

Maintenance

Replacing the Batteries

Refer to the safety information in Table 1 before replacing the batteries.

1. Turn off the thermometer if necessary.
2. Loosen the screw and remove the battery door.
3. Replace the three AA batteries.
4. Replace the battery door and tighten the screw.

Cleaning the Case and Holster

Use soap and water or a mild commercial cleaner.

Wipe with a damp sponge or soft rag.

Calibration

To ensure that the thermometer performs to its accuracy specifications, Fluke recommends that you calibrate the thermometer annually, starting one year after purchase.




To calibrate the thermometer, contact Fluke for the Service Center nearest you or follow the calibration procedure in the service manual listed in "Replacement Parts and Accessories."

Specifications

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	Non condensing <10 °C (<50 °F) 95% RH: 10 °C to 30 °C (50 °F to 86 °F) 75% RH: 30 °C to 40 °C (86 °F to 104 °F) 45% RH: 40 °C to 50 °C (104 °F to 122 °F)

General

Weight	280 g (10 oz)
Dimensions (without holster)	2.8 cm × 7.8 cm × 16.2 cm (1.1 in × 3 in × 6.4 in)
Battery	3 AA batteries
Certification	CE,   
Safety	CSA C22.2 No. 1010.1 1992 EN 61010 Amendments 1, 2
CAT I	OVERVOLTAGE (Installation) CATEGORY I, Pollution Degree 2 per IEC1010-1*
* Refers to the level of Impulse Withstand Voltage protection provided. Equipment of OVERVOLTAGE CATEGORY I is equipment for connection to circuits in which measures are taken to limit the transient over voltages to an appropriate low level. Example include protect electronic circuits.	

80 PK-1 Thermocouple (supplied with thermometer)

Type	Type K, Chromel Alamel, bead style
Temperature Range	–40 °C to +260 °C (–40 °F to +500 °F)
Accuracy	± 1.1 °C (± 2.0 °F)

Electrical

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)
Display Resolution	0.1 °C / °F / K < 1000° 1.0 °C / °F / K ≥ 1000°

Electrical (cont.)

Measurement Accuracy, T1, T2, or T1-T2 (Model 52)	J-, K-, T-, and E-type: $\pm[0.05\% \text{ of reading} + 0.3^\circ\text{C} (0.5^\circ\text{F})]$ [below $-100^\circ\text{C} (-148^\circ\text{F})$: add 0.15 % of reading for J-, K-, E-, and N-type; and 0.45 % of reading for T-type]
Temperature Coefficient	0.01 % of reading + $0.03^\circ\text{C per } ^\circ\text{C}$ ($0.05^\circ\text{F per } ^\circ\text{F}$) outside the specified $+18^\circ\text{C}$ to 28°C ($+64^\circ\text{F}$ to $+82^\circ\text{F}$) range [below $-100^\circ\text{C} (-148^\circ\text{F})$: add 0.04 % of reading for J-, K-, E-, and N-type; and 0.08 % of reading for T-type]
Electromagnetic Compatibility	Susceptibility: $\pm 2^\circ\text{C}$ ($\pm 3.6^\circ\text{F}$) for 80 MHz to 200 MHz in 1.5 V/m field, for 200 MHz to 1000 MHz in 3 V/m field. Emissions: Commercial Limits per EN50081-1
Maximum Differential Common Mode Voltage	1 V (Maximum voltage difference between T1 and T2)
Temperature Scale	ITS-90

Applicable Standards	NIST-175
Accuracy is specified for ambient temperatures between 18°C (64°F) and 28°C (82°F) for a period of 1 year. The above specifications do not include thermocouple error.	

Replacement Parts and Accessories

Accessory	Part Number
Holster and Flex Stand™ Assembly	1272438
AA NEDA 15A IEC LR6 batteries	376756
80PK-1 K-Type Bead Thermocouple	773135
CD-ROM	1276106
Service Manual	1276123