

## ADJUSTABLE ANGLE BIMETAL THERMOMETER

Reotemp's Bimetal Thermometers are reliable and accurate temperature sensors requiring no electricity or wiring. Adjustable Angle Thermometers allow for easy temperature monitoring from any position and they are ideal for local indication. They can be recalibrated with a turn of the calibration screw on the back of the dial.



Fillable



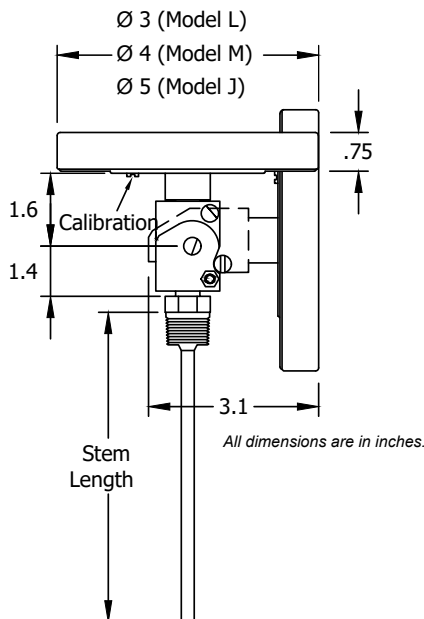
Dials



Accuracy



Custom Logo



### FEATURES / BENEFITS

- Heavy-Duty Process Grade Design
- Five Year Warranty
- Made in the USA
- Dial is Adjustable to Any Position for Easy Viewing
- Accuracy  $\pm 1\%$  Full Scale. (ASME B40.3)
- Hermetically Sealed (ASME B40.3)
- Standard External Reset for Easy Calibration
- Silicone Fillable for Vibration

### SPECIFICATIONS

|   |  |
|---|--|
| <b>Accuracy</b>                             | $\pm 1\%$ Full Scale (ASME B40.3)  |
| <b>Dial Size</b>                            | 3", 4" or 5"   |
| <b>Dial Material</b>                        | Black marks on satin matte aluminum finish, Hi-Vis™, or white dial   |
| <b>Stem Length</b>                          | 2" to 80"  |
| <b>Stem Diameter</b>                        | 1/4" (Standard), 3/8" or 5/16"   |
| <b>Head, Bezel, Mounting Bushing, Stems</b> | 300 Series SS, 316SS (Optional)  |
| <b>Operating Conditions</b>                 | Head temperature should not exceed 200°F (150°F if silicone filled). Stem should not be exposed to continuous temperatures exceeding 50% over-range or 800°F (550°F if silicone filled). |
| <b>Environmental Protection</b>             | IP67, NEMA 6 Rated (Hermetically sealed per ASME B40.3)  |
| <b>Lens</b>                                 | Glass (Standard), Acrylic, Polycarbonate, Laminated Safety Glass or Tempered Glass   |
| <b>Immersion</b>                            | Minimum 2" in liquid, and 4" in gas for most ranges. Certain ranges require up to 4" in liquids & 5" in gas.   |
| <b>Mounting Connection</b>                  | 1/2" NPT (Standard), 1/4" NPT, 3/4" NPT, Plain Hex Bushing, or 1/2" BSPT   |
| <b>Temperature Sensing Area</b>             | Last 2" to 4" of the stem  |

## ADJUSTABLE ANGLE BIMETAL THERMOMETER



Visit [reotemp.com](http://reotemp.com)

- ✓ Check Stock
- ✓ Get Price
- ✓ Configure Part #
- ✓ Generate a Custom Engineering Drawing

