

TECHNICAL DATA

54 II B Data Logging Thermometer with Dual Input



Key features

- Large backlit dual display shows any combination of T1, T2 (52 and 54 only), T1-T2 (52 and 54 only), plus MIN, MAX, or AVG
- Recall function allows logged data to be easily reviewed on the meter display
- Infrared USB communication port allows data to be exported to optional FlukeView Forms® Temperature PC software for further analysis and graphing
- Data Logging up to 500 points of data with user adjustable recording interval
- 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, E, R, S, and N-type 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

Product overview: 54 II B Data Logging Thermometer with Dual Input

Laboratory accuracy. Wherever you go

Fluke 54 II B dual input digital thermometer can log up to 500 points of data to internal memory. Fast response and laboratory accuracy ($0.05\% + 0.3\text{ }^{\circ}\text{C}$). Take contact temperature for checking motors, insulation, breakers, pipes, corroded connections, liquids, and wires with industrial standard J, K, T, E, N, R, and S type thermocouple (temperature sensors).

Specifications: 54 II B Data Logging Thermometer with Dual Input

General 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 54 II B Data Logging Thermometer with Dual Input

Fluke 54 II B dual input digital thermometer can log up to 500 points of data to internal memory. Fast response and laboratory accuracy ($0.05\% + 0.3\text{ }^{\circ}\text{C}$).

Part#: 3821070

UPC#: 095969565110

Fluke 54 II

Fluke 54 II Dual Input Digital Thermometer

Part#: 674697

UPC#: 095969068956

Includes:

- Impact absorbing holster
- Two 80PK-1 bead probe thermocouples



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

Fluke Corporation
PO Box 9090, Everett, WA 98206 U.S.A.

For more information call:
In the U.S.A. (800) 443-5853
In Canada (800) 36-FLUKE
From other countries +1 (425) 446-5500
www.fluke.com

©2026 Fluke Corporation.
Specifications subject to change without notice.
06/2026

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