Excellence in Resistance

CS-Series Precision Current Shunts
Operating Instructions

General:

The CS-Series Precision Shunts are low resistance standards or shunts used primarily for the accurate measurement of current by the potentiometric method. They may also be used as comparison standards for resistance if the stated limit of accuracy is satisfactory.

The stated resistance is that between the potential terminals, when measured in a 4-wire method.

Construction:

The shunts consist of strip(s) of Evanohm, secured within an extruded aluminum housing. Bifilar construction provides close agreement between DC and AC measurement.

They are designed to provide ample contact with current carrying circuits, and to have radiating surfaces sufficient for operation in air at ordinary room temperature at rated current.

Three case styles correspond to power dissipation capabilities of 10, 25 and 50 watts.

Specifications:

Model	Resistance	Rated Amps	Volts at Rated	Physical	Accuracy
CS-0.1	10	0.1	1	165 x 127 x 50 (6.5” x 5” x 2”) 1 Kg / 2#	0.005%
CS-1	1	1	1		
CS-5	0.2	5	1		0.01%
CS-10	0.1	10	1		
25 Watt Models					
CS-20	0.05	20	1	251 x 153 x 45 (9.875” x 6” x 1.75”) 2 Kg / 4#	0.01%
CS-50	0.01	50	0.5		
50 Watt Models					
CS-100	0.001	100	0.1	251 x 305 x 75 (9.875” x 12” x 3”) 2.5 Kg / 5#	0.01%
CS-200	0.001	200	0.2		0.02%
CS-300	0.000 1	300	0.03		0.03%

Precautions:

Connect shunt in series with the load, on the ‘ground’ or ‘low’ side of the line, especially if hazardous voltages may be in use.

Insure that all connections are secure before applying current. Insure that no current is flowing prior to connecting or disconnecting.

Connections:

These shunts must always be used as four-terminal resistors. The current circuit is connected to the heavy binding posts and potential measurement to the smaller posts.

Measurement:

Measure potential and determine applied current with Ohm’s Law: Current = Voltage/Resistance.

Service & Warrantee:

No service is needed. Re-calibration should be performed periodically to verify performance. Please contact Ohm-Labs, Inc. for support for this product. This shunt is warranted for five years from date of shipment (see our website for details).

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