

TECHNICAL DATA

Fluke 51 II Handheld Digital Probe Thermometer



Key features

- Single Input digital thermometer for lab, QA, process calibration, food safety and HVAC
- Measures J, K, T, and E-type thermocouples
- Presents results in °C, °F, or Kelvin (K) on a large backlit display
- Includes a relative time clock on MIN, MAX, and AVG to provide a time reference for major events

Product overview: Fluke 51 II Handheld Digital Probe Thermometer

The Fluke 51 II single input digital thermometer delivers fast response with laboratory accuracy ($0.05\% + 0.3^{\circ}\text{C}$). You can use the 51 II to measure contact temperature on motors, insulation, breakers, pipes, corroded connections, liquids, and wires with industrial standard J, K, T, or E-type thermocouple temperature sensors. The user friendly-front panel and large, backlit display make it easy to view results. And the sleep mode feature preserves battery life to give you a typical thousand hours of operation.

Other useful features:

- Easy-to-access battery door that allows replacing the battery without breaking the calibration seal
- Comes with splash- and dust-resistant case protected by an impact-absorbing holster and a three-year warranty
- Powered by three, standard AA batteries -30-

- Includes an electronic offset function that compensates for thermocouple errors to maximize overall accuracy
- Handles temperatures up to 900°C (1600°F)
- Provides a user-friendly front panel that is easy to set up and operate
- Offers sleep mode to increase battery life; 1000-hour battery life typical
- Offers optional ToolPak accessory to hang the thermometer from any metal object (with the rare earth magnet) or secure around a pipe (with hook-and-loop straps) for hands-free operation

Specifications: Fluke 51 II Handheld Digital Probe Thermometer

Specifications		
Temperature accuracy	Above -100°C	J, K, T, E, and N-type: ±[0.05% + 0.3°C] ¹
		R and S-type: ±[0.05% + 0.4°C] ¹
	Below -100°C	J, K, E, and N-types: ±[0.20% + 0.3°C] ¹
		T-type: ±[0.50% + 0.3°C]
Temperature	J-type	-210°C to 1200°C
	K-type	-200°C to 1372°C
	T-type	-250°C to 400°C
	E-type	-150°C to 1000°C
	N-type	-200°C to 1300°C ¹
	R and S-type	0°C to 1767°C ¹
Temperature scale	ITS-90	
Applicable standards	NIST-175	
Display resolution	0.1°C, 0.1 K < 1000	
	1°C, 1 K ≥ 1000	
1. Only the Fluke Models 53 II B and 54 II B thermometers are capable of measuring N, R, and S-type thermocouples.		
Environmental Specifications		
Operating temperature	-10°C to 50°C	
Storage temperature	-40°C to 60°C	
Humidity (without condensation)	0% to 90%; 0°C to 35°C	
	0% to 70%; 0°C to 50°C	
Safety Specifications		
Overvoltage category	CSA C22.2 No. 1010.1 1992; EN 61010 Amendments 1,2	
Agency approvals	CE, CSA, TÜV (pending)	
Mechanical and General Specifications		
Size (L x W x D)	173 x 86 x 38 mm	
Weight	400 g	
Batteries	3 AA batteries; typical 1000-hour life	

Ordering information



Fluke 51 II

Fluke 51 II Single Input Digital Thermometer

Includes:

- Impact absorbing holster
- One 80PK-1 bead probe thermocouple

Fluke 51 II CAL

Fluke 51 II Handheld Digital Probe Thermometer, with a traceable certificate of calibration with data from Fluke

Includes:

- Impact absorbing holster
- One 80PK-1 bead probe thermocouple
- A traceable certificate of calibration with data from Fluke

R-FLUKE-51-2 60HZ

Fluke 51 II Handheld Digital Probe Thermometer, fully reconditioned to original factory specifications. Includes Fluke's 3 year product warranty.

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

Fluke (UK) Ltd.
52 Hurricane Way
Norwich, Norfolk
NR6 6JB
United Kingdom
Tel.: +44 (0)20 7942 0708
E-mail: cs.uk@fluke.com
www.fluke.com/en-gb

©2025 Fluke Corporation. All rights reserved.
Data subject to alteration without notice.
12/2025

**Modification of this document is not permitted
without written permission from Fluke
Corporation.**