

# 2555A