**HOW TO ORDER:** Choose options to build a part number. For example: LL0251F23-SF

| LL   | 025  | 1   | F23   | -SF   |
|--|--|---|---|---|
| DIAL SIZE  | STEM LENGTH  | CONNECTION  | TEMPERATURE RANGE   | OPTIONS   |
| <p>LL = 3" Dial w/ Reset<br/>MM = 4" Dial w/ Reset<br/>JJ = 5" Dial w/ Reset</p> | <p>025 = 2.5"<br/>040 = 4"<br/>060 = 6"<br/>090 = 9"<br/>120 = 12"<br/>150 = 15"<br/>180 = 18"<br/>240 = 24"<br/>300 = 30"<br/>360 = 36"</p> <p>Note: Intermediate stem lengths available up to 80".</p> <p><i>Millimeter Stem Lengths</i><br/>M???? = Use a code beginning in M to specify a mm stem length ex: 100mm = M0100</p> | <p>1 = 1/2" NPT<br/>4 = 1/4" NPT<br/>5 = 3/4" NPT Adapter<br/>X = Plain Unthreaded Hex Bushing<br/>U = 1/2" NPT Union</p> | <p><i>Fahrenheit Ranges</i><br/>F23 = -40°F to 160°F<br/>F55 = 25°F to 125°F*<br/>F43 = 0°F to 200°F<br/>F47 = 0°F to 250°F<br/>F63 = 50°F to 300°F<br/>F67 = 50°F to 500°F<br/>F69 = 50°F to 550°F<br/>F81 = 150°F to 750°F<br/>F85 = 200°F to 1000°F</p> <p><i>Celsius Ranges</i><br/>C23 = -40°C to 70°C<br/>C55 = 0°C to 50°C*<br/>C43 = 0°C to 100°C<br/>C47 = -20°C to 120°C<br/>C59 = 0°C to 150°C<br/>C67 = 0°C to 250°C<br/>C69 = 0°C to 300°C<br/>C73 = 0°C to 400°C<br/>C85 = 100°C to 500°C</p> <p><i>Dual Scale Ranges</i><br/>D23 = -40°F to 160°F &amp; -40°C to 70°C<br/>D55 = 25°F to 125°F &amp; -5°C to 50°C*<br/>D43 = 0°F to 200°F &amp; -10°C to 90°C<br/>D47 = 0°F to 250°F &amp; -20°C to 120°C<br/>D63 = 50°F to 300°F &amp; 10°C to 150°C<br/>D67 = 50°F to 500°F &amp; 10°C to 260°C<br/>D69 = 50°F to 550°F &amp; 10°C to 290°C<br/>D81 = 150°F to 750°F &amp; 70°C to 400°C<br/>D85 = 200°F to 1000°F &amp; 100°C to 500°C</p> <p>*Not available in 2.5" stem.</p> <p><i>For Additional Ranges See Master Range Code Sheet on Page 221</i></p> | <p><i>General Options</i><br/>-3H = 316 SS Head and Bezel<br/>-PS = Pointed Stem<br/>-S3 = 3/8" diameter Stem<br/>-F5 = 5/16" diameter Stem (Not Available with 316SS Stem)<br/>-SF = Silicone Filled<br/>-SS = 316 Stainless Stem<br/>-WD = White Dial<br/>-HV = Hi-Vis™ Dial<br/>-NL = No Logo Dial<br/>-CB = Color Bands<br/>-PI = Color Pie<br/>-CL = Custom Logo Dial</p> <p><i>Window Options (Standard is Glass)</i><br/>-MM = Min-Max Pointer (Plastic Lens)<br/>-PC = Acrylic Window<br/>-PY = Polycarbonate Window<br/>-TG = Tempered Glass Window<br/>-SG = Laminated Safety Glass</p> <p><i>Calibration Cert. Options</i><br/>-R1 = One Point Calibration Cert (Reotemp Chooses Points)<br/>-R3 = Three Point Calibration Cert (Reotemp Chooses Points)<br/>-C1 = One Point Calibration Cert (Customer Chooses Points)<br/>-C3 = Three Point Calibration Cert (Customer Chooses Points)</p> <p><i>Tags and Accessories</i><br/>-TS = Tag, Stainless<br/>-TP = Tag, Paper<br/>-AS = Adapts Bimet to 1-1/4-18 industrial socket<br/>-HT = Heat Transfer Compound</p> <p><i>For Additional Options See Page 220</i><br/><i>For Thermowells See Pages 234-240</i></p> |

**Note:** Thermowells should be used whenever the stem or bulb would be exposed to pressure, corrosion, velocity, abrasion or shear forces. Thermowells also make it possible to remove the thermometer without losing pressure or the contents of the process.

