid<br>Extension        | <b>SG</b> = Tempered Glass                |
| <b>45GAW</b> = Adjustable<br>Wall Mount | <b>Other</b> = Specify Length<br>in Feet |                          | <b>G224</b> = 24" Plain Bulb with 1/2"<br>NPT Union         | <b>PY</b> = Polycarbonate<br>Crystal      |

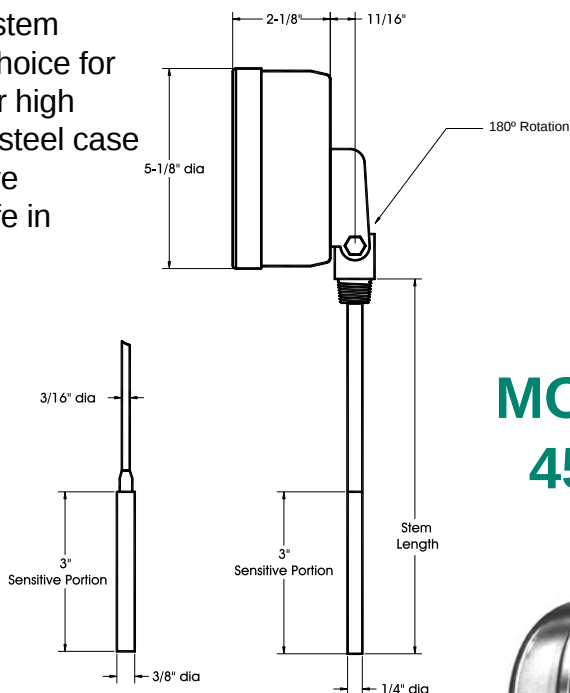
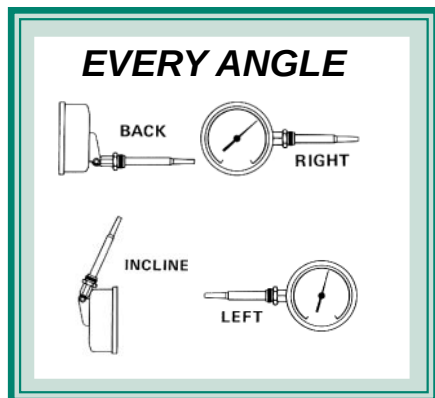
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# Filled Systems Thermometers

## Direct Drive Gas & Liquid Filled

REOTEMP's Rugged Direct Drive System makes our **45GR** and **45LR** the right choice for temperature indication in heavy duty or high vibration applications. Its all-stainless steel case and internals, along with the direct drive system, result in superior instrument life in severe environments.



**MODEL 45LR**



**MODEL 45GR**

### Specifications:

|                   |                                                                                                                                                                                        |
|-------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>CASE:</b>      | Stainless Steel (SS)                                                                                                                                                                   |
| <b>DIAL FACE:</b> | 4 1/2" Satin Finish Aluminum, Black Lines and Numbers                                                                                                                                  |
| <b>LENS:</b>      | Gasket Sealed Glass (Polycarbonate Optional)                                                                                                                                           |
| <b>POINTER:</b>   | Micrometer Adjustment Type                                                                                                                                                             |
| <b>BULB:</b>      | SS Welded Construction                                                                                                                                                                 |
| <b>ACTUATION:</b> | <b>45 LR</b> - Inert Liquid thru SS Direct Drive Bourdon Coil (For *ranges, Nitrogen thru SS), Direct Drive Bourdon Coil.<br><b>45GR</b> - Nitrogen thru SS Direct Drive Bourdon Coil. |
| <b>ACCURACY:</b>  | +/- 1 % of Range Span                                                                                                                                                                  |

