

# Bimetal Thermometer - Industrial Grade - All Stainless Steel Construction Type TI.20, 2" Dial Size - Back Connected

Datasheet TI.20

## 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

- Back connection with external reset
- Robust industrial design
- All stainless steel case construction
- NSF approval available



Thermometer TI.20

## Specifications

### Size

2" (50.8 mm) - Type TI.20

### Accuracy

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

### Min./Max. 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)

Intermittant up to 1000°F (+538°C)

### Connection

Material: 304 stainless steel

Center back mount (CBM)

1/4" 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

### Case

Material: 304 stainless steel; hermetically sealed per ASME B40.3 standard

### Dial

White aluminum, dished, with black markings

### Pointer

Black aluminum

### Standard Scales

Single: Fahrenheit or Celsius

Dual: Fahrenheit (outer) and Celsius (inner)

### Window

Flat instrument glass

### Weight

5 oz. (142 g), 2" (50 mm) dial;

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

### Dampening

Inert gel to minimize pointer oscillation

### Order Options (min. order may apply)

Special scales and dial markings; Acrylic windows

Calibration certification traceable to NIST

### Warranty

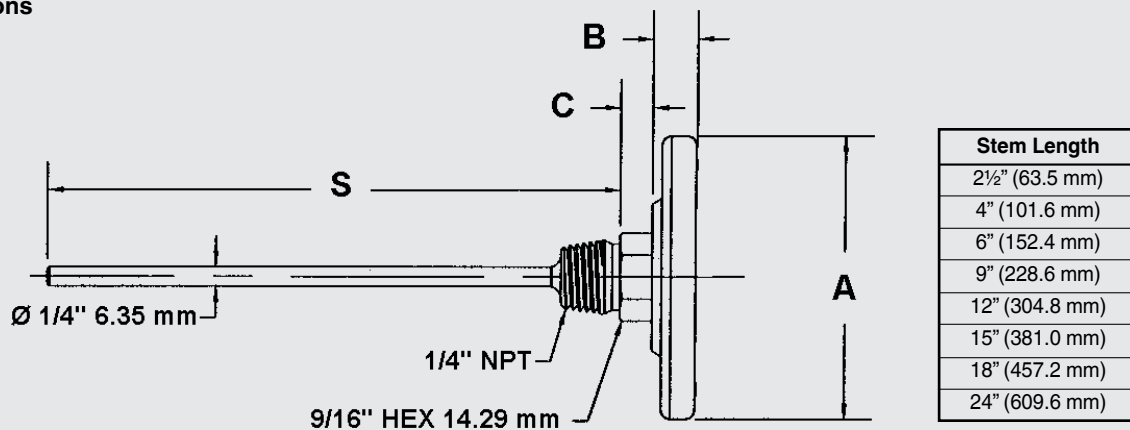
Limited one year warranty as stated in WIKA's Terms & Conditions of Sale

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
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 <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>1</sup>
50/550 F	50/500 F & 10/260 C	100/550 C <sup>1</sup>
150/750 F	150/750 F & 65/400 C	
200/1000 F <sup>1</sup>	200/1000 F & 100/540 C <sup>1</sup>	

<sup>1</sup> Not recommended for continuous service over 800°F (425°C)

## Dimensions

### Standard versions



WIKA TYPE	DIAL SIZE	A	B	C	S (STEM LENGTH)
20	2" (50.8 mm)	2-1/16" (52.4 mm)	7/16" (11.1 mm)	1/4" (6.4 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.



**WIKA Instrument Corporation**  
 1000 Wiegand Boulevard  
 Lawrenceville, GA 30043  
 1-888-WIKA-USA /770-513-8200 (in GA)  
 Fax 770-338-5118  
 info@wika.com www.wika.com