

525A Temperature/ Pressure Calibrator

Superior accuracy and functionality in an economical benchtop package



The Fluke 525A Temperature/Pressure Calibrator gives you a workhorse combination of high accuracy and broad functionality for temperature and pressure instrument calibration. Compact and economical, the 525A has an interface for automated calibration, providing wide workload coverage in instrument shops and calibration labs, as well as in ATE applications.

The 525A is the most accurate Fluke temperature calibrator, sourcing and measuring a complete range of RTDs, thermocouples, and thermistors. It also measures pressure covering common ranges from 1 inch (6900 Pa) of water up to 10,000 PSI (69 MPa) using the Fluke 700 Series or 525A-P pressure modules. Plus, the DC voltage and current specifications of the 525A enable you to calibrate other process calibrators and a wide variety of other instruments with accuracy that rivals any calibrator in its price range.

Key features:

- Simulates and measures all ANSI thermocouples, as well as L and U types, and provides cold junction compensation to enable calibration of a wide variety of thermocouple instrumentation.
- Direct input for storage of ITS-90 RTD constants for highly accurate simulation and measurement of RTD probes.
- Direct measurement of all Fluke 700 Series and model 525A-P pressure modules covering the most common pressure ranges from 0-1" H₂O to 0-10,000 PSI.
- Converts easily to any pressure unit directly from the front panel or through remote communications.
- Sources DC voltage and current for multifunction workload coverage, enabling calibration of data loggers, strip chart recorders, multimeters, and other industrial instruments.
- Supports automation using Fluke's MET/CAL® Plus Calibration Management Software or custom automated programs with standard RS-232-C or optional GPIB interface.
- Eight user programmable setpoints allow quick recall of values for Zero, Span and linearity checks during calibration.
- Programmable setpoint dwell times for automated calibration and troubleshooting.
- Selectable internal or external CJC (Cold junction compensation) provides you with the ability to make exacting thermocouple measurements using remote junctions.
- Easy five-way binding posts for low-loss convenient hookup. Banana plug, screw terminal, spade lug, wraparound terminal, wire pass-through terminal.
- NIST-traceable calibration with data is included.

Technical Data

At home in the cal lab

The 525A is a compact bench instrument well suited for traditional calibration laboratories with a large temperature workload. Its 0-100V output and 0-100 mA current capabilities – plus its ability to serve as a highly-accurate pressure standard – make it a versatile performer.

Filling the gap in the instrument shop

In process plant environments, instrument shop technicians responsible for maintaining the equipment pool need to calibrate and repair a wide range of instruments, transmitters, field calibrators, P/I converters, transducers, and temperature probes. With its ability to simulate almost any temperature sensor, precise pressure monitoring capability, and DC voltage and current accuracy rivaling any calibrator in its price range, the 525A fills the gap between lower accuracy handheld field calibrators and more expensive high-end multifunction calibrators.

A good fit for ATE test applications

With precise calibration-grade instrument control enabled via an IEEE bus, the 525A is a hardworking addition to automated test systems in quality and manufacturing test applications requiring capabilities such as voltage and current sourcing, sensor simulation, and temperature monitoring and validation.

Powerful functionality that is easy to use

From start to finish, the 525A is designed for ease of operation. The intuitive front panel design features large keypads and display that help reduce training time and make the 525A comfortable to use even for long periods of time. Plus, you can store frequently used constants for a variety of probes in memory for faster setup on the job.

MET/CAL[®] Plus automates 525A calibration and documentation management

You can use the 525A with Fluke's MET/CAL Plus calibration software (V.6.11 or later) to meet the stringent documentation and reporting requirements imposed by quality standards such as ISO 9000. MET/CAL Plus is a powerful software environment for creating, editing, testing, and documenting calibration procedures, and for performing automated calibrations.

At the core of MET/CAL Plus is MET/TRACK, a database management system for test and measurement assets created specifically to manage equipment. It enables you to track the information you need to maintain quality calibrations. And it supports the traceability and record-keeping requirements of modern quality and accreditation standards.