### How to Order

**45GR**

**06**

**08**

**ST6 316**

| Model                                             | Stem Length                  | Temperature Range        | Accessories                                                                                                    |               |                |                |
|---------------------------------------------------|------------------------------|--------------------------|----------------------------------------------------------------------------------------------------------------|---------------|----------------|----------------|
| <b>45GR</b> = Gas Actuated<br>3/8" Stem           | <b>02</b> = 2 1/2" (LR Only) | See chart on<br>Page 25. | Standard Thermowells (3/4"NPT, 316SS)                                                                          |               |                |                |
|                                                   | <b>04</b> = 4"               |                          | Stem Length                                                                                                    | "U" Dim.      | 1/4" element   | 3/8" element   |
| <b>06</b> = 6"                                    | 4"                           |                          | 2.5"                                                                                                           | <b>ST4316</b> | <b>GXTW146</b> |                |
| <b>45LR</b> = Inert Liquid<br>Actuated, 1/4" Stem | <b>09</b> = 9"               |                          | 6"                                                                                                             | 4.5"          | <b>ST6316</b>  | <b>GXTW147</b> |
|                                                   | <b>12</b> = 12"              |                          | 9"                                                                                                             | 7.5"          | <b>ST9316</b>  | <b>GXTW148</b> |
|                                                   | <b>15</b> = 15"              |                          | (More wells on: p.14 p.24)                                                                                     |               |                |                |
|                                                   |                              |                          | <b>EC</b> = Elec. Connection <b>SG</b> = Tempered Glass<br><b>MP</b> = Max Pointer <b>PY</b> = Plastic Crystal |               |                |                |

# Thermocouples & RTD's

## See Our New Catalog

## Thermocouples & RTD's

*Please see our new TC & RTD catalog (RTDTC)  
for product information & part number  
builders.*

### Complete Assemblies



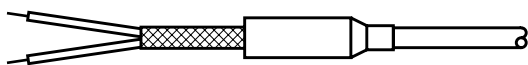
see catalog # RTDTC, pp. 3-5

### Stem Assemblies



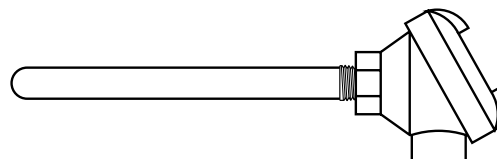
see catalog # RTDTC, p. 6

### Leadwire



see catalog # RTDTC, p. 7

### Metal Protection Tube Assemblies



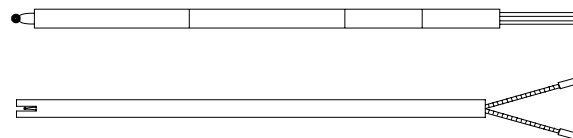
see catalog # RTDTC, p. 8

### Ceramic Protection Tube Assemblies



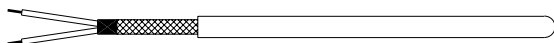
see catalog # RTDTC, p. 9

### Replacement Elements



see catalog # RTDTC, p. 10

### Cut-to-Length



see catalog # RTDTC, p. 11

### Plastics Thermocouples



see catalog # RTDTC, p. 12

*Continued on p. 29*

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# Thermocouples & RTD's Cont. See Our New Catalog

## Melt Bolt Thermocouples



see catalog # RTDTC, p.13

## Plain Wire & Bulk Wire



see catalog # RTDTC, p.14

## Hand Held Digitals/Probes



see catalog # RTDTC, p.15

## 3A Sanitary RTD's & TC's



see catalog # RTDTC, pp.16-17

## Thermowells



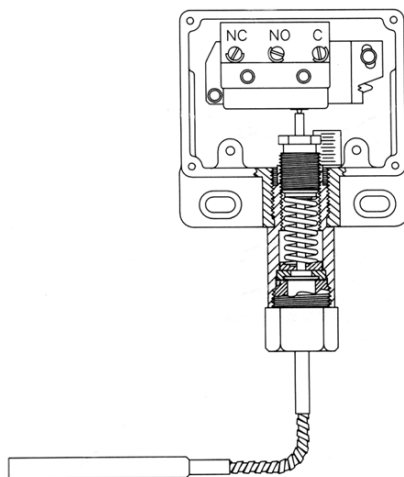
see catalog # RTDTC, pp.18-19

## Accessories



see catalog # RTDTC, p.19

# Temperature Switches



## Standard Features

- Adjustable ranges - 50°F to 1,000°F
- NEMA 4X or Explosion-proof housing
- 3 year factory warranty
- Direct or Remote Mount
- SPDT or DPDT, 15A Switch
- 1/2" NPTM Process Connection
- 316SS, 3/8" diameter stem

**Other styles available-  
Call for more information.**

# Digital Thermometer

## Solar Digital Thermometer



- | Powered by ambient light, down to 30LUX (45 LUX for temperatures above 212 °F)
- | Bright 3 digit LCD display
- | Switchable from °F (-58 to 300°F) to °C (-50 to 150 °C)
- | All Stainless Steel NEMA 4X case
- | 1/4" stem available in several standard lengths, or optional to 60"

Reotemp's Solar Digital Thermometers are powered by solar cells for viewing in any lighted area. The large 3 1/2" digit display has a resolution of + 0.1°F or °C. All stainless steel case construction is standard in either back or adjustable angle connection.

