Bimetal Thermometer
Model TI.33, All Stainless Steel Construction

Applications
- Suitable for fluid medium which does not corrode 304 stainless steel

Special features
- Industrial design
- Back connection without external reset
- All stainless steel construction

Standard version

Size
3” (76.2 mm)

Accuracy
± 1.0% full scale value (ASME B40.3)

Ranges
-100°F to 1000°F (and equivalent Celsius)

Working Range
Steady: full scale value
Short time: 110% of full scale value

Over Range
Temporary over or under range tolerance of 50% of scale up to 500°F. (260°C). For ranges above 500°F, maximum over range is 800°F; continuous. 1000°F intermittent.

Connection
Material: 304 stainless steel
enter back mount (CBM); 1/2" NPT Connection

Stem
Material: 304 stainless steel
Diameter: 1/4" (6.35 mm)
Length: 2½” to 24” (63.5 mm to 609.6 mm)

Measuring Element
Bi-metal helix

Dial
White aluminum, dished, with black markings

Thermometer TI.33

Case
Material: 304 stainless steel
Hermetically sealed
Ingress protection IP 65

Pointer
Black aluminum

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

Window Gasket
Neoprene
Silicone (-100°F and over 550°F)

Window
Flat instrument glass

Weight
7 oz. (Type TI.33)
Add 1 oz. for every 2” of stem length

Dampening
Inert gel to minimize pointer oscillation

Warranty
Limited one year warranty as stated in WIKA’s Terms & Conditions of Sale
Optional Extras
- Thermowells
- Special scales and dial markings
- Acrylic and safety glass windows
- Calibration certification traceable to NIST

### STANDARD RANGES

<table>
<thead>
<tr>
<th>Fahrenheit</th>
<th>Dual Scale F &amp; C</th>
<th>Celsius</th>
</tr>
</thead>
<tbody>
<tr>
<td>-100/150 F</td>
<td>-100/150 F &amp; -70/70 C</td>
<td>-50/50 C</td>
</tr>
<tr>
<td>-40/120 F</td>
<td>40/120 F &amp; -40/50 C</td>
<td>-20/120 C</td>
</tr>
<tr>
<td>0/140 F</td>
<td>0/140 F &amp; -20/60 C</td>
<td>0/50 C</td>
</tr>
<tr>
<td>0/200 F</td>
<td>0/200 F &amp; -15/90 C</td>
<td>0/100 C</td>
</tr>
<tr>
<td>0/250 F</td>
<td>0/250 F &amp; -20/120 C</td>
<td>0/150 C</td>
</tr>
<tr>
<td>20/240 F</td>
<td>20/240 F &amp; -5/115 C</td>
<td>0/200 C</td>
</tr>
<tr>
<td>25/125 F</td>
<td>25/125 F &amp; -5/50 C</td>
<td>0/250 C</td>
</tr>
<tr>
<td>50/300 F</td>
<td>50/300 F &amp; 10/150 C</td>
<td>0/300 C</td>
</tr>
<tr>
<td>50/400 F</td>
<td>50/400 F &amp; 10/200 C</td>
<td>0/450 C</td>
</tr>
<tr>
<td>50/550 F</td>
<td>50/550 F &amp; 10/260 C</td>
<td>100/550 C</td>
</tr>
<tr>
<td>150/750 F</td>
<td>150/750 F &amp; 65/400 C</td>
<td></td>
</tr>
<tr>
<td>200/1000 F</td>
<td>200/1000 F &amp; 100/540 C</td>
<td></td>
</tr>
</tbody>
</table>

*Not recommended for continuous service over 800°F (425°C)

### Dimensions

#### Standard versions

**Back Connected Type TI.33**

<table>
<thead>
<tr>
<th>WIKA Type</th>
<th>DIAL SIZE</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>S (Stem Length)</th>
</tr>
</thead>
<tbody>
<tr>
<td>33</td>
<td>3” (76.2 mm)</td>
<td>3-5/16” (84.1 mm)</td>
<td>3/4” (19.1 mm)</td>
<td>9/32” (7.1 mm)</td>
<td>As Specified</td>
</tr>
</tbody>
</table>

Note: Thermowells for temperature instruments are recommended for all process systems where pressure, velocity, or viscous, abrasive and corrosive materials are present individually or in combination. A properly selected thermowell protects the temperature instrument from possible damage resulting from these process variables. Furthermore, a thermowell permits removal of the temperature instrument for replacement, repair or testing without affecting the process media or the system.

**Ordering information**

State computer part number (if available) / type number / size / range / connection size and locations / options required. WIKA reserves the right to make changes without prior notice.