

## 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,<br>N, R, S | J, K, T, E,<br>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<br>Up to 500 Points             |               |               | •                      | •                      |
| IR Data Port for Interface<br>to PC          |               |               | •                      | •                      |
| Compatible w/ Optional<br>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

|                               |                                                                                 |
|-------------------------------|---------------------------------------------------------------------------------|
| <b>Operating temperature:</b> | -10°C to 50°C (14°F to 122°F)                                                   |
| <b>Storage temperature:</b>   | -40°C to 60°C (-40°F to 140°F)                                                  |
| <b>Humidity:</b>              | 0% to 90%; 0°C to 35°C (32°F to 95°F)<br>0% to 70%; 0°C to 50°C (32°F to 122°F) |

### General

|                       |                                                                     |
|-----------------------|---------------------------------------------------------------------|
| <b>Unit weight:</b>   | 400g (14 oz)                                                        |
| <b>Dimensions:</b>    | 17.3 cm L x 8.6 cm W x 3.8 cm D<br>(6.8 in L x 3.4 in W x 1.5 in D) |
| <b>Battery:</b>       | 3 AA batteries; typical 1000-hour life                              |
| <b>Certification:</b> | CE, CSA, TÜV (pending)                                              |
| <b>Safety:</b>        | 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.