Bimetal Thermometer, Process Grade - All Stainless Steel Construction Type TI.50, 5" 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 agressive environments
- With liquid dampening suitable for applications with high vibrations

Product features

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

Thermometer TI.50

Standard version

Sizes
5" (127 mm) - Type TI.50

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)
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
Center back mount (CBM), 1/2" NPT

Stem
Material: 304 stainless steel
Diameter: ¼" (6.35 mm)
Length: 2 ½" 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
Weather protection NEMA 4X (IP 66)
External reset slotted hex head on back of case

Dial
White aluminum, dished, with black markings

Pointer
Black aluminum

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
16 oz. (453 g) - 5" dial
Add 1 oz. (28 g) for every 2" (50 mm) of stem length

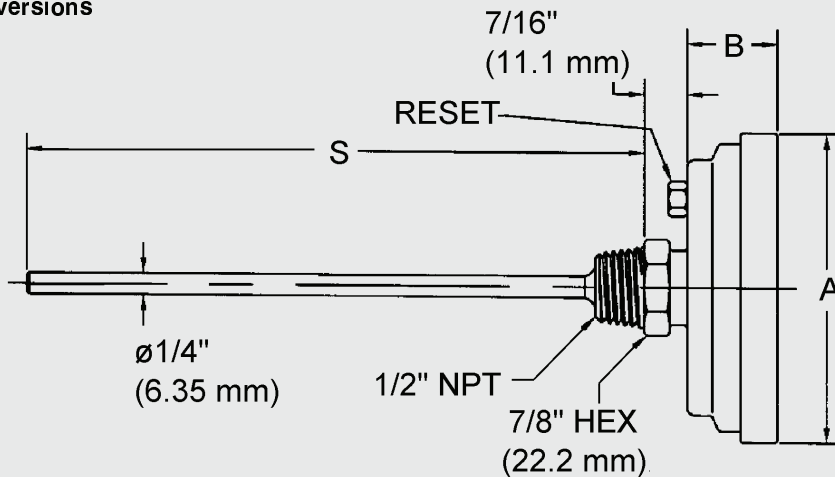### Warranty
7- Year Warranty

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 RANGES		
Fahrenheit Single Scale	Dual Scale F & C 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[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	25/125 F & -5/50 C	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[1]
50/550 F	50/500 F & 10/260 C	100/550 C[1]
150/750 F	150/750 F & 65/400 C	
200/1000 F[1]	200/1000 F & 100/540 C[1]	

[1] Not recommended for continous 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)
50	5" (127 mm)	5-1/4" (133.4 mm)	15/16" (23.8 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.