

**Aumictech**

Test & measurement · bought, sold, repaired, calibrated

Data Sheet

August 13, 2026

FLUKE

Fluke 525B Temperature / Pressure Calibrator

Fluke 525B Temperature / Pressure Calibrator The Fluke Calibration 525B is a compact benchtop temperature/pressure calibrator for instrument shops, calibration labs, and ATE. It sources and measures a wide set of RTDs, thermocouples, and the YSI 400 thermistor, sources DC voltage/current/resistance, and measures pressure with Fluke 700 Series and 525A-P modules via a front-panel Lemo connector with automatic module detection. RS-232 and IEEE-488 interfaces support automated MET/CAL-class workflows. The Fluke Calibration 525B is a compact benchtop temperature/pressure calibrator for instrument shops, calibration labs, and ATE. It sources and measures a wide set of RTDs, thermocouples, and the YSI 400 thermistor, sources DC voltage/current/resistance, and measures pressure with Fluke 700 Series and 525A-P modules via a front-panel Lemo connector with automatic module detection. RS-232 and IEEE-488 interfaces support automated MET/CAL-class workflows.



MODEL

Fluke 525B

CALIBRATION

Available on request

CONDITION

Used

STATUS

In stock

RFQ / SKU

525B

LISTING

<https://aumictechlabs.com/products/525b-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Fluke 525B is a dual-function calibrator that sources and measures temperature and pressure signals across industrial, laboratory, and automated test environments. It simulates all ANSI thermocouple types, RTDs, and thermistors while simultaneously sourcing and measuring DC voltage and current for complete transmitter and sensor validation. Pressure measurement extends from 6900 Pa to 69 MPa with optional Fluke 700 Series, 525A-P Series, and 750P Series

modules. Dual RS-232-C and IEEE 488 (GPIB) interfaces enable integration with MET/CAL® Plus Calibration Management Software for fully automated workflows.

Technical Specifications

Temperature Measurement & Simulation Thermocouple types: J, K, T, E, R, S, B, L, U (ANSI standard) RTD: ITS-90 constants with source uncertainty as low as 0.03°C Thermistor support including YSI 400 type Selectable internal or external cold junction compensation

Pressure Measurement Internal sensor with external module compatibility Range: 0–1 inch of water (6900 Pa) to 10,000 PSI (69 MPa) with modules Unit conversion selectable from front panel or remote interface

Electrical Output & Measurement DC voltage source: 0–100 mV, 0–10 V, 0–100 V DC current source: 0–20 mA, 4–20 mA loop, 0–100 mA Current measurement: 0.015% accuracy, 0.001 mA resolution; alternative 0.02% accuracy Voltage and resistance measurement capability

Operating Characteristics Display: Two-line backlit LCD Settling time: <5 seconds (typical) Warm-up time: 2× duration since last use, maximum 30 minutes Power: 100/120 V or 220/240 V selectable, 47–63 Hz, 15 VA maximum Eight programmable setpoints for zero, span, and linearity checks

Key Features Compact, economical form factor Integrated thermocouple, RTD, thermistor, voltage, current, and pressure simulation Intuitive front panel with large keypads Modular pressure capability via Fluke 700/525A-P/750P modules Full automation support through MET/CAL® Plus integration

Typical Applications Transmitter calibration and verification Temperature sensor validation in process control systems Pressure gauge and transducer certification Automated test equipment (ATE) integration Calibration laboratory multifunction testing

Compatibility & Integration RS-232-C and IEEE 488 (GPIB) interfaces support remote operation and MET/CAL® Plus Calibration Management Software for unattended calibration sequences.

Features & description

From manufacturer datasheet

Features

- Highest-accuracy Fluke Calibration temperature calibrator class for TC/RTD/thermistor
- Source and measure thermocouples B, C, E, J, K, L, N, R, S, T, U
- SPRT 25.5 ohm measure capability
- Pressure via auto-detected external modules
- Two-line backlit LCD and 5-way binding posts
- Standard RS-232 and IEEE-488.2 interfaces

Applications

- Precision temperature calibration of TC, RTD, SPRT, and thermistor probes
- Process calibrator and instrument shop DC V/I/ohms workload
- Pressure measurement with Fluke 700 / 525A-P modules
- Automated lab temperature calibration via GPIB/RS-232

525B Characteristics / Specifications

PARAMETER	VALUE
Model	525B
Manufacturer	Fluke Calibration
Instrument Type	Temperature / Pressure Calibrator
Alias	525B; Fluke 525B
Voltage source range	0 to 100 V
Voltage source load	1 mA maximum
Current source range	0 to 100 mA
Current source compliance	10 V class / up to 12 V per detailed tables
Resistance source range	5 to 4000 ohm 2-wire class; 0 to 4000 ohm measure 4-wire
Thermocouple source types	B, C, E, J, K, L, N, R, S, T, U
Resistance measure range	0 to 4000 ohm
RTD measure range	-200 to 660 degC
Ni120 measure range	-80 to 100 degC
Cu10 measure range	-100 to 260 degC
YSI 400 thermistor range	15 to 50 degC
Pressure modules	Fluke 700 Series and 525A-P; range/accuracy by module
Pressure span class	about 1 inH ₂ O to 10000 psi via modules
Interfaces	RS-232; IEEE-488 GPIB
Settling time	less than 5 seconds
Operating temperature	0 to 50 degC
Calibration temperature t _{cal}	15 to 35 degC class
Storage temperature	-20 to 70 degC
Operating humidity	less than 80% to 30 degC; derated above
Operating altitude	3050 m maximum
Analog low isolation	20 V

