



ALPHA LAB CALIBRATION CAPABILITIES

Discipline	Range	Function	Reference	Uncertainty (+/-)	Accredited	UUT (unit under test)
Temperature	-200 to 1200°C	Source	Oil Baths, LN2, Dryblock, Furnace	From 0.010°C	ISO17025	RTDs, PRTs, TCs, Thermistors, Thermometers, Chambers, Dryblocks, Liquid Baths, Temperature Dataloggers, IIG
	-95 to 150°C	Source	Dry Air Chamber	0.1°C	ISO17025	Thermometers, Records, KAYE IRTDs
	-200 to 660°C	Measure	SPRT	0.01°C	ISO17025	
	660 to 1200°C	Measure	TC-S	0.5°C	ISO17025	
	-196, -38, 0, 230, 420, 660°C	Source	Fluke Intrinsic Metal Cells	<0.01°C	ISO17025	
IR Temperature	-15 to 500°C	Source	Fluke 4180/4181	0.40%	ISO17025	Infrared Thermometers
Humidity	0 to 95% RH	Source	Thunder 2500ST	0.3% RH	ISO17025	Hygrometers, T/RH Meters, Chilled Mirror Instruments, Dewpoint Transmitters, Chart Recorders, T/RH Chambers, Dataloggers
	-95 to +70°C Dew Point	Source	Thunder 3900	0.15°C	ISO17025	
	0 to 95% RH	Measure	Rotronic HC2	0.7% RH	ISO17025	
Electrical	0 to 1000V DC	Measure	Fluke 8508A	3.5 ppm	ISO17025	Multimeters, Current Clamps, Process Meters, Testers, Resistors, Thermometers, Dataloggers, Power Supplies, Decade Boxes, Insulation Testers (Megohmmeters), Hi-Pot Testers, Ground Earth Resistance Testers, Power Analyzers, Oscilloscopes, KAYE Validators
	0 to 1000V DC	Source	Fluke 5522A	12 ppm	ISO17025	
	0 to 1200A DC	Measure	Fluke 8508A/Shunts	14 ppm	ISO17025	
	0 to 40A DC	Source	Fluke 5522A	0.01%	ISO17025	
	0 to 2 Gohms	Measure	Fluke 8508A	8 ppm	ISO17025	
	0 to 1.1 Gohms	Source	Fluke 5522A	28 ppm	ISO17025	
	0 to 1000V AC	Measure	Fluke 8508A	90 ppm	ISO17025	
	0 to 1000V AC	Source	Fluke 5522A	0.02%	ISO17025	
	0 to 30A AC	Measure	Fluke 8508A	0.03%	ISO17025	
	0 to 40A AC	Source	Fluke 5522A	0.10%	ISO17025	
	0 to 1500A AC/DC	Source	Fluke 5522/COIL	0.30%	ISO17025	
	0 to 10 kV AC/DC	Measure	Vitrek 4700	0.04%	ISO17025	
	0 to 10 kV DC	Source	Fluke 410B	0.04%	ISO17025	
	Power: 20kW: AC/DC	Source	Fluke 5522A	0.05%	ISO17025	
	Harmonics (up to 50th)	Source	Fluke 5522A	0.10%	NIST	
	Oscilloscopes (up to 600 MHz)	Source	Fluke 5522A	0.25%	ISO17025	
	Capacitance: 0.19nF to 110mF	Source	Fluke 5522A	0.40%	ISO17025	
	Thermocouples: E, J, K, N, R, S, T	Source/Measure	Fluke 5522A	0.2°C	ISO17025	
	RTD: Pt385, Pt3926, Pt3916	Source	Fluke 5522A	0.07°C	ISO17025	
	RTD: 0, 25, 100, 400 Ohms	Source	Hart Scientific 3591	6 ppm	ISO17025	
	Therm: 0, 4, 10, 40, 100, 500 kOhms	Source	Hart Scientific 3591	50 ppm	ISO17025	
	Frequency: to 225 MHz	Source/Measure	Agilent 53131A	0.001%	ISO17025	
	Hi-Voltage Resistance: <1TOhm	Source	Cropico RH9A	0.1%	ISO17025	
	Fixed Point Resistances	Source	IET SRL Series	2.5 ppm	ISO17025	
	Precision Resistance: up to 2kOhm	Source	Cropico RH9A	0.05%	ISO17025	
Pressure	-60 to +60 in H2O	Source/Measure	DHI PPC3/Ruska 7250LP	0.01%	ISO17025	Gauges, Manometers, Differential Pressure Gauges, Transmitters, Transducers, Barometers, DWT
	0 to 1000 psig/psia	Source/Measure	Fluke 6270A	0.01%	ISO17025	
	200 to 20000 psig	Source/Measure	DWT	0.006%	ISO17025	
	500 to 1200 mbar	Source/Measure	Barometer	0.11 mbar	ISO17025	
	0 to -14.5 psig	Source/Measure	Fluke RPM4	0.0015 psig	ISO17025	
Conductivity	up to 12.8mS	Source	Conductivity Solution	0.4%	ISO17025	Conductivity Meters
pH	4, 7, 10 pH	Source	pH Solutions	0.02 pH	ISO17025	pH Meters
Viscosity	up to 446 cP	Source	Reference Oil	0.32%	NIST	Viscometers
Time	24 Hours	Source	Timometer	0.06s/day	ISO17025	Stopwatch, Timers
Tachometers	0 to 200000 rpm	Source/Measure	Fluke 5522A	150ppm	ISO17025	Non-Contact Tachometers
Sound	94 to 114 dB, up to 4 kHz	Source/Measure	GenRad 1986	0.5 dB	NIST	Sound Level Meters and Calibrators
Dimensional	up to 24"	Source/Measure	Mitutoyo	0.5 µm	NIST	Calipers, Micrometers Thickness, Flatness, Height Gauges
Gas	Methane, Oxygen, Hydrogren Sulfide, Propane, R 507 (refrigerant), CO, CO2, Pentane, Nitrogen and others	Source	Norlab Calibration Gases	2%	NIST	CO/CO2 Meters, Safety Gas Detectors and Analyzers, Gas Transmitters
Particles	From 0.3um to 5um	Source/Measure	Particle Measuring Systems Universal Reference Unit	4.4%	ISO17025	Particle Counters, Microbial Air Samplers, Molecular Contamination Monitors
Flow	From 0 SCCM to 1000 SLM	Source/Measure	Fluke Molbox1+/Molbloc	0.2%	ISO17025	Gas Flow Meters, Thermal Mass Flow Meters and Controllers, Coriolis Flow Meters, Laminar Flow Elements, Rotameters, Turbine Flow Meters, Bubble Meters

Additional Services:

- 1.Repair/Troubleshooting/Testing
- 2.Authorized Fluke/Hart Scientific Service Center
- 3.On-site Service (ISO 17025 Calibration) Available
- 4.Equipment Commissioning
- 5.Training
- 6.Customized Solutions

- 7.Authorized Particle Measuring Systems Calibration Facility
- 8.Authorized KAYE Distributor
- 9.Conformity Assessment
- 10.Risk Analysis
- 11.Method Validation



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