

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.