

<u>Parameter</u>	<u>Range</u>	<u>Standard</u>
Acceleration - Linear	1 to 10 G's	Rate Table
Acceleration - Dynamic	1 to 10 G's, 30 Hz-900 Hz 1 to 10 G's, 900 Hz-10 kHz	Standard Accelerometers
Capacitance	1000 pF, 100 pF, 10 pF 0.00001 pF to 1µF, 1 kHz 0.00001 pF to 99999 µF, 12 Hz to 100 kHz	Standard Capacitors Precision Digital Capacitance Bridge Capacitance Bridge
Current-DC	100 nA to 500 A	Potentiometer and Precision Shunts
Current-AC	1 x 10 ⁻² to 20 A, 10 Hz to 10 kHz 10 to 100 A, 20 Hz to 20 kHz	Thermal Transfer Standard Precision Shunts Current Calibrator
Dimensional-Length	0 to 4 in. (0 to 10.16 cm) 4 in. or longer (10.16 cm or longer)	Gage Block Comparator Laser Measuring System Gage Block Sets (English and Metric)
Dimensional-Surface Flatness	Reference Optical Plane Range Surface Range	10 in Optical Flat Optical Flat Interferometer Laser Measuring System
Fiber Optic Attenuation	0-70 dB 850 & 1300 nm Up to 100 um Core	Fiber Optic Power Meter
Fiber Optic Power	850 & 1300 nm 100 uW Level Up to 100 um Core	Fiber Optic Power Meter
Fiber Optic Wavelength	600 to 1750 nm	Monochrometer
Flow-Gas	0 to 300 cfm (0 to 8.5 m ³ /min) 0 to 24000 cm ³ /min 0 to 60 cfm (0 to 1.7 m ³ /min) 0 to 500 cfm (0 to 14 m ³ /min)	Standard Flowmeters Volumetric Prover - Brooks Prover Bell Prover Mass Flow Meter
Flow-Liquid	0.4 to 400 GPM (1.5 to 1500 L/min) .001 to 1 GPM (3.8 x10 ⁻³ to 3.8 L/min)	Water Flow Calibrator
Flow-Linear	20 to 10000 ft/min (6 to 3050 m/min)	Wind Tunnel
Frequency	1, 5 & 10 MHz 1 GHz to 26 GHz	Cesium Beam Standard High Frequency Counter
Force	0 to 500 lbs (0 to 2224 Newtons) 500 to 20000 lbs (2.2 x 10 ³ N to 8.9 x 10 ⁴ N) 2000 to 110 K lbs (8.9 x 10 ³ N to 4.9 x 10 ⁵ N)	Class-S Mass Standard & Moorehouse Dead Weight Tester Hydraulic Force Cal Sub-System Proving Rings
Torque	0 to 1000 lbf (0 to 1355 N-m) 1 to 1500 lbf (1 to 2030 N-m) 0 to 2000 in lbs (0-225 N-m)	Torque Standard Torque Machines and Torque Transducers Torque Standard
Humidity-Absolute	-70 Deg C to +90 Deg C	Dew Point Generator
Humidity-Relative	0 to 90% RH	Humidity Standard
Inductance	1 x 10 ⁻⁴ to 10 H 1 x 10 ⁻⁴ to 1200 H @ 1 KHz	RCL Digibridge Standard Inductors
Optical Radiation Illuminance Luminance Total Irradiance Color Temperature	0.5 to 2130 ft cd (5 to 23 X10 ³ lm/m ²) 2 to 5000 ftL (6.8 to 17130 cd/m ²) 145 to 7238µW/cm ² 2365 K, 2854 K, 3000K	Standard Lamp Standard Lamp
Mass	1 lb, 1 kg 0 to 30 kg	Standard Weights Mass Comparators Weight Sets
Magnetics	100 to 10 K Gauss (0.01 to 1 T)	Standard Magnets

<u>Parameter</u>	<u>Range</u>	<u>Standard</u>
Standard Reference Materials		
Particle Sizes	.1 to 5 Microns 5 to 30 Microns	Microsheres Glass Beads
Viscosity	9.5 to 102,400 Centipoise (9.5 X10 ⁻³ to 102.4 N-s/m ²)	Viscosity Standards Solution
Gases:	100%	Bottles
Nitrogen	100%	Calibrating Gas
OxygenMethane	50% 25% 5% 2%	
Liquids:	2-10	pH Standards
Specific Gravity		
Buffer Solution pH	.001 to 2.11	Troemner Specific Gravity Balance
Phase	0 to 360 Deg (0 to 6.28 Rad) 1 KHz < 2 MHz	Phase Standard
Power	1 to 2000 Watts, DC to 400 Hz	Precision Voltage and Current Sources
Pressure-Static	0 to 15,000 PSI (0 to 103 MPa) 6 to 40,000 PSI (41 kPa to 276 MPa) 1 to 10,000 PSI	Dead Weight Tester Standard Gage Pressure Calibration System
Ratio-DC	1:1 to 1:1000	Divider, Resistive
Ratio-AC	1:1 to 1:1000	Ratio Transformers
Resistance	1.0 Ohm 10 K Ohms 1 x 10 ⁻⁵ to 10 MOhms 10 M to 1 x 10 ¹¹ Ohms	Thomas 1 Ohm Resistors Resistors Comparator, Direct Current Digital Teraohmmeter
RF-Voltage	0.5 mV to 7 V, 50 kHz to 1 GHz	Thermal Converter
RF-Attenuation	1 to 20 db, DC to 18 GHz 0 to 100 db, 2.5 MHz to 18 GHz	Coaxial Attenuators IF Substitution
RF-Power	.5 to 10 mW, 10 MHz to 18 GHz 10 to 30 W, 10 MHz to 18GHz	Thermistor Mount Power Sensor/Power Meter
Sound PressureLevel	90 to 140 db SPL (6.3 x10 ⁵ to 2 x10 ⁸ μPa re 20 μPa) 80 to 150 db SPL (2 x10 ⁵ to 6.3 x10 ⁸ μPa re 20 μPa)	1" Microphones Reciprocity Cal. 1" and 1/2" Standard Microphones
Temperature	Ref. -38.8344 Deg C Ref. 0.01 Deg C Ref. 29.7646 Deg C Ref. 231.928 Deg C Ref. 419.5276 Deg C -259 Deg to 1000 Deg C 800 Deg C to 2300 Deg C	Mercury Triple Point Cell Water Triple Point Cell Gallium Melting Point Cell Tin Freeze Point Cell Zinc Freeze Point Cell Platinum Resistance Thermometer Brightness Temperature Standard Lamps NIST
Voltage-DC	10 V 1 x 10 ⁻⁶ to 2 V 0.5 KV to 30 KV	10 V Standards Potentiometer Voltage Divider
Voltage-AC	10 mV to 1 KV, to 1 MHz	Thermal Transfer Standard
VSWR	10MHz to 18 GHz, 40 dB Return Loss	Network Analyzer
Vacuum	2x10 ⁻⁹ to 1 x10 ⁻³ Torr (2.7 x 10 ⁻⁷ Pa to 0.13 Pa) 1 x 10 ⁻⁵ to 1 Pa. 1 x 10 ⁻³ to 1000 Torr (0.13 Pa to 1.3 x10 ⁵ Pa)	Two Pressure System Spinning Rotor Gage Vacuum System
Oxygen Clean Pressure Cal	0 to 1000 PSI 1000 to 10,000 PSI	Pressure Calibration System Standard Gage
Oxygen Clean Gas Flow Cal	0 to 1000 SLPM	Laminar Flow Elements