Bimetal Thermometer - Process Grade - All Stainless Steel Construction
Type TI.30, 3” Dial Size - Back Connected

Applications

- General process instrumentation in the chemical, petrochemical, oil and gas, energy and water/wastewater industries
- Temperature measurement in harsh and aggressive environments
- With liquid dampening suitable for applications with high vibrations

Product features

- Process grade design
- All stainless steel case construction
- Back connected with external reset
- Hermetically sealed per ASME B40.3
- Accurate to 1% of full scale value
- Available with silicone case filling for vibration

Specifications

Sizes
3” (76.2 mm) - Type TI.30

Accuracy
+ 1.0% full scale value per ASME B40.3 Grade A

Ranges
From -100°F (-70°C) to +1000°F (+540°C)
From -50°C to +550°C (as single scale)
Reference table on page 2

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

Over/Under Range Protection
≤ +500°F (+260°C): Temporary up to 50% of full scale
> +500°F (+260°C): Continuous to 800°F (+427°C)
Intermittent up to 1000°F (+538°C)

Connection
Material: 304 stainless steel
Center back mount (CBM), 1/2” NPT

Measuring Element
Bi-metal helix

Pointer
Black aluminum

Stem
Material: 304 stainless steel
Diameter: ¼” (6.35 mm)
Length: 2½” to 72” (63.5 mm to 1,828.8 mm)

Case
Material: 304 stainless steel
Hermetically sealed per ASME B40.3 standard
Weather protection NEMA 4X (IP 66)
External reset slotted hex head on back of case

Dial
White aluminum, dished, with black markings

Dampening
Inert gel to minimize pointer oscillation

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

Window Gasket
Neoprene
Silicone for ranges -100°F (-70°C) and ranges > +550°F (+260°C)

Window
Flat instrument glass

Weight
7 oz. (200 g) - 3” dial (76.2 mm);
Add 1 oz. (28 g) for every 2” (50 mm) of stem length
Optional Extras

- Thermowells
- Silicone fill
- Dampened Movement
- Special scales and dial markings
- Acrylic and safety glass windows
- Calibration certification traceable to NIST
- Min/max pointer
- DIN standards

### Standard Versions

<table>
<thead>
<tr>
<th>WIKA Type</th>
<th>DIAL SIZE</th>
<th>A</th>
<th>B</th>
<th>S (Stem Length)</th>
</tr>
</thead>
<tbody>
<tr>
<td>30</td>
<td>3” (76.2 mm)</td>
<td>3-1/4” (82.6 mm)</td>
<td>15/16” (23.8 mm)</td>
<td>As Specified</td>
</tr>
</tbody>
</table>

**STANDARD RANGES**

<table>
<thead>
<tr>
<th>Fahrenheit</th>
<th>Dual Scale F &amp; C</th>
<th>Celsius</th>
<th>Single Scale</th>
</tr>
</thead>
<tbody>
<tr>
<td>-100/150 F</td>
<td>-100/150 F &amp; -70/70 C</td>
<td>-50/50 C</td>
<td></td>
</tr>
<tr>
<td>-40/120 F</td>
<td>40/120 F &amp; -40/50 C</td>
<td>-20/120 C</td>
<td></td>
</tr>
<tr>
<td>0/140 F</td>
<td>0/140 F &amp; -20/60 C</td>
<td>0/50 C1</td>
<td></td>
</tr>
<tr>
<td>0/200 F</td>
<td>0/200 F &amp; -15/90 C</td>
<td>0/100 C</td>
<td></td>
</tr>
<tr>
<td>0/250 F</td>
<td>0/250 F &amp; -20/120 C</td>
<td>0/150 C</td>
<td></td>
</tr>
<tr>
<td>20/240 F</td>
<td>20/240 F &amp; -5/115 C</td>
<td>0/200 C</td>
<td></td>
</tr>
<tr>
<td>25/125 F</td>
<td>25/125 F &amp; -5/50 C1</td>
<td>0/250 C</td>
<td></td>
</tr>
<tr>
<td>50/300 F</td>
<td>50/300 F &amp; 10/150 C</td>
<td>0/300 C</td>
<td></td>
</tr>
<tr>
<td>50/400 F</td>
<td>50/400 F &amp; 10/200 C</td>
<td>0/450 C1</td>
<td></td>
</tr>
<tr>
<td>50/550 F</td>
<td>50/500 F &amp; 10/260 C</td>
<td>100/550 C1</td>
<td></td>
</tr>
<tr>
<td>150/750 F</td>
<td>150/750 F &amp; 65/400 C</td>
<td></td>
<td></td>
</tr>
<tr>
<td>200/1000 F</td>
<td>200/1000 F &amp; 100/540 C1</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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

**Dimensions**

**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 effecting 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.