MET/TRACK provides you with a variety of standard report formats prepared with Crystal Reports™ Professional, which is included with MET/CAL Plus. These report formats cover a wide range of information to help you meet many of your documentation requirements, including those for ISO 9000 and similar quality standards. They report on forward and reverse traceability, allowing you to easily document traceability from any asset to the equipment calibrated. It even includes measurement uncertainty reporting to meet the requirements of ISO/IEC 17025.



Pressure modules

An optional set of external pressure modules provides pressure measurement capability. The 525A can accept either the Fluke 700 Series or the Fluke model 525A-P pressure modules. Both module types plug directly into the calibrator's front panel Lemo connector; the 525A firmware auto-detects the type and value of the attached module.

World-class temperature calibration solutions

In addition to the 525A Temperature/Pressure Calibrator, Fluke offers

a wide range of easy-to-use, cost-effective solutions for temperature calibration applications including:

- **Fluke 500 Series Dry-Block Temperature Calibrators** for highly accurate temperature calibration in a small package.
- **Fluke 518 BatchCAL Batch Calibration System**, for automated batch calibration of up to 14 temperature probes at one time.
- **Fluke 2620T/2635T Recording Thermometers** are based on the Fluke's Hydra Series II data loggers for precision multi-channel temperature recording and logging.
- **Agilent 34420/SPRT/PRT Precision Thermometers** for accurate, repeatable low-level temperature measurements.

Fluke—providing complete calibration solutions for more than 50 years

To compete in the world market, you need to be able to accurately and cost effectively measure up to world standards. Only Fluke offers so many solutions to match your workload and budget, including:

- A broad line of multi-product and multifunction calibrators.

525A Temperature/Pressure Calibrator Specifications

DC Voltage Specifications, Source Only

Ranges ¹	Absolute Uncertainty, tcal ± 5 °C ± (% of output + μV)		Stability	Resolution	Maximum Burden ²
	90 days	1 year	24 hours, ± 1 °C ± (% output + μV)		
0 to 100.000 mV	0.0025 + 3	0.003 + 3	0.0005 + 2	1 μV	10 mA
0 to 1.00000 V	0.0025 + 20	0.003 + 20	0.0004 + 20	10 μV	10 mA
0 to 10.0000 V	0.0025 + 200	0.003 + 200	0.0004 + 200	100 μV	10 mA
0 to 100.000 V	0.0025 + 2 mV	0.003 + 2 mV	0.0005 + 1 mV	1 mV	1 mA
TC Source					
-10 to 75.000 mV	0.0025 + 3	0.003 + 3	0.0005 + 2	1 μV	10Ω

¹ All outputs are positive only.

² Remote sensing is not provided. Output resistance is < 1Ω.

DC Current Specifications, Source Only

Ranges ¹	Absolute Uncertainty, tcal ± 5 °C ± (% of output + μA)		Resolution	Maximum Compliance Voltage	Maximum Inductive Load
	90 days	1 year			
0 to 100.000 mA	0.0085 + 2	0.01 + 2	1 μA	10V	100 μH

¹ All outputs are positive only.

Resistance Specifications, Source

Ranges ¹	Absolute Uncertainty, tcal ± 5 °C ± (floor)		Resolution	Allowable Current ²
	90 days	1 year		
5Ω to 400.00Ω	0.025	0.03	0.01Ω	1 to 10 mA
5Ω to 4.0000 kΩ	0.25	0.3	0.1Ω	250 μA to 1 mA

¹ Continuously variable from 0 to 4 kΩ. 2-wire output only.

² For currents lower than shown, the floor adder increases by Floor_(new) = Floor_(old) × I_{min}/I_{actual}. For example, a 500 μA stimulus measuring 100Ω has a floor uncertainty of 0.025Ω × 1 mA/500 μA = 0.05Ω.

- High performance oscilloscope calibrators to cover the widest range of bandwidths.
- A growing selection of solutions for temperature calibration.
- A comprehensive line of calibration standards.
- Precision digital multimeters for the standards lab.
- Calibration and asset management software.
- A lineup of general-purpose test instruments including data loggers, waveform and function generators, and time and frequency products.