## BIMETAL OPTION CODES

| Part #                       | Description   | Industrial<br>AA, RR,<br>CC, CN,<br>BB, SS,<br>XR, XX,<br>YY, YN,<br>VR, VV,<br>LL, MM, JJ | Small Dial<br>OEM<br>QQ, GG, HH | Digital<br>DT,<br>DTR,<br>BT | Dual Mode<br>Thermometer<br>DMT |
|------------------------------|---|--|---------------------------------|------------------------------|---------------------------------|
| <b>CASE FILL OPTIONS</b>     |   |  |                                 |                              |                                 |
| <b>-SF</b>                   | Silicone Filled Case  | ✓  | N/A                             | N/A                          | ✓                               |
| <b>LENS OPTIONS</b>          |   |  |                                 |                              |                                 |
| <b>-PC</b>                   | Acrylic Window  | ✓  | ✓                               | N/A                          | ✓                               |
| <b>-PY</b>                   | Polycarbonate Window  | ✓  | ✓                               | STD                          | ✓                               |
| <b>-TG</b>                   | Tempered Safety Glass Lens                                    | ✓  | N/A                             | N/A                          | ✓                               |
| <b>-SG</b>                   | Laminated Safety Glass Lens                                   | ✓  | N/A                             | N/A                          | ✓                               |
| <b>-GL</b>                   | Plain Glass   | STD  | STD                             | ✓                            | STD                             |
| <b>STEM OPTIONS</b>          |   |  |                                 |                              |                                 |
| <b>-PS</b>                   | Pointed Tip   | ✓  | ✓                               | ✓                            | N/A                             |
| <b>-SS</b>                   | 316 Stainless Steel Stem                                      | ✓  | ✓                               | ✓                            | ✓                               |
| <b>-F5</b>                   | 5/16" Diameter Stem (Not Available with 316SS Stem)           | ✓  | ✓                               | ✓                            | N/A                             |
| <b>-S3</b>                   | 3/8" Diameter Stem  | ✓  | ✓                               | ✓                            | ✓                               |
| <b>-TF</b>                   | Teflon Coating (Stem Only)                                    | ✓  | ✓                               | ✓                            | ✓                               |
| <b>DIAL OPTIONS</b>          |   |  |                                 |                              |                                 |
| <b>-CL</b>                   | Custom Logo Dial  | ✓  | ✓                               | ✓                            | ✓                               |
| <b>-HV</b>                   | Hi-Vis Dial   | ✓  | MQ                              | N/A                          | ✓                               |
| <b>-CB</b>                   | Color Band  | ✓  | MQ                              | N/A                          | ✓                               |
| <b>-PI</b>                   | Color Pie   | ✓  | MQ                              | N/A                          | ✓                               |
| <b>-WD</b>                   | White Dial (Standard Ranges Only)                             | ✓  | ✓                               | ✓                            | ✓                               |
| <b>-MM</b>                   | Min/Max Pointer   | ✓  | N/A                             | N/A                          | ✓                               |
| <b>NL</b>                    | No Logo   | ✓  | ✓                               | ✓                            | ✓                               |
| <b>TAG OPTION</b>            |   |  |                                 |                              |                                 |
| <b>-TS</b>                   | Stainless Steel Tag (1-10 Characters)                         | ✓  | ✓                               | ✓                            | ✓                               |
| <b>-TP</b>                   | Paper Tag   | ✓  | ✓                               | ✓                            | ✓                               |
| <b>CERTIFICATION OPTIONS</b> |   |  |                                 |                              |                                 |
| <b>-R1</b>                   | 1pt. Calibration Certification (Reotemp Chooses the Point)    | ✓  | ✓                               | ✓                            | ✓                               |
| <b>-R3</b>                   | 3 pt. Calibration Certification (Reotemp Chooses the Points)  | ✓  | ✓                               | ✓                            | ✓                               |
| <b>-C1</b>                   | 1 pt. Calibration Certification (Customer Chooses the Point)  | ✓  | ✓                               | ✓                            | ✓                               |
| <b>-C3</b>                   | 3 pt. Calibration Certification (Customer Chooses the Points) | ✓  | ✓                               | ✓                            | ✓                               |
| <b>-CS</b>                   | NIST Calibration Sticker (No Logged Points)                   | ✓  | ✓                               | ✓                            | ✓                               |
| <b>-CC</b>                   | Certificate of Conformance                                    | ✓  | ✓                               | ✓                            | ✓                               |
| <b>OTHER</b>                 |   |  |                                 |                              |                                 |
| <b>-3H</b>                   | 316 Stainless Steel Head & Bezel                              | ✓  | N/A                             | STD                          | ✓                               |
| <b>-HT</b>                   | Heat Transfer Compound  | ✓  | ✓                               | ✓                            | ✓                               |
| <b>-CH</b>                   | Spring Handle (T-27)  | ✓  | ✓                               | ✓                            | N/A                             |
| <b>-AS</b>                   | Allows Bimet to Fit 1-1/4-18 xxowell                          | ✓  | ✓                               | ✓                            | ✓                               |

|     |  |
|-----|--|
| ✓   | Indicates that the option is available with the model. |
| STD | Indicates standard options with no additional cost.    |

|     |  |
|-----|--|
| N/A | Indicates the option is not available with this model. |
| MQ  | Minimum order quantity applies.                        |

