

TECHNICAL DATA

Fluke 52 II Dual Probe Digital Thermometer



Key features

- Dual-input digital thermometer for lab, QA, process calibration, food safety and HVAC
- Shows any combination of T1, T2, T1-T2, plus MIN, MAX, or AVG on the large backlit dual display
- Features fast response and laboratory accuracy (0.05% + 0.3°C)
- Includes a relative time clock on MIN, MAX, and AVG to provide a time reference for major events

Product overview: Fluke 52 II Dual Probe Digital Thermometer

The Fluke 52 II dual-input digital thermometer delivers fast response with laboratory accuracy (0.05% + 0.3°C). You can use the 52 II to measure two contact temperature inputs simultaneously 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 from both inputs in multiple ways. 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-
- Features an electronic offset function that compensates for thermocouple errors to maximize overall accuracy
- Measures J, K, T, and E-type thermocouples
- Handles temperatures up to 900°C (1600°F)
- Presents results in °C, °F, or Kelvin (K)
- 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 52 II Dual Probe Digital Thermometer

| Specifications | | |
|----------------------|---------------------|---|
| Temperature accuracy | Above -100°C | J, K, T, E, and N-type: $\pm[0.05\% + 0.3^{\circ}\text{C}]^1$ |
| | | R and S-type: $\pm[0.05\% + 0.4^{\circ}\text{C}]^1$ |
| | Below -100°C | J, K, E, and N-types: $\pm[0.20\% + 0.3^{\circ}\text{C}]^1$ |
| | | T-type: $\pm[0.50\% + 0.3^{\circ}\text{C}]$ |
| 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 |
| Baeries | 3 AA baeries; typical 1000-hour life |

Ordering information



Fluke 52 II

Fluke 52 II Dual Input Digital Thermometer

Includes:

- Impact absorbing holster
- Two 80PK-1 beaded 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

©2025 Fluke Corporation.

Specifications subject to change without notice.
04/2025

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