



Bimetal Thermometers

Stainless Steel Case and Wetted Parts

Lower (Bottom) Connection With External Reset

Type TI.31

Thermometers

Application

Industrial type design for fluid medium which does not corrode 304 stainless steel.

Size

3" (76.2 mm) Type TI.31

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.



Standard Features

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 72" (63.5 mm to 1,828.8 mm)

Measuring Element

Bi-metal helix

Case

Material: 304 stainless steel
Hermetically sealed per ASME B40.3 standard
External reset slotted hex head on back of case

Dial

White aluminum, dished, with black markings

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

11 oz. (3" dial)
Add 1 oz for every 2" of stem length

Dampening

Helix coated with viscous silicone to minimize pointer oscillation and improve sensitivity (ranges below 400 °F)

STANDARD RANGES

| Fahrenheit | Dual Scale F & C | Celsius |
|-------------------------|-------------------------------------|------------------------|
| Single Scale | F Outer, C Inner | 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 ¹ |
| 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 ¹ | 25/125 F & -5/50 C ¹ | 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 ² |
| 50/550 F | 50/500 F & 10/260 C | 100/550 C ² |
| 150/750 F | 150/750 F & 65/400 C | |
| 200/1000 F ² | 200/1000 F & 100/540 C ² | |

¹Minimum stem length 4" for Types 31, 34, 51, 52, 54

²Not recommended for continuous service over 800 °F (425 °C)

Order Options (min. order may apply)

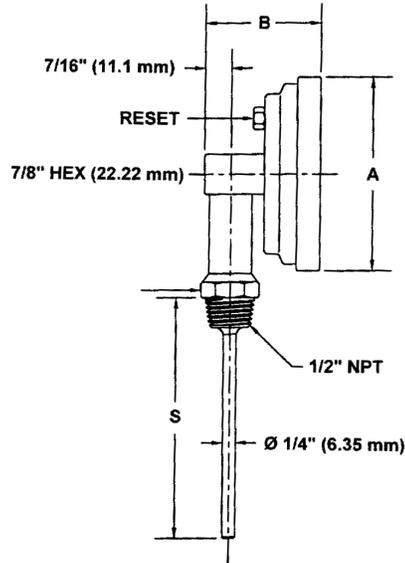
Thermowells
Silicone fill
Special scales and dial markings
Acrylic and safety glass windows
Calibration certification traceable to NIST

Warranty

7- Year Warranty

ATM TI.31
(ATM 53.03)

Dimensions:



| WIKA TYPE | DIAL SIZE | A | B | S (Stem Length) |
|-----------|--------------|----------------|------------------|-----------------|
| 31 | 3" (76.2 mm) | 3/4" (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.

| STEM LENGTH |
|------------------|
| 2 1/2" (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) |

THE MEASURE OF
Total Performance™

Ordering Information:

State computer part number (if available) / type number / size / range / connection size and location / options required.

Specifications given in this price list represent the state of engineering at the time of printing. Modifications may take place and the specified materials may change without prior notice



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