PARAMETER	VALUE
Line power	100/120 or 220/240 V selectable; 47 to 63 Hz
Power consumption	15 VA maximum
Dimensions	5.25 × 12.5 × 18.6 in; 13.1 × 31.3 × 47.3 cm class
Weight	9 lb; 4 kg Notes Specs from Fluke 525B product page and getting-started/data sheet literature. Confirm installed pressure-module kit and exact certificate rows on the unit.
Humidity	less than 80% to 30 degC; derated above

General Specifications & Supplementary Characteristics

PARAMETER	VALUE
Storage temperature	20 to 70 degC
Operating temperature	0 to 50 degC
Operating Temperature	0 to 50 degC
Humidity	less than 80% to 30 degC; derated above
Calibration temperature tcal	15 to 35 degC class
Operating humidity	less than 80% to 30 degC; derated above
Operating altitude	3050 m maximum
Analog low isolation	20 V
Line power	100/120 or 220/240 V selectable; 47 to 63 Hz
Power consumption	15 VA maximum
Dimensions	5.25 × 12.5 × 18.6 in; 13.1 × 31.3 × 47.3 cm class
Weight	9 lb; 4 kg Notes Specs from Fluke 525B product page and getting-started/data sheet literature. Confirm installed pressure-module kit and exact certificate rows on the unit.

Full OEM specifications

Complete technical content extracted from the manufacturer datasheet. Sparse OEM tables are reconstructed as tables below; other text is preserved as paragraphs.

Specifications

Specifications

PARAMETER	VALUE
Model	525B
Manufacturer	Fluke Calibration
Instrument Type	Temperature / Pressure Calibrator
Alias	525B; Fluke 525B
Voltage source range	0 to 100 V
Voltage source load	1 mA maximum

Voltage source best 1-year: 25 ppm of setting
Current source range: 0 to 100 mA
Current source compliance: 10 V class / up to 12 V per detailed tables
Current source best 1-year: 100 ppm of setting
Resistance source range: 5 to 4000 ohm 2-wire class; 0 to 4000 ohm measure 4-wire
Resistance source best 1-year: 0.001 ohm
Thermocouple source types: B, C, E, J, K, L, N, R, S, T, U
Thermocouple source best 1-year: 0.12 degC typeEThermocouple measure best 1-year: 0.12 degC typeTSPRT 25.5 ohm measure range: -200 to 660 degC
SPRT measure best 1-year: 0.02 degC
Resistance measure range: 0 to 4000 ohm
Resistance measure best 1-year: 0.02 ohm
RTD measure range: -200 to 660 degC
RTD measure best 1-year: 0.015 degC Pt100
Ni120 measure range: -80 to 100 degC
Ni120 measure best 1-year: 0.01 degC
Cu10 measure range: -100 to 260 degC
Cu10 measure best 1-year: 0.06 degC
YSI 400 thermistor range: 15 to 50 degC
YSI 400 best 1-year: 0.007 degC

Specifications

PARAMETER	VALUE
Pressure modules	Fluke 700 Series and 525A-P; range/accuracy by module
Pressure span class	about 1 inH2O to 10000 psi via modules
Interfaces	RS-232; IEEE-488 GPIB
Settling time	less than 5 seconds

Warm-up: up to 30 minutes maximum after cold start class

Specifications

PARAMETER	VALUE
Operating temperature	0 to 50 degC
Calibration temperature tcal	15 to 35 degC class
Storage temperature	-20 to 70 degC
Operating humidity	less than 80% to 30 degC; derated above
Operating altitude	3050 m maximum
Analog low isolation	20 V
Line power	100/120 or 220/240 V selectable; 47 to 63 Hz
Power consumption	15 VA maximum
Dimensions	5.25 x 12.5 x 18.6 in; 13.1 x 31.3 x 47.3 cm class
Weight	9 lb; 4 kg

Notes
Specs from Fluke 525B product page and getting-started/data sheet literature. Confirm installed pressure-module kit and exact certificate rows on the unit.

Available from Aumictech

Used and refurbished unit evaluated in-house. Calibration: Available on request. Used · In stock.

Request a quote: sales@aumictech.com · +1 (484) 841-9341

Aumictech

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Technical content from manufacturer specifications. Unit photo/stock from Aumictech listing when available. Specifications subject to OEM documentation and unit condition.