

OHM-LABS AND RESISTANCE

- RESISTANCE STANDARDS
- PRECISION SHUNTS
- HIGH VOLTAGE DIVIDERS
- RESISTOR-BASED INSTRUMENTS
- ACCREDITED HIGH VOLTAGE CALIBRATION

Ohm-Labs is the only USA company to focus exclusively on resistance. Ohm-Labs manufactures standard resistors, precision current shunts and laboratory high voltage dividers.

Ohm-Labs' personnel have manufactured precision, wire wound resistors since the 1970's.

Based on recent advances in manufacturing and measurement technology, Ohm-Labs offers reference grade resistance standards spanning the range from 10^{-5} to 10^{13} ohms.

Ohm-Labs manufactures shunts for precision current measurement to 1000 A.

Ohm-Labs offers laboratory high voltage dividers to 150 kV.

Ohm-Labs is actively developing standards and instruments to improve dissemination of the ohm, including a Zero Ohm Standard, the SmartResistor (a transportable set of resistance standards with a built-in scanner, constant temperature bath and data maintenance software), and the world's first temperature stabilized precision current shunt, for improved accuracy in current measurement.

All standards are supplied with ISO17025 accredited calibration.

Ohm-Labs' sole mission is 'Excellence in Resistance.' We welcome any inquiries you may have concerning resistors.



Ohm-Labs' Products

- Resistance Standards
 - ◆ 23 °C standards 0.000 01Ω to 10 TΩ
 - ◆ 25 °C standards 0.000 1Ω to 10 MΩ
 - ◆ Zero Ohm Standard
 - ◆ Multiple resistance standards for ratio or secondary applications
 - ◆ SmartResistor – 'Lab in a box' automated resistance standard
- Precision Shunts
 - ◆ 0.1 A to 1000 A
 - ◆ Multiple Current Shunt – temperature stabilized for improved accuracy
- High Voltage Dividers
 - ◆ 0.01 % dc accuracy to 150 kV
- Wire-wound precision resistors
- Services:
 - ◆ Calibration of high voltage devices
 - ◆ Custom engineering and production of critical application resistors and measurement standards



Ohm-Labs has been accredited to ISO 17025 by A2LA, for the field of calibration, under the scope of Certificate 2481.01.



GUIDE TO OHM-LABS' MODELS

Reference Standards (25 °C)

2005	10 micro-ohm
2004	100 micro-ohm
2003	1 milliohm
2002	10 milliohm
2001	100 milliohm
2000	1 ohm (optimized for 1 amp)

200	1 ohm
201	10 ohm
202	100 ohm
203	1 K ohm
204	10 K ohm
205	100 K ohm
206	1 megohm
207	10 megohm

Bench Top Working Standards (23 °C)

1005	10 micro-ohm
1004	100 micro-ohm
1003	1 milliohm
1002	10 milliohm
1001	100 milliohm
1000	1 ohm (1 amp)

100-0 Zero ohm standard

100	1 ohm
101	10 ohm
102	100 ohm
103	1 K ohm
104	10 K ohm
105	100 K ohm
106	1 megohm
107	10 megohm

Guarded High Resistance Standards

106H	1 megohm
107H	10 megohm
108	100 megohm
109	1 gigaohm
110	10 gigaohm
111	100 gigaohm
112	1 teraohm
113	10 teraohm

Hamon-type Transfer Standards

301	Same as L&N 4321-B 10 Ω Hamon
303	Same as L&N 4321-B 10 Ω Hamon

Guarded Hamon-type Transfer Standards

306	1 M/step: 100 K – 1 M – 10 M
307	10 M/step: 1 M – 10 M – 100 M
308	100 M/step: 10 M – 100 M – 1 G
309	1 G/step: 100 M – 1 G – 10 G
310	10 G/step: 1 G – 10 G – 100 G
311	100 G/step: 10 G – 100 G – 1 T
312	1 T/step: 100 G – 1 T – 10 T

Precision Current Shunts

CS-0.1	0.1 A, 10 Ω, 1 V
CS-1	1 A, 1 Ω, 1 V
CS-10	10 A, 0.1 Ω, 1 V
CS-20	20.A, 0.05 Ω, 1 V
CS-50	50.A, 0.01 Ω, 0.5 V
CS-100	100.A, 0.001 Ω, 0.1 V
CS-200	200.A, 0.001 Ω, 0.2 V
CS-300	300.A, 0.000 1 Ω, 0.1 V
CS-500	500.A, 0.001 Ω, 0.5 V
CS-1000	1000.A, 0.000 01 Ω, 10 mV

High Voltage Dividers

HVA	Reference standard divider, to 150 kV
KV	Working standard divider, to 25 kV
KVVB	Compact divider, 10 kV

SmartResistor

Resistance 'Lab in a Box.' Includes (8) resistance standards, constant temperature bath, precision thermometer, low thermal scanner and resistance maintenance software.

Temperature Stabilized Resistance Standards

MCS	Multiple Current Shunt – highest accuracy
MHS	Multiple High Resistance Standard, 1 M to 1 T

Multiple Resistance Standards

Ratio or multiple bench top resistance standards for special applications.

Leeds & Northrup and Julie Research Labs

L&N and JRL instruments manufactured by special order, including bridges, calibrators and standards.

Calibration and Repair

ISO17025 Accredited Calibration
 NUPIC Approved nuclear qualification
 Repair service to shunts and resistance standards