As the world leader in precision measurement, Fluke covers all the bases – accurately, reliably, and cost effectively.

Calibration service, repair, and support

Fluke provides extensive calibration support and service to maximize the value of your calibration investment. Our worldwide network of Calibration Centers has traceability to national standards. Service and support are just a telephone call or fax away. We offer fast, quality repair and calibration services including a module exchange program, comprehensive training, and full support in setting up your lab.

Ranges	Noise	
	Bandwidth 0.1 to 10 Hz p-p ± (ppm output + μV)	Bandwidth 10 Hz to 10 kHz rms μV
0 to 100.000 mV	1 μV	6 μV
0 to 1.00000V	10 μV	60 μV
0 to 10.0000V	100 μV	600 μV
0 to 100.000V	10 ppm + 1 mV	20 mV

Ranges	Noise	
	Bandwidth 0.1 to 10 Hz p-p ± (ppm + μA)	Bandwidth 10 Hz to 10 kHz rms
0 to 100.000 mA	2000 nA	20 μA

Thermocouple Specification, Source and Measure

TC Type	Range (°C)		Absolute Uncertainty, tcal ± 5°C, + (°C) ¹	
	Minimum	Maximum	Source/Measure	
			90 days	1 year
B	600°C	800°C	0.42°C	0.44°C
	800°C	1000°C	0.34°C	0.34°C
	1000°C	1550°C	0.30°C	0.30°C
	1550°C	1820°C	0.26°C	0.33°C
C	0°C	150°C	0.23°C	0.30°C
	150°C	650°C	0.19°C	0.26°C
	650°C	1000°C	0.23°C	0.31°C
	1000°C	1800°C	0.38°C	0.50°C
E	1800°C	2316°C	0.63°C	0.84°C
	-270°C	-100°C	0.38°C	0.50°C
	-100°C	-25°C	0.12°C	0.16°C
	-25°C	350°C	0.10°C	0.14°C
J	350°C	650°C	0.12°C	0.16°C
	650°C	1000°C	0.16°C	0.21°C
	-210°C	-100°C	0.20°C	0.27°C
	-100°C	-30°C	0.12°C	0.16°C
K	-30°C	150°C	0.10°C	0.14°C
	150°C	760°C	0.13°C	0.17°C
	760°C	1200°C	0.18°C	0.23°C
	-270°C	-100°C	0.25°C	0.33°C
L	-100°C	-25°C	0.14°C	0.18°C
	-25°C	120°C	0.12°C	0.16°C
	120°C	1000°C	0.19°C	0.26°C
	1000°C	1372°C	0.30°C	0.40°C
N	-200°C	-100°C	0.37°C	0.37°C
	-100°C	800°C	0.26°C	0.26°C
	800°C	900°C	0.17°C	0.17°C
	-270°C	-100°C	0.30°C	0.40°C
R	-100°C	-25°C	0.17°C	0.22°C
	-25°C	120°C	0.15°C	0.19°C
	120°C	410°C	0.14°C	0.18°C
	410°C	1300°C	0.21°C	0.27°C
S	-50°C	250°C	0.48°C	0.57°C
	250°C	400°C	0.28°C	0.35°C
	400°C	1000°C	0.26°C	0.33°C
	1000°C	1767°C	0.30°C	0.40°C
T	-50°C	250°C	0.47°C	0.47°C
	250°C	1000°C	0.30°C	0.36°C
	1000°C	1400°C	0.28°C	0.37°C
	1400°C	1767°C	0.34°C	0.46°C
U	-270°C	-150°C	0.48°C	0.63°C
	-150°C	0°C	0.18°C	0.24°C
	0°C	120°C	0.12°C	0.16°C
	120°C	400°C	0.10°C	0.14°C
U	-200°C	0°C	0.56°C	0.56°C
	0°C	600°C	0.27°C	0.27°C

¹ Does not include thermocouple error. Measurement standard = ITS 90.

