

2575A Precision AC/DC Active Current Shunt

Dual-Purpose Versatility and Calibration Essential

The 2575A Precision AC-DC Active Current Shunt plays multiple roles in metrology labs worldwide; acting as both a current standard for measurement and resistance bank for low-level calibration requirements. In current measurement mode, the 2575A offers six independent switch-selectable ranges from 2mA full scale to 100A. As a resistance standard, it offers four-terminal resistors from .001 to 100 ohms. Additionally features include a built-in gain 10.000 precision buffer amplifier, special designed non-inductive resistance elements ensuring a flat frequency response throughout the bandwidth of the instrument, and fan-cooled shunt for maximum thermal stability.

Range	Shunt Value	Frequency Response	Accuracy (% of Range)			Temperature Coefficient
			DC	AC $f < 1\text{kHz}$	AC $f \geq 1\text{kHz}$	
100A	0.001 Ω	DC to 1kHz	$\pm 0.05\%$	$\pm 0.1\%$	$\pm 0.5\%$	$< 0.001\%/^{\circ}\text{C}$
20A	0.01 Ω	DC to 10kHz	$\pm 0.02\%$	$\pm 0.1\%$	$\pm 0.5\%$	$< 0.001\%/^{\circ}\text{C}$
2A	0.1 Ω	DC to 10kHz	$\pm 0.02\%$	$\pm 0.1\%$	$\pm 0.5\%$	$< 0.001\%/^{\circ}\text{C}$
200mA	1 Ω	DC to 10kHz	$\pm 0.01\%$	$\pm 0.1\%$	$\pm 0.5\%$	$< 0.001\%/^{\circ}\text{C}$
20mA	10 Ω	DC to 10kHz	$\pm 0.01\%$	$\pm 0.1\%$	$\pm 0.5\%$	$< 0.001\%/^{\circ}\text{C}$
2mA	100 Ω	DC to 10kHz	$\pm 0.01\%$	$\pm 0.1\%$	$\pm 0.5\%$	$< 0.001\%/^{\circ}\text{C}$



- Six Independent Selectable Current Ranges
- Fan-Cooled Shunt for Thermal Stability
- N.I.S.T Traceable Calibration
- Compatible with Current Transformers
- AC/DC Current Calibrator
- Lab Standard Resistance Bank
- Built-In Chopper Stabilizer Amplifier
- Working Calibration Standard

Amplifier Characteristics

Amplifier Gain: 10.000
 Gain Accuracy: $\pm 0.01\% \pm 10\mu\text{V RTI @ DC}$
 Frequency Response: $\pm 0.05\%$ to 10kHz
 Input Resistance: $>1010\Omega$
 Output Resistance: $<0.1\Omega$

Power

Power Requirements: 110VAC/240VAC 50 to 60Hz
 12 Watts. Switching Power Supply.

Temperature

Operating Temp. Range: 0°C to 50°C
 Storage Temp. Range: -30°C to 70°C
 Humidity: 70% RH max @ 40°C (non-condensing)

Physical Specifications

Width: 17in / 43cm
 Depth: 10in / 25cm
 Height: 3.5in / 9cm
 Weight: 8lbs / 3.6kg



What's Wrong with Using DC Resistors to Certify AC Current?
 Plenty! Most lab standard resistors are designed to permit close trimming to a nominal DC value. These DC resistors contain inductive components which can result in significant AC voltage error at low resistance values.