

# Bimetal Thermometer, Industrial Grade - All Stainless Steel Construction Type TI.34 - 3" Dial Size, Bottom Connected

Datasheet TI.34

## Applications

- A wide range of applications including machine building, vessels, micro-brewing, boilers and water systems/piping
- Heating and air-conditioning technology (HVAC)
- Temperature measurement in harsh and aggressive environments

## Product features

- Robust industrial design
- Lower (bottom) connection without external reset
- NEMA 4X (IP 66) weather protection

## Specifications

### Size

3" (76.2 mm)

### Accuracy

± 1.0% full scale value (ASME B40.3)

### Ranges

From -100°F (70°C) to 1000°F (540°C)

From -50°C to 550°C (as single scale)

See 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)  
Intermittant up to 1000°F (+538°C)

### Connection

Material: 304 stainless steel

Lower mount (LM), 1/2" NPT

### Stem

Material: 304 stainless steel

Diameter: 1/4" (6.35 mm)

Length: 2 1/2" to 24" (63.5 mm to 609.6 mm)

### Measuring Element

Bi-metal helix

### Dial

White aluminum, dished, with black markings



Thermometer TI.34

### Case

Material: 304 stainless steel

Hermetically sealed

Weather protection NEMA 4X (IP 66)

### Pointer

Black aluminum

### 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

11 oz. (311 g) - Type TI.34

Add 1 oz. (28 g) for every 2" (50 mm) 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

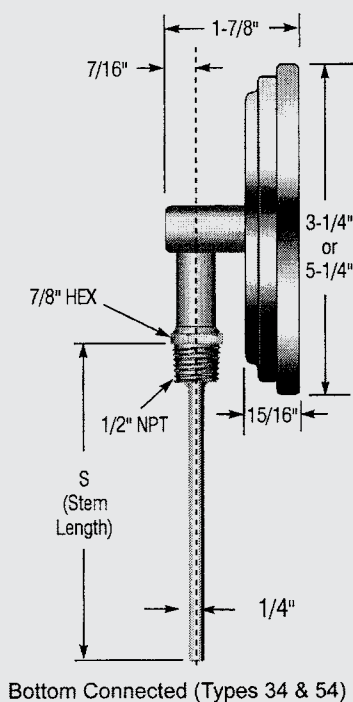
| STANDARD RANGES         |                                      |                        |
|-------------------------|--------------------------------------|------------------------|
| Fahrenheit Single Scale | Dual Scale F & C<br>F Outer, C Inner | Celsius Single Scale   |
| -100/150 F              | -100/150 F & -70/70 C                | -50/50 C               |
| -40/120 F               | 40/120 F & -40/50 C                  | -20/120 C              |
| 0/140 F                 | 0/140 F & -20/60 C                   | 0/50 C <sup>1</sup>    |
| 0/200 F                 | 0/200 F & -15/90 C                   | 0/100 C                |
| 0/250 F                 | 0/250 F & -20/120 C                  | 0/150 C                |
| 20/240 F                | 20/240 F & -5/115 C                  | 0/200 C                |
| 25/125 F <sup>1</sup>   | 25/125 F & -5/50 C <sup>1</sup>      | 0/250 C                |
| 50/300 F                | 50/300 F & 10/150 C                  | 0/300 C                |
| 50/400 F                | 50/400 F & 10/200 C                  | 0/450 C <sup>2</sup>   |
| 50/550 F                | 50/500 F & 10/260 C                  | 100/550 C <sup>2</sup> |
| 150/750 F               | 150/750 F & 65/400 C                 |                        |
| 200/1000 F <sup>2</sup> | 200/1000 F & 100/540 C <sup>2</sup>  |                        |

<sup>1</sup> Minimum length 4" for Type 34

<sup>2</sup> Not recommended for continuous service over 800°F (425°C)

## Dimensions

### Standard versions



| Stem Length    |
|----------------|
| 2½" (63.5 mm)  |
| 4" (101.6 mm)  |
| 6" (152.4 mm)  |
| 9" (228.6 mm)  |
| 12" (304.8 mm) |
| 15" (381.0 mm) |
| 18" (457.2 mm) |
| 24" (609.6 mm) |

| WIKA Type | DIAL SIZE    | A                | B                | S (Stem Length) |
|-----------|--------------|------------------|------------------|-----------------|
| 34        | 3" (76.2 mm) | 3-1/4" (82.6 mm) | 1-7/8" (47.6 mm) | As Specified    |

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.



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