

# Bimetal Thermometer

## Model TI.20, All Stainless Steel Construction

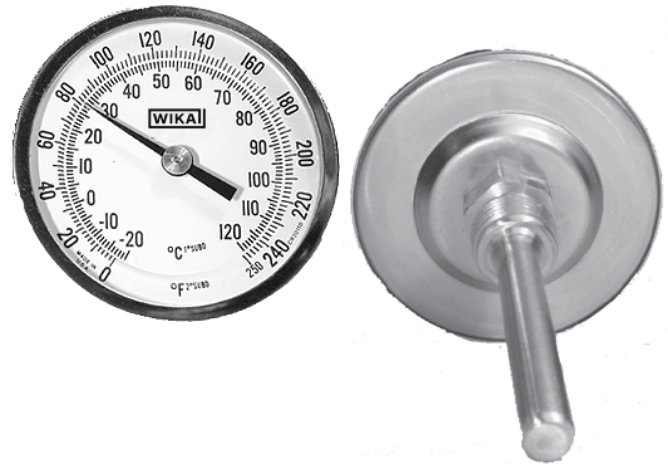
Datasheet TI.20

### Application

- Suitable fluid medium which does not corrode 304 stainless steel

### Special features

- Back connection without external reset
- Industrial design
- All Stainless steel construction



### Standard version

#### Size

2" (50.8 mm) - Type TI.20

#### Accuracy

± 1.0% full scale value (ASME B40.3)

#### Min. / Max. Ranges

-100 °F to 1000 °F (and equivalent Celsius)

#### Working Range

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

#### Under / Over Range Protection

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.

#### Connection

Material: 304 stainless steel  
Center back mount (CBM)  
1" NPT

#### Stem

Material: 304 stainless steel  
Diameter: 1" (6.35 mm)  
Length: 2 1/2" to 24" (63.5 mm to 609.6 mm)

#### Measuring Element

Bi-metal helix

### Thermometer TI.20

#### 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

2" - 5 oz.; Add 1 oz. for every 2" 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

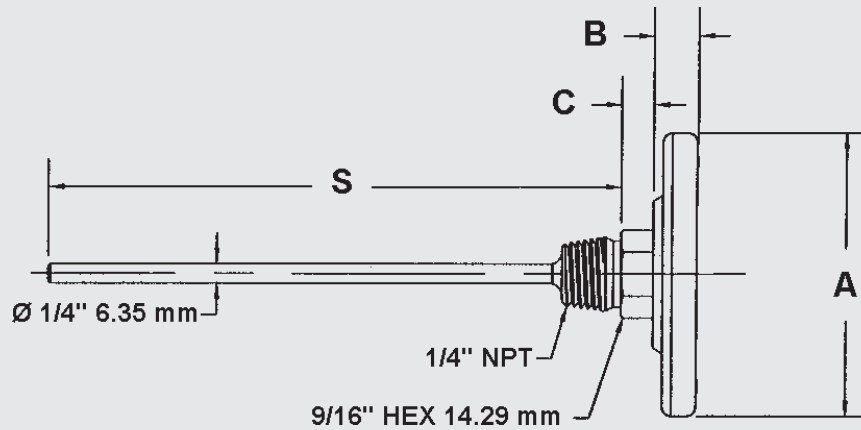
Limited one year warranty as stated in WIKA's Terms & Conditions of Sale.

STANDARD RANGES		
Fahrenheit	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
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

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)

**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.