Resistance Specifications, Measure

Ranges ¹	Absolute Uncertainty, tcal ± 5 °C ± (% of reading + Ω)		Resolution	Stimulus Current
	90 days	1 year		
0Ω to 400.000Ω	0.0035 + 0.002	0.004 + 0.002	0.001Ω	1 mA
401 to 4001.00Ω	0.0035 + 0.02	0.004 + 0.02	0.01Ω	0.1 mA

¹ 4-wire measurement.

525A Temperature/Pressure Calibrator Specifications (cont.)

RTD and Thermistor Specifications, Source

RTD Type	Range (°C)		Absolute Uncertainty, tcal ± 5°C, + (°C) ¹	
			Source	
	Minimum	Maximum	90 days	1 year
Pt 385, 100Ω	-200°C	-80°C	0.06°C	0.07°C
	-80°C	0°C	0.08°C	0.10°C
	0°C	100°C	0.08°C	0.10°C
	100°C	300°C	0.07°C	0.09°C
	300°C	400°C	0.07°C	0.09°C
	400°C	630°C	0.08°C	0.09°C
	630°C	800°C	0.08°C	0.10°C
Pt 3926, 100Ω	-200°C	-80°C	0.06°C	0.07°C
	-80°C	0°C	0.06°C	0.07°C
	0°C	100°C	0.06°C	0.08°C
	100°C	300°C	0.07°C	0.08°C
	300°C	400°C	0.07°C	0.09°C
	400°C	630°C	0.08°C	0.09°C
Pt 3916, 100Ω	-200°C	-190°C	0.06°C	0.07°C
	-190°C	-80°C	0.06°C	0.08°C
	-80°C	0°C	0.06°C	0.08°C
	0°C	100°C	0.06°C	0.08°C
	100°C	260°C	0.07°C	0.08°C
	260°C	300°C	0.07°C	0.08°C
	300°C	400°C	0.07°C	0.09°C
	400°C	600°C	0.08°C	0.09°C
	600°C	630°C	0.08°C	0.09°C
Pt 385, 200Ω	-200°C	-80°C	0.03°C	0.04°C
	-80°C	0°C	0.03°C	0.04°C
	0°C	100°C	0.03°C	0.04°C
	100°C	260°C	0.03°C	0.04°C
	260°C	300°C	0.36°C	0.43°C
	300°C	400°C	0.36°C	0.43°C
	400°C	600°C	0.42°C	0.50°C
	600°C	630°C	0.42°C	0.50°C
Pt 385, 500Ω	-200°C	-80°C	0.01°C	0.02°C
	-80°C	0°C	0.13°C	0.15°C
	0°C	100°C	0.13°C	0.16°C
	100°C	260°C	0.14°C	0.17°C
	260°C	300°C	0.14°C	0.17°C
	300°C	400°C	0.15°C	0.18°C
	400°C	600°C	0.16°C	0.19°C
Pt 385, 1000Ω	-200°C	-80°C	0.06°C	0.07°C
	-80°C	0°C	0.06°C	0.08°C
	0°C	100°C	0.07°C	0.08°C
	100°C	260°C	0.07°C	0.08°C
	260°C	300°C	0.07°C	0.09°C
	300°C	400°C	0.07°C	0.09°C
	400°C	600°C	0.08°C	0.09°C
	600°C	630°C	0.08°C	0.09°C
PtNi 385, 120Ω (Ni120)	-80°C	0°C	0.04°C	0.05°C
	0°C	100°C	0.04°C	0.04°C
	100°C	260°C	0.03°C	0.03°C
Cu 427, 10Ω ²	-100°C	260°C	0.63°C	0.75°C
YS1400	15°C	50°C	0.005°C	0.007°C

¹ 2-wire output

² Based on MINCO Application Aid No. 18.

Note: Resolution is 0.1°.

Measurement standard = ITS 90.