## BIMETAL RANGE CODES

| FAHRENHEIT RANGES |          |      |
|-------------------|----------|------|
| Code              | °F Range | Div. |
| F03               | -100/100 | 2    |
| F05               | -100/200 | 2    |
| F07               | -80/120  | 2    |
| F11               | -70/150  | 2    |
| F19               | -50/300  | 5    |
| F21 <sup>†</sup>  | -40/120  | 2    |
| F23               | -40/160  | 2    |
| F25               | -40/180  | 2    |
| F26               | -40/200  | 2    |
| F27 <sup>‡</sup>  | -40/70   | 1    |
| F31 <sup>†</sup>  | -20/120  | 2    |
| F33               | -20/425  | 5    |
| F35 <sup>‡</sup>  | 0/100    | 1    |
| F37 <sup>†</sup>  | 0/140    | 2    |
| F39 <sup>†</sup>  | 0/150    | 1    |
| F43               | 0/200    | 2    |
| F45               | 0/220    | 2    |
| F47               | 0/250    | 2    |
| F49               | 0/300    | 2    |
| F50               | 0/500    | 5    |
| F51               | 0/600    | 10   |
| F53               | 20/240   | 2    |
| F55 <sup>‡</sup>  | 25/125   | 1    |
| F57 <sup>‡</sup>  | 30/130   | 1    |
| F63               | 50/300   | 2    |
| F65               | 50/400   | 5    |
| F67               | 50/500   | 5    |
| F69               | 50/550   | 5    |
| F71               | 50/650   | 10   |
| F73               | 50/750   | 10   |
| F78               | 100/600  | 5    |
| F79               | 100/800  | 10   |
| F81               | 150/750  | 10   |
| F82               | 200/700  | 20   |
| F83               | 200/300  | 2    |
| F84               | 100/900  | 5    |
| F85               | 200/1000 | 10   |
| F89               | 250/600  | 5    |
| F91               | 300/400  | 2    |

| CELSIUS RANGES   |          |      |
|------------------|----------|------|
| Code             | °C Range | Div. |
| C01              | -80/220  | 2    |
| C03              | -70/70   | 2    |
| C06              | -70/30   | 1    |
| C07              | -50/50   | 1    |
| C08              | -60/120  | 2    |
| C09 <sup>‡</sup> | -50/0    | 1    |
| C15              | -50/100  | 2    |
| C17              | -50/200  | 2    |
| C19              | -40/160  | 2    |
| C20              | -60/300  | 5    |
| C23              | -40/70   | 1    |
| C24              | -40/350  | 5    |
| C27 <sup>‡</sup> | -30/30   | 1    |
| C31 <sup>†</sup> | -20/40   | 1    |
| C32              | -20/60   |      |
| C33              | -20/220  | 2    |
| C34              | -20/320  | 5    |
| C35 <sup>‡</sup> | 0/30     | .5   |
| C37 <sup>‡</sup> | 0/60     | 1    |
| C38 <sup>†</sup> | 0/80     |      |
| C43              | 0/100    | 1    |
| C47              | -20/120  | 2    |
| C53              | -10/110  | 1    |
| C55 <sup>‡</sup> | 0/50     | .5   |
| C56              | 0/120    | 1    |
| C59              | 0/150    | 1    |
| C60              | 50/150   |      |
| C61              | 0/160    | 2    |
| C63              | 10/150   | 2    |
| C65              | 0/200    | 2    |
| C67              | 0/250    | 2    |
| C69              | 0/300    | 2    |
| C71              | 0/300    | 5    |
| C73              | 0/400    | 5    |
| C74              | 0/450    | 5    |
| C75              | 0/500    | 5    |
| C79              | 50/450   | 5    |
| C81              | 50/400   | 5    |
| C85              | 100/500  | 5    |
| C87              | 100/550  | 5    |

| DUAL RANGES      |                    |
|------------------|--------------------|
| Code             | °F & °C Range      |
| D01              | -150/400 & 100/200 |
| D03              | -100/100 & -70/40  |
| D07              | -80/120 & -60/50   |
| D15              | -50/210 & -50/100  |
| D19              | -50/300 & -40/160  |
| D23              | -40/160 & -40/70   |
| D37 <sup>†</sup> | 0/140 & -15/60     |
| D39 <sup>†</sup> | 0/150 & -20/65     |
| D41 <sup>†</sup> | 0/160 & -15/70     |
| D43              | 0/200 & -10/90     |
| D45              | 0/220 & -10/100    |
| D47              | 0/250 & -20/120    |
| D49              | 0/300 & -10/150    |
| D53              | 20/240 & -10/115   |
| D55 <sup>‡</sup> | 25/125 & -5/50     |
| D63              | 50/300 & 10/150    |
| D65              | 50/400 & 10/200    |
| D67              | 50/500 & 10/260    |
| D69              | 50/550 & 10/290    |
| D77              | 100/450 & 40/230   |
| D79              | 100/800 & 40/400   |
| D81              | 150/750 & 70/400   |
| D85              | 200/1000 & 100/500 |
| D87              | 200/1000 & 100/550 |

‡ Minimum stem length is 4".

† For 2.5" stem, all bottom connect and all-angle models require adapter P/N AD22S.