

Standard Resistor



9409

Air Cooled DC Shunt



9410

DESCRIPTION

"VAISESHIKA" DC Standard Resistor Type : 9409 has been designed and fabricated to meet the precision calibration requirements. These Standard Resistors can serve the purpose of Precision Resistance Calibration Standards for comparison.

To ensure stringent accuracy, high degree of stability and utmost reliability, the specially selected alloy having low temperature coefficient have been used to construct standard resistors. These standards incorporate the manganin coils which have been subjected to prolonged ageing and heat treatment, to improve stability and to reduce temperature coefficient. Joints are silver soldered with copper being used for connection to terminals. Resistance element is sealed in aluminium container having moisture free oil.

For most accurate work the recommended wattage dissipation is 10 milli watts but upto 1 watt may be dissipated without harm to element.

FEATURES

- Well-aged, heat-treated and insulated manganin strips
- High accuracy of resistance between 0.05% to ±1% (depending upon the value of current
- Air-cooled self-regulating shunts

DESCRIPTION

"VAISESHIKA" Air-Cooled DC Shunt Type 9410 covers a wide range of current from 1.5 ampere to 2000 amperes. The Shunts are constructed from high grade manganin. The manganin strips are mounted on all the current terminals with the help of high quality silver brazing solder wire. The entire DC Shunt is mounted on a strong base and whenever required is fitted with a protecting cover to enable convection currents to keep the DC Shunt cooled to the ambient temperature.

TECHNICAL SPECIFICATION

- Recommended Power Dissipation : 10.0 milli watts
- Dimensions (Container) : 150 mm (h) x 115 mm (dia)
- Weight (with oil) : 1.5 Kg.
- Element : Strain free, Manganin coil/strip immersed in oil
- Container : Light weight aluminium construction
- Terminals (Current & Potential) : Brass

Type	Resistance (in ohms)	Max. Current (in amps)	Recommended Current (in amps)	Max. Power Dissipation (in watts)	Accuracy
9409	0.0001	1000	100	1.0	± 0.5%
9409 A	0.001	31.6	3.16	1.0	± 0.1%
9409 B	0.01	10.0	1.0	1.0	± 0.05%
9409 C	0.1	3.16	0.316	1.0	± 0.02%
9409 D	1.0	1.0	0.1	1.0	± 0.01%
9409 E	10.0	0.316	0.0316	1.0	± 0.01%
9409 F	100.0	0.1	0.01	1.0	± 0.01%
9409 G	1 K	0.0316	0.0031	1.0	± 0.01%
9409 H	10 K	0.01	0.001	1.0	± 0.01 %
9409 I	100 K	0.0031	0.0003	1.0	± 0.05%
9409 J	1 M	0.001	0.0001	1.0	± 0.1%
9409 K	10M	0.0003	0.00003	1.0	± 0.5%
9409 L	100 M	0.0001	0.00001	1.0	± 1.0%
9409 M	1000 M	0.00003	0.000003	1.0	± 2.0%
9409 N	10000 M	0.00001	0.000001	1.0	± 5.0%

TECHNICAL SPECIFICATION

Current (amperes)	Resistance (ohms)	Volt Drop (volts)	Wattage (watts)	Accuracy
1.5	1.0	1.5	2.25	± 0.05%
5	0.2	1.0	5.0	± 0.05%
15	0.1	1.5	22.5	± 0.05%
15	0.01	0.15	2.25	± 0.05%
50	0.01	0.5	25.0	± 0.05%
50	0.02	1.0	50.0	± 0.05%
75	0.002	0.15	11.0	± 0.05%
150	0.01	1.5	225.0	± 0.5%
150	0.001	0.15	22.5	± 0.5%
300	0.001	0.3	90.0	± 0.5%
500	0.0002	0.10	50.0	± 0.5%
750	0.0002	0.15	112.5	± 1.0%
1000	0.0001	0.1	100.0	± 1.0%
1500	0.0001	0.15	225.0	± 1.0%
2000	0.00005	0.1	200.0	± 1.0%

Note :
Vaiseshika undertakes manufacturing of Standard Resistors & DC Shunts with specific values other than standard values