### How to Order

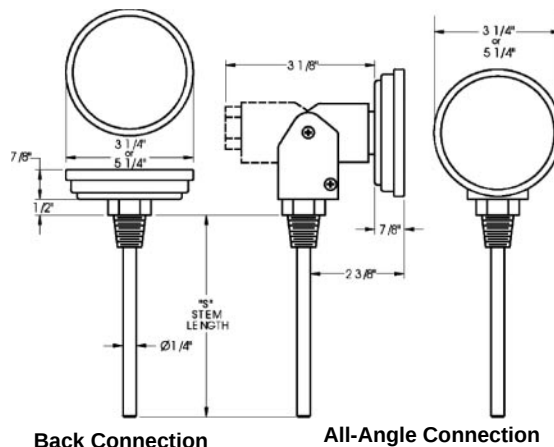
**SD** — **A** — **025**

| Model     | Configuration                   | Stem Length                |
|-----------|---------------------------------|----------------------------|
| <b>SD</b> | <b>3" Dial</b>                  | <b>025</b> = 2.5"          |
|           | <b>A</b> = Back connection      | <b>040</b> = 4"            |
|           | <b>L</b> = All-Angle connection | <b>060</b> = 6"            |
|           | <b>5" Dial</b>                  | <b>090</b> = 9"            |
|           | <b>B</b> = Back connection      | <b>120</b> = 12"           |
|           | <b>J</b> = All-Angle connection | *Specify other stem length |

| Options:                   | Options-Special Order |
|----------------------------|-----------------------|
| <b>PS</b> -Pointed Stem    | <b>S3</b> -3/8" Stem  |
| <b>PC</b> -Plastic Crystal | <b>SS</b> -316SS      |

### Specifications:

**Temperature Range:** -58 to 300°F or -50 to 150°C (switchable)  
**Case:** 304 stainless steel, NEMA 4X, 3" or 5" dial  
**Stem:** 1/4" diameter, 2 1/2" to 48" (optional: 3/8" dia. up to 72")  
**Lens:** Glass (Plastic available)  
**Sensor:** Thermistor, powered by 1.5 V solar cells, requiring only 30 Lux below 212°F and 45LUX above 212°F.  
**Update Interval:** 10 sec.  
**Display:** LCD, 0.5" height, 3 digit  
**Accuracy:** 1% full scale up to 212°F (over 212°F: 1.5% in 45 LUX and up)  
**Connection:** 1/2" NPT (other threads available)



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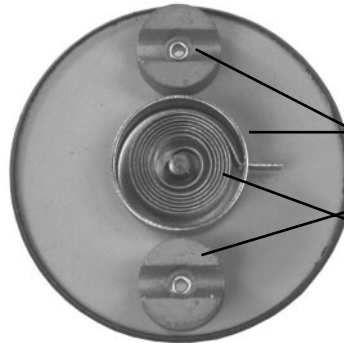
# Bimetal Thermometers Surface Thermometers

**REOTEMP**

## Specifications

**Accuracy** - Within 2% of full scale  
**Head** - 2" (5.08cm)  
**Dial** - White Background, blue marks & numbers  
**Height** - 1/2" (1.27cm)  
**Weight** - 2 ounces (56.7G) approx.  
**Case** - aluminum with optically clear crystal  
**Sensing Element** - precision calibrated bimetal coil  
**Response Time** - approximately 1 minute  
**Mounting** - two Alnico magnets on back

- Measures Temperature of any Horizontal Surface
- Magnetic Feet hold to any Ferrous Surface
- Used on Griddles, Ovens, Motors, Piping, Tanks, etc..



Front View

Back View

Protective Cover and Heat Collector

Magnets

Bimetal Sensing Element

## How to Order

| Model #       | Temperature Ranges      |
|---------------|-------------------------|
| <b>SUR-15</b> | 0 to 150°F/-20 to 65°C  |
| <b>SUR-25</b> | 0 to 250°F/-20 to 120°C |
| <b>SUR-50</b> | 0 to 500°F/-20 to 260°C |
| <b>SUR-75</b> | 50 to 750°F/10 to 400°C |

# Bimetal Thermometers Pocket Thermometers

**REOTEMP**

## Analog (Dial) Models

### Model K-79

- Accurate & Rugged
- Quick Response
- Shock Resistant
- Sensitive Bimetal Element
- External Reset Adjustment
- Waterproof and Dustproof
- Stainless Steel or Plastic Pocket Case



