

Primary Standard Resistor

FEATURES

- Excellent long-term stability of resistance, less than 3 ppm/year
- Low temperature coefficient, less than 0.2 ppm/°C
- The resistance value may be specified from 1Ω to 10 MΩ
- Excellent AC characteristics due to non-wirewound technology
- Compact and sturdy construction designed for easy operation and storage
- Certificate of Calibration and Inspection sheets traceable to NMIJ* are provided at shipment.
*NMIJ: National Metrology Institute of Japan



MASS

Approx. 2.5 kg (5.5 lbs)

DESCRIPTION

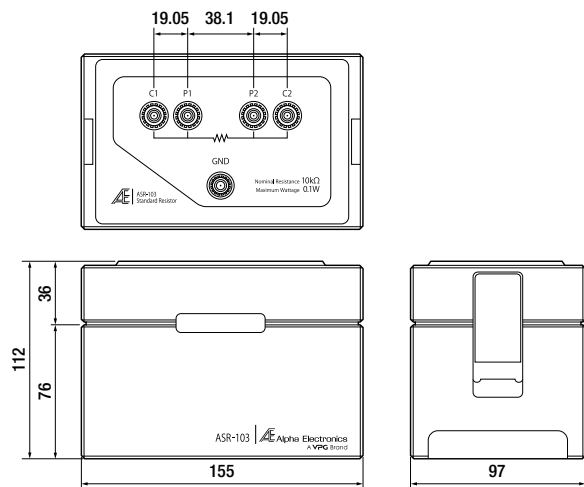
The ASR series is an extremely stable standard resistor. Alpha's Ni/Cr alloy Bulk Metal® Foil technology is used as the resistive element, providing high stability and low temperature coefficient. The process of building a standard resistor requires significant experience and a great degree of skill. Due to our long-term experience in developing and enhancing ultra stable Bulk Metal® Foil technology, we are able to provide products with consistency of performance under strict quality control.

With the extreme stability of this resistor relative to temperature change, the ASR can be used in air without oil bath or critical environmental temperature control eliminating added expense and maintenance problems.

The ASR is designed to be used in a broad range of environments—from a production floor for making precise measurements, to a corporate traceability system as a calibration and reference standard.

The resistors are mounted in a compact sturdy box with cover whose construction is designed to protect the resistor and terminals from any damages.

CONFIGURATION in millimeters



SPECIFICATIONS

| Series | Nominal Value | Accuracy | Uncertainty of Calibration | Temp. Coefficient | Temp. Retrace | Stability | Power Rating | Power Coefficient | Max. Working Temp. | Max. Working Current | Max. Working Voltage | Operating Temp. Range | Storage Temp. Range | Number of Terminals |
|---------|---------------|----------|----------------------------|--------------------------|--|-----------|--------------|-------------------|--------------------|----------------------|----------------------|-----------------------|---------------------|---------------------|
| | | | | | | | | | | | | | | |
| ASR-1R0 | 1Ω | ±5 | ±2.5 @ 23°C | ±0.2 @ 0~23°C 23~50°C | ±2 @ 23~0°C ~23°C 23~50°C ~23°C | ±3 | 0.5 | ±5 | 50 | 707 | 0.70 | 0~50 | -10~60 | 5 |
| ASR-100 | 10Ω | | | | | | 100 | 1.00 | | | | | | |
| ASR-101 | 100Ω | | | | | | 31.6 | 3.16 | | | | | | |
| ASR-102 | 1kΩ | | | | | | 10.0 | 10.0 | | | | | | |
| ASR-103 | 10kΩ | | | | | | 3.16 | 31.6 | | | | | | |
| ASR-104 | 100kΩ | | | | | | 1.00 | 100 | | | | | | |
| ASR-105 | 1MΩ | | | | | | 0.31 | 316 | | | | | | |
| ASR-106 | 10MΩ | ±10 | ±5 | ±0.5 | ±6 | ±3 | 0.10 | 1000 | 3 | | | | | |

* Power=Power rating

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