RTD and Thermistor Specifications, Measure

RTD Type	Range (°C)		Absolute Uncertainty, tcal ± 5°C, + (°C) ¹	
	Minimum	Maximum	Measure	
			90 days	1 year
Pt 385, 100Ω	-200°C	-80°C	0.011°C	0.012°C
	-80°C	0°C	0.018°C	0.020°C
	0°C	100°C	0.018°C	0.020°C
	100°C	300°C	0.027°C	0.030°C
	300°C	400°C	0.031°C	0.035°C
	400°C	630°C	0.042°C	0.047°C
Pt 3926, 100Ω	630°C	800°C	0.050°C	0.057°C
	-200°C	-80°C	0.011°C	0.011°C
	-80°C	0°C	0.014°C	0.015°C
	0°C	100°C	0.018°C	0.019°C
	100°C	300°C	0.026°C	0.029°C
Pt 3916, 100Ω	300°C	400°C	0.031°C	0.034°C
	400°C	630°C	0.041°C	0.046°C
	-200°C	-190°C	0.006°C	0.006°C
	-190°C	-80°C	0.011°C	0.012°C
	-80°C	0°C	0.014°C	0.015°C
Pt 385, 200Ω	0°C	100°C	0.018°C	0.019°C
	100°C	260°C	0.025°C	0.028°C
	260°C	300°C	0.026°C	0.029°C
	300°C	400°C	0.031°C	0.034°C
	400°C	600°C	0.040°C	0.045°C
	600°C	630°C	0.042°C	0.047°C
	-200°C	-80°C	0.008°C	0.009°C
	-80°C	0°C	0.012°C	0.013°C
Pt 385, 500Ω	0°C	100°C	0.015°C	0.017°C
	100°C	260°C	0.020°C	0.022°C
	260°C	300°C	0.050°C	0.053°C
	300°C	400°C	0.053°C	0.057°C
	400°C	600°C	0.070°C	0.075°C
	600°C	630°C	0.071°C	0.076°C
	-200°C	-80°C	0.007°C	0.008°C
	-80°C	0°C	0.019°C	0.020°C
Pt 385, 1000Ω	0°C	100°C	0.023°C	0.025°C
	100°C	260°C	0.030°C	0.033°C
	260°C	300°C	0.032°C	0.035°C
	300°C	400°C	0.037°C	0.041°C
	400°C	600°C	0.047°C	0.052°C
	600°C	630°C	0.048°C	0.053°C
	-200°C	-80°C	0.011°C	0.012°C
	-80°C	0°C	0.014°C	0.015°C
PtNi 385, 120Ω (Ni120)	0°C	100°C	0.019°C	0.020°C
	100°C	260°C	0.025°C	0.028°C
	260°C	300°C	0.027°C	0.030°C
Cu 427, 10Ω ²	300°C	400°C	0.030°C	0.034°C
	400°C	600°C	0.041°C	0.045°C
	600°C	630°C	0.042°C	0.047°C
YS1400	-80°C	0°C	0.009°C	0.010°C
	0°C	100°C	0.010°C	0.011°C
25Ω SPRT3	100°C	260°C	0.011°C	0.012°C
	-100°C	260°C	0.067°C	0.069°C
YS1400	15°C	50°C	0.005°C	0.007°C
	-200°C	660°C	0.015°C	0.020°C

¹ 4-wire mode. Uncertainties listed do not include probe uncertainties.

² Based on MINCO Application Aid No. 18.

Note: Resolution on all RTD and Thermistor Measurements is 0.001Ω.

Measurement standard = ITS 90.

525A Temperature/Pressure Calibrator Specifications (cont.)

