

Technical data

7508/7511/7512 Refrigerated Temperature Calibration Baths

Unmatched refrigerated temperature stability and precision for a variety of applications

Wide selection, with the best digital temperature control available

Used by national labs for comparison calibrations and fixed-point cell maintenance, Fluke Calibration refrigerated temperature calibration baths operate at temperatures as low as $-10\text{ }^{\circ}\text{C}$, each built using CFC-free refrigerants. Each bath is fully automated with a bath interface package and Fluke Calibration MET/TEMP II automation software (with future support for CalStudio), which uses computer-controlled solenoid valves for precision balancing of the heating and cooling system. MET/TEMP II performs all calibration tasks automatically with the 1586A Super-DAQ, using your PC connected via USB or RS232 interfaces.

Unmatched temperature stability and precision

Fluke Calibration baths are engineered specifically for metrology, not adapted from other lab equipment. Using proprietary hybrid analog/digital controllers, the 7508/7511/7512 refrigerated calibration bath achieves high temperature stability $\pm 0.0007\text{ }^{\circ}\text{C}$ as well as exceptional temperature stability ± 0.001 and uniformity ($\pm 0.003\text{ }^{\circ}\text{C}$) at low temperatures down to $-10\text{ }^{\circ}\text{C}$. Set-Point Resolution reaches $0.001\text{ }^{\circ}\text{C}$.

Superior engineering for reliability, ease of use, and pain-free maintenance

Fluke Calibration refrigerated baths offer industry-leading reliability and longevity, which provides simplified upkeep and consistent performance over time. The intuitive, updated user interface makes adjusting settings quick and easy, while the variety of available bath sizes allow you to calibrate a wide range of Platinum Resistance Thermometers (PRTs), thermistors, thermocouples, maintaining triple point of water cells, or even the temperature of a blackbody cone. Our cold baths utilize internal refrigeration systems to reach each bath's coldest temperature. Heat-port technology is incorporated for efficient thermal management while balanced stirring mechanisms to eliminate temperature gradients without the need for pumps. Direct-drive stirrer motors and full fluid drainage also make for easy maintenance.



Product group:

- Electrical
- RF
- **Temperature**
- Humidity
- Pressure
- Flow
- Software

Specifications

Model	7508	7511	7512
Range	-5 °C to 110 °C		-10 °C to 110 °C
Stability	±0.0007 °C at 25 °C (water)		±0.0008 °C at 0 °C (ethanol)
	±0.001 °C at 25 °C (mineral oil)		±0.0008 °C at 25 °C (water)
			±0.003 °C at 100 °C (oil 5012)
Uniformity ^[1]	±0.003 °C at 25 °C (water)		±0.003 °C at 0 °C (ethanol)
	±0.004 °C at 25 °C (mineral oil)		±0.003 °C at 25 °C (water)
			±0.005 °C at 100 °C (oil 5012)
Temperature Setting	Digital display with push-button data entry		
Set-Point Resolution	0.001 °C		
Display Resolution	0.01 °C or 0.001 °C		
Digital Setting Accuracy	±1 °C		
Digital Setting Repeatability	±0.005 °C		
Heaters	500 and 1000 Watts		
Access Opening (call for customs)	324 x 184 mm (12.75 x 7.25 in)	127 x 254 mm (5 x 10 in)	162 x 292 mm (6.38 x 11.5 in)
Depth	331 mm (13 in)	305 mm (12 in)	457 mm (18 in)
Wetted Parts	304 Stainless Steel		
Power	115 VAC (±10 %), 60 Hz, 12 A (1380 VA); or 230 VAC (±10 %), 50 Hz, 6.39 A (1470 VA); or 208/230 VAC, 60 Hz, 6.39 A (1400 VA)		
Volume	42 liters (11.2 gal)	27 liters (7.2 gal)	42 liters (11.2 gal)
Weight	61 kg (135 lb)	56.7 kg (125 lb)	68 kg (150 lb)
Size	610 x 775 x 483 mm (24 x 30.5 x 19 in)	559 x 686 x 401 mm (22 x 27 x 15.8 in)	762 x 686 x 401 mm (30 x 27 x 15.8 in)
Automation	Use the 1586A Super-DAQ to automate temperature sensor calibration		
Communication	RS-232 + USB A/B		
Display	Color LCD MODULE,TFT,4.3 IN DIAG,480XRGBX272 PIXELS,LED BACKLIGHT		
Refrigerant	R290 Propane (A3 flammable)		

^[1] For 7511 and 7512, working zone definition applies as defined in the user manual.

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