## Digital Pocket Thermometer

### Model D-450

- Resolution 0.1°F
- Stainless Steel Stem, .14 x 5"
- Accuracy 1% of span
- Comes with Pocket Case
- 1/4" High LCD Display



Also Available: D-302, -58 to 320°F

## Specifications

**Accuracy** - 1% of Scale  
**Head** - 1" Diameter (25mm)  
**Dial** - White Background with crisp letters, marks, and numbers.  
**Stem** - .142 OD, 5" long, pointed (3.6mm x 127mm)  
**Reset Nut** - 7/16" Hex (11mm)  
**Pocket Case** - Stainless Steel or Plastic with Clip and Holder Loop  
**Weight** - .65 ounces (18.5G)  
**Packed** - 1 per box, 12 per carton

| Model #        | Temperature Ranges |
|----------------|--------------------|
| <b>Analog</b>  |                    |
| <b>K-79-2</b>  | -40 to 160°F       |
| <b>K-79-3</b>  | 0 to 220°F         |
| <b>K-79-4</b>  | 25 to 125°F        |
| <b>K-79-5</b>  | 50 to 550°F        |
| <b>K-79-7</b>  | -10 to 110°C       |
| <b>K-79-8</b>  | 0 to 150°C         |
| <b>K-79-9</b>  | 0 to 250°C         |
| <b>Digital</b> |                    |
| <b>D-450</b>   | -40 to 450°F       |
| <b>D-302</b>   | -58 to 302°F       |

## Digital Specifications

|                     | <u>D-450</u>   | <u>D-302</u> |
|---------------------|----------------|--------------|
| <b>Range</b>        | -40/450° F     | -58/302° F   |
| <b>Resolution</b>   | 0.1° F         | 0.1° F       |
| <b>Accuracy</b>     | ± 0.8% of span | ± 1% span    |
| <b>Display</b>      | 1/4" LCD       | 1/4" LCD     |
| <b>OFF Function</b> | 50 Min. Auto   | Manual       |
| <b>Update</b>       | 10 Seconds     | 4 Seconds    |

# Other REOTEMP Products

## Pressure Products (Catalog # RPP)



- Pressure Gauges
- Diaphragm Seals
- Pressure Transmitters
- Sanitary Products
- Pressure Switches

## Thermocouples & RTD's (Catalog # RTDTC)



- Head Assemblies
- Stem Assemblies
- Custom Lead Wire Configuration
- Sanitary 3-A RTD's
- Transmitters
- Digital displays
- Thermowells & Accessories
- Specialty Thermocouples
  - Cut-to-Length
  - Ceramic Tube
  - Metal Tube
  - Bare Wire
  - Plastics
  - Melt Bolt
- Bulk Thermocouple Wire

## REOTEMP Guarantee & Warranty Information

### Five Year Warranty

We warrant 3", 4", and 5" dial bimetal thermometers\* against defective materials or workmanship under normal use and service for five (5) years following date of shipment. This warranty does not cover exposure to corrosive materials, temperatures in excess of those recommended, excessive vibration, or forces or abrasions which cause bending or unsealing of the case or stem.

### One Year Warranty

All other REOTEMP temperature instruments, except for hand held digital thermometers and associated probes\*\*, are warranted for one year from date of receipt to be free of manufacturer's defects in material and workmanship.

### Our Guarantee

Reotemp guarantees the products will perform within the cataloged performance specifications if used within specified parameters. Determination of defect or failure will be made at Reotemp or at a certified test facility. Warranty is limited to replacement or repair at factory. This warranty is expressly in lieu of any other warranty, expressed or implied, and of all other obligations or liability on our part for damages, including but not limited to, consequential damages arising out of use or misuse of our temperature instruments, and we neither assume nor authorize anyone to assume for us, any other liability in connection with the sale of our instruments or sensors. Suitability of product for the customer's application rests with the customer; REOTEMP does not warrant suitability of its product for the application selected by customer.

\* The thermometers covered by this warranty are all 3", 4", and 5" dial bimetal thermometers except those with plastic crystals, silicone filling, stems exceeding 36", and minimum - maximum pointers.

\*\* Digital Thermometers and associated probes are warranted for 90 days from date of purchase.

REOTEMP reserves the right to make product improvements and change its specification stated throughout this catalog at anytime without notification. Please contact the factory on all critical dimensions and specifications for verification.