100-SERIES HIGH RESISTANCE STANDARDS

- *RESISTANCE FROM 1 MΩ TO 1 TΩ*
- *NEW: IMPROVED TCR & VCR*
- *BPO, TYPE N OR BNC CONNECTORS*
- *HIGH IMMUNITY FROM ENVIRONMENTAL EFFECTS*
- *FULLY GUARDED – FOR ANY RATIO ON ANY MEASUREMENT SYSTEM*

GUARDED STANDARDS – BPO OR TYPE N

Ohm-Labs is the leader in guarded high resistance standard manufacture, the first to manufacture this design commercially, with over 300 units delivered to labs worldwide.

The 100-series guarded high resistance standards are designed for laboratory or on-site calibration use. Their low coefficients of temperature allow them to be used in a variety of environments without loss of accuracy. Hermetically sealed construction provides immunity from changes in barometric pressure and relative humidity. They are not affected by moderate vibration or shock. Low reactance allows their use as DC or AC standards. All models are housed in a rugged, die-cast aluminum case.

Connection is via either male silver plated British Post Office (BPO) plugs, BNC or type N jacks (specify at time of order). The shields are for a guard circuit driven at measurement potential. Either terminal may be high. BPO to BNC adaptors are available.

The guards are internally connected by a high value resistor nominally equal to the standard. This provides balanced guard voltages for any type of measurement system at any ratio.

A 5-way insulated binding post for banana plugs or spade lugs is provided for grounding the case.

A 10 K (nominal, at 25 °C) thermistor is included to monitor the internal temperature of the standard. Connection is via standard 2 mm banana plugs.

Optional accessories include BPO to BNC adaptors (male or female), and BPO to BNC adaptor cables. Decade resistance values are standard; other values are available on request.

All models include ISO17025 accredited calibration at two voltages and temperature coefficient determination.

Model Number	Nominal Resistance	Initial Tolerance in ppm	Temperature Coefficient (less than)	Voltage Coefficient (less than)	6 month Stability	12 month Stability	Recom. Voltage
Smaller case size models							
106-H	1 Meg	5	1 ppm / °C	0.1 ppm / V	<3 ppm	<5 ppm	10
107-H	10 Meg	10	3	0.1	5	10	20
108	100 Meg	20	10	0.1	10	20	50
109	1 Gig	35	25	0.1	15	25	100
110	10 Gig	50	35	0.1	25	50	100
Larger case size models							
111	100 Gig	200	30	0.2	50	100	200
112	1 Tera	500	50	1	100	200	500
10 Teraohm and above models are pending a product redesign							

Notes:
Tolerance is at time of manufacture.
Temperature coefficient is at nominal 23 °C +/-5°C.
Voltage coefficient is at recommended –50 % / +100 %
Max V: 106 1 kV, 107 3 kV, 108-110 10 kV, 111-113: 15 kV

Physical:
106-110: 178 x 75 x 100 mm / 7” x 3” x 4”; 1.5 Kg / 3#
111-113: 228 x 125 x 125 mm / 9” x 5” x 5”; 2.5 Kg / 5#

Accessories available:
BPO female to BNC (M or F) adaptor
1 m cables: BPO F to BNC

ISO17025 accredited calibration included

Calibration A2LA ACCREDITED Cert # 2481.01

-LABS Excellence in Resistance

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