Pressure Measurement Specifications

Range	Absolute Uncertainty, \pm cal + 5 °C	Resolution	Units
Determined by pressure module	Determined by pressure module	Determined by pressure module	BAR; cm/H2O; in/H2O; in/Hg; KG/CM2; KPa; MBAR; mmHg

700 Series Pressure Modules Specifications

	Model	Range/Resolution	Range (approx)/Resolution	Uncertainty ¹	High ² side media	Low ² side media	Fitting material
Differential	Fluke 700P00	1 in. H2O/0.001	0.25 kPa/0.0002	0.35%	Dry	Dry	316 SS
	Fluke 700P01	10 in. H2O/0.01	2.5 kPa/0.002	0.30%	Dry	Dry	316 SS
	Fluke 700P02	1 psi/0.0001	6900 Pa/0.7	0.30%	Dry	Dry	316 SS
	Fluke 700P22	1 psi/0.0001	6900 Pa/0.7	0.15%	316 SS	Dry	316 SS
	Fluke 700P03	5 psi/0.0001	34 kPa/0.001	0.10%	Dry	Dry	316 SS
	Fluke 700P23	5 psi/0.0001	34 kPa/0.001	0.05%	316 SS	Dry	316 SS
	Fluke 700P04	15 psi/0.001	103 kPa/0.01	0.05%	Dry	Dry	316 SS
Gage	Fluke 700P05	30 psi/0.001	207 kPa/0.01	0.05%	316 SS	N/A	316 SS
	Fluke 700P06	100 psi/0.01	690 kPa/0.07	0.05%	316 SS	N/A	316 SS
	Fluke 700P27	300 psi/0.01	2070 kPa/0.1	0.05%	316 SS	N/A	316 SS
	Fluke 700P07	500 psi/0.01	3400 kPa/0.1	0.05%	316 SS	N/A	316 SS
	Fluke 700P08	1000 psi/0.1	6900 kPa/0.7	0.05%	316 SS	N/A	316 SS
	Fluke 700P09	1500 psi/0.1	10 M Pa/0.001	0.05%	316 SS	N/A	316 SS
Absolute	Fluke 700PA3	5 psi/0.0001	34 kPa/0.001	0.07%	316 SS	N/A	316 SS
	Fluke 700PA4	150 psi/0.001	103 kPa/0.001	0.07%	316 SS	N/A	316 SS
	Fluke 700PA5	30 psi/0.001	207 kPa/0.01	0.07%	316 SS	N/A	316 SS
	Fluke 700PA6	100 psi/0.01	690 kPa/0.001	0.07%	316 SS	N/A	316 SS
Vacuum	Fluke 700PV3	-5 psi/0.0001	-34 kPa/0.001	0.07%	316 SS	Dry	316 SS
	Fluke 700PV4	-15 psi/0.001	-103 kPa/0.01	0.07%	316 SS	Dry	316 SS
Dual	Fluke 700PD2	\pm 1 psi/0.0001	\pm 6900 Pa/0.7	0.20%	316 SS	Dry	316 SS
	Fluke 700PD3	\pm 5 psi/0.0001	\pm 34 kPa/0.001	0.07%	316 SS	Dry	316 SS
	Fluke 700PD4	\pm 15 psi/0.001	\pm 103 kPa/0.01	0.05%	316 SS	Dry	316 SS
	Fluke 700PD5	-15/30 psi/0.001	-100/207 kPa/0.01	0.05%	316 SS	N/A	316 SS
	Fluke 700PD6	-15/100 psi/0.01	-100/690 kPa/0.07	0.05%	316 SS	N/A	316 SS
	Fluke 700PD7	-15/200 psi/0.01	-100/1380 kPa/0.1	0.07%	316 SS	N/A	316 SS
High	Fluke 700P29	3000 psi/0.1	20.7 M Pa/0.001	0.08%	C276	N/A	C276
	Fluke 700P30	5000 psi/0.1	34 M Pa/0.001	0.08%	C276	N/A	C276
	Fluke 700P31	10000 psi/1	69 M Pa/0.007	0.08%	C276	N/A	C276

¹Total uncertainty, one year for temperature range 0°C to +50°C. Total uncertainty, 1.0% of full span for temperature range -10°C to 0°C. For P00 module only, compensated temperature range is 15°C to 35°C.

²"Dry" indicates dry air or non-corrosive gas as compatible media.

"316SS" indicates media compatible with Type 316 Stainless Steel. "C276" indicates media compatible with Hastelloy C276.

