# Bimetal Thermometer, Industrial Grade - All Stainless Steel Construction Type TI.53 - 5" Dial Size, Back Connected

Datasheet TI.53

### **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 agressive environments

### **Product features**

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

## Specifications

#### Size

5" (127mm)

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 valueShort 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) - Type TI.53 1/2" NPT Connection

#### Stem

Material: 304 stainless steel Diameter: 1/4" (6.35 mm) Length: 21/2" to 24" (63.5 mm to 609.6 mm)

### **Measuring Element**

Bi-metal helix

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#### Thermometer TI.53

#### Dial

White aluminum, dished, with black markings

#### 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

16 oz. (454 g), not including the stem 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

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## **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 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	25/125 F & -5/50 C1	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 C1				
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 continous service over 800°F (425°C)

### Standard versions Standard versions 5/16" 5/16" 5/16" 5/16" 5/16" 5/16" 5/16" 5/16" 5/16" 5/16" 5/16" 5/16" 5/16" 5/16" 5/16" 5/16" 1/2" NPT Length) 1/4" Back Connected Type TI.53

WIKA Type	DIAL SIZE	А	В	С	S (Stem Length)
53	5" (127 mm)	5-1/4" (8133.4 mm)	15/16" (23.8 mm)	5/16" (7.9 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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