

## Fluke 50 Series II Thermometers

**Laboratory accuracy. Wherever you go.**



*Fluke 51 Single Input Digital Thermometer*



*Fluke 52 Dual Input Digital Thermometer*



*Fluke 53 Single Input Digital Thermometer with data logging*



*Fluke 54 Dual Input Digital Thermometer with data logging*

The new Fluke 50 Series II contact thermometers offer fast response and laboratory accuracy (0.05% + 0.3°C) in a rugged, handheld test tool.

### **Fluke 51 Series II and 52 Series II product features:**

- Large backlit dual display shows any combination of T1, T2 (52 only), T1-T2 (52 only), plus MIN, MAX, or AVG
- Relative time clock on MIN, MAX, and AVG provides a time reference for major events
- Electronic Offset function allows compensation of thermocouple errors to maximize overall accuracy
- Measures J, K, T, and E-types of thermocouples
- Readout in °C, °F, or Kelvin (K)
- Splash and dust resistant case protected by impact absorbing holster
- User-friendly front panel is easy to set up and operate
- Sleep mode increases battery life; typical 1000-hour battery life
- Battery door allows easy battery replacement without breaking the calibration seal
- Optional ToolPak accessory allows the thermometer to hang from any metal object (with the rare earth magnet) or secure around a pipe (with hook-and-loop straps) for hands-free operation.
- 3 year warranty

### **The Fluke 53 Series II and 54 Series II include all the features listed above plus:**

- Data Logging up to 500 points of data with user adjustable recording interval
- Additional thermocouple types R, S, and N (for a total of 7 different types)
- Real time clock captures the exact time of day when events occur
- Recall function allows logged data to be easily reviewed on the meter display
- IR communication port allows data to be exported to optional FlukeView® Temperature PC software for further analysis and graphing



## Selection table

	51 Series II	52 Series II	53 Series II	54 Series II
Thermocouple Types	J, K, T, E	J, K, T, E	J, K, T, E, N, R, S	J, K, T, E, N, R, S
Number of Inputs	Single	Dual	Single	Dual
Time Stamp	Relative Time	Relative Time	Time of Day	Time of Day
Rugged Design with Holster	•	•	•	•
Splash Proof / Dust Resistant	•	•	•	•
Dual Display w/ Backlight	•	•	•	•
MIN / MAX / AVG Recording	•	•	•	•
(T1-T2) True Differential		•		•
Data Logging Up to 500 Points			•	•
IR Data Port for Interface to PC			•	•
Compatible w/ Optional FlukeView Software			•	•

## Specifications

### Temperature

#### Measurement accuracy:

Above -100 °C (-148 °F)	
J, K, T, E, and N-type**	$\pm[0.05\% + 0.3^{\circ}\text{C} (0.5^{\circ}\text{F})]$
R** and S-type**	$\pm[0.05\% + 0.4^{\circ}\text{C} (0.7^{\circ}\text{F})]$
Below -100 °C (-148 °F):	
J, K, E, and N-types	$\pm[0.20\% + 0.3^{\circ}\text{C} (0.5^{\circ}\text{F})]$
T-type	$\pm[0.50\% + 0.3^{\circ}\text{C} (0.5^{\circ}\text{F})]$

#### Display resolution:

0.1°C / °F / K < 1000°  
1°C / °F / K ≥ 1000°

#### Measurement range:

J-type:	-210°C to 1200°C (-346°F to 2192°F)
K-type:	-200°C to 1372°C (-328°F to 2501°F)
T-type:	-250°C to 400°C (-418°F to 752°F)
E-type:	-150°C to 1000°C (-238°F to 1832°F)
N-type**:	-200°C to 1300°C (-328°F to 2372°F)
R** and S-type**:	0°C to 1767°C (32°F to 3212°F)

#### Temperature scale: ITS-90

#### Applicable standards: NIST-175

\*\* Only the Fluke Models 53 and 54 Series II thermometers are capable of measuring N, R, and S-type thermocouples.

### Environmental

**Operating temperature:** -10°C to 50°C (14°F to 122°F)

**Storage temperature:** -40°C to 60°C (-40°F to 140°F)

**Humidity:** 0% to 90%; 0°C to 35°C (32°F to 95°F)  
0% to 70%; 0°C to 50°C (32°F to 122°F)

### General

**Unit weight:** 400g (14 oz)

**Dimensions:** 17.3 cm L x 8.6 cm W x 3.8 cm D  
(6.8 in L x 3.4 in W x 1.5 in D)

**Battery:** 3 AA batteries; typical 1000-hour life

**Certification:** CE, CSA, TÜV (pending)

**Safety:** CSA C22.2 No. 1010.1 1992; EN 61010 Amendments 1,2



Optional ToolPak accessory allows the thermometer to hang from any metal object (with the rare earth magnet) or secure around a pipe (with hook-and-loop straps) for hands-free operation.

#### Included Accessories

- Impact absorbing holster
- Two bead probe thermocouples (54+52)
- One beaded probe thermocouple (51+53)

**Fluke.** Keeping your world up and running.