Use of pressure zero is required prior to measurement or source. Max overpressure specification includes common mode pressure. Modules are CE rated. Metric adapter(s):

1/4" NPr female to male BSP/ISO 1/4-19, tapered thread, included with all modules except P29, P30, and P31, all modules include a NIST traceable certificate and test data.

525A-P Series Pressure Module Specifications

Type	Fluke Model	Range/Resolution	Range/Resolution	Uncertainty ¹ (180 day)
Differential	525A-P02	1psi / 0.00001	6900 Pa / 0.01	0.01% FS
Gage	525A-P05	30 psi / 0.0001	207 kPa / 0.001	0.01% FS
Gage	525A-P06	100 psi / 0.001	690 kPa / 0.001	0.01% FS
Gage	525A-P07	500 psi / 0.001	3400 kPa / 0.01	0.01% FS
Gage	525A-P08	1000 psi / 0.01	6900 kPa / 0.01	0.01% FS
Gage	525A-P29	3000 psi / 0.01	20.7 MPa / 0.0001	0.01% FS
Absolute	525A-PA6	100 psia / 0.001	690 KPa / 0.0001	0.01% FS
Absolute	525A-PA7	500 psia / 0.001	3400 kPa / 0.01	0.01% FS
Absolute	525A-PA8	1000 psia / 0.01	6900 kPa / 0.01	0.01% FS
Vacuum	525A-PV4	- 15 psi / 0.0001	- 103 kPa / 0.001	0.01% FS
Absolute	525A-PA4	15 psia / 0.0001	103 kPa / 0.001	0.01% FS

Media - dry, non-corrosive gases
 Total uncertainty (180 day): 0.01% FS (15°C to 45°C) : 1 year 0.025 % FS (15°C to 45°C)
 Overpressure: 150% or greater
 Compensated temperature range: 15°C to 45°C
 Confidence interval: 95%

General Specifications, 525A

Warm-up Time	Twice the time since last warmed up, to a maximum of 30 minutes
Settling Time	Less than 5 seconds for all functions and ranges except as noted
Interfaces	Standard, RS-232; Optional, IEEE-488 (GPIB)
Temperature Performance	Operating: 0 °C to 50 °C; Calibration (tcal): 15 °C to 35 °C; Storage: -20 °C to 70 °C
Electromagnetic Compatibility	Meets CE requirements, including susceptibility
Temperature Coefficient	Temperature Coefficient for temperatures outside tcal +5 °C is 10% of the 90-day specification (or 1-year, as applicable) per °C
Relative Humidity	Operating: <80% to 30 °C, <70% to 40 °C, <40% to 50 °C; Storage: <95%, noncondensing
Altitude	Operating: 3,050m (10,000 ft) maximum; Non-operating: 12,200m (40,000 ft) maximum
Safety	Designed to comply with IEC 61010 Second Edition; ANSI/ISA-S82.01-1994; CAN/CSA-C22.2 No. 1010.1-92 Has CSA marking or equivalent
Analog Low Isolation	20V
EMC	Designed to comply with IEC 61326-1/1997 (EMC)
Line Power	Line Voltage (selectable): 100/120V or 220/240V; Line Frequency: 47 to 63 Hz Line Voltage Variation: +10% about line voltage setting
Power Consumption	< 10 VA
Dimensions	Height, 13.2 cm (5.25 inches), plus 1.5 cm (0.6 inches) for feet on bottom of unit; Width, 32.6 cm (12.85 inches), 3/4 standard rack width; Depth, 33.3 cm (13.1 inches) overall; 23.9 cm (9.4 inches) chassis only
Weight (without options)	9 Lbs (4 Kg)



Ordering Information

Model	Description
525A	Temperature/Pressure Calibrator
525A-GPIB	Temperature/Pressure Calibrator with GPIB interface
Software	
MET/CAL	Automated Calibration Software (IEEE-488 and RS-232)
Accessories	
5520A-525A/Leads	Thermocouple and test lead set 1 meter TC wire with male mini-plugs, All ANSI, L and U types; TC shorting plug; 1, 80 AK-8001 TC adapter; 1, bead thermocouple type K; 1 meter shielded test lead with double banana plugs (M); 2, 30A test leads, banana type connectors
Y525	19" Rack Mount Kit
Fluke 700PD3	Dual Pressure Module ± 5 psi / ± 34 kPa
Fluke 700P31	High Pressure Module 10000 psi/69 M Pa
Fluke 700P22	Differential Pressure Module 1 psi / 6900 Pa
Fluke 700P24	Differential Pressure Module 15 psi / 103 kPa
Fluke 700PD2	Dual Pressure Module ± 1 psi / ± 6900 Pa
Fluke 700P08	Gage Pressure Module 1000 psi / 6900 kPa
Fluke 700PA4	Absolute Pressure Module 15 psi / 103 kPa
Fluke 700P30	High Pressure Module 5000 psi / 34 M Pa
Fluke 700PD7	Dual Pressure Module -15/200 psi / -100/1380 kPa
Fluke 700P05	Gage Pressure Module 30 psi / 207 kPa
Fluke 700P06	Gage Pressure Module 100 psi / 690 kPa
Fluke 700P29	High Pressure Module 3000 psi / 20.7 M Pa
Fluke 700PD5	Dual Pressure Module -15 / 30 psi / -100 / 207 kPa
Fluke 700PV3	Vacuum Pressure Module -5 psi / -34 kPa
Fluke 700P23	Differential Pressure Module 5 psi / 34 kPa
Fluke 700PA5	Absolute Pressure Module 30 psi / 207 kPa
Fluke 700P03	Differential Pressure Module 5 psi / 34 kPa
Fluke 700PD6	Dual Pressure Module -15/100 psi / -100/690 kPa
Fluke 700P04	Differential Pressure Module 15 psi / 103 kPa
Fluke 700PA6	Absolute Pressure Module 100 psi / 6900 kPa
Fluke 700P01	Differential Pressure Module 10.00 in. H2O / 2.5 kPa
Fluke 700PD4	Dual Pressure Module ± 15 psi / ± 103 kPa
PV350	Pressure/Vacuum Module (0 to 350 PSI)
Fluke 700P00	Differential Pressure Module 1.000 in H2O / 0.25 kPa
Fluke 700P07	Gage Pressure Module 500 psi / 3400 kPa
Fluke 700P09	Gage Pressure Module 1500 psi /10 MPa
Fluke 700P02	Differential Pressure Module 1 psi / 6900 Pa
Fluke 700P27	High Pressure Module 300 psi / 2070 kPa
Fluke 700PV4	Vacuum Pressure Module -15 psi / -103 kPa
Fluke 700PA3	Absolute Pressure Module 5 psi / 34 kPa
525A-P02	Differential 1 psi / 6900 Pa
525A-P05	Gage 30 psi / 207 kPa
525A-P06	Gage 100 psi / 690 kPa
525A-P07	Gage 500 psi / 3400 kPa
525A-P08	Gage 1000 psi / 6900 kPa
525A-P29	Gage 3000 psi / 20.7 MPa
525A-PA6	Absolute 100 psia / 6900 kPa
525A-PA7	Absolute 500 psia / 3400 kPa
525A-PA8	Absolute 1000 psia / 6900 kPa
Support	
MET/SUPPORT Gold	Software Support Program, one-year membership
MET/SUPPORT GLDNW	MET/SUPPORT Gold Program, up to four workstations, one-year membership

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Fluke Corporation
PO Box 9090, Everett, WA USA 98206
Fluke Europe B.V.
PO Box 1186, 5602 BD
Eindhoven, The Netherlands

For more information call:
In the U.S.A. (800) 443-5853 or Fax (425) 446-5116
In Europe/M-East/Africa (31 40) 2 675 200 or Fax (31 40) 2 675 222
In Canada (800)-36-FLUKE or Fax (905) 890-6866
From other countries (425) 446-5500 or Fax (425) 446-5116
Web access: <http://www.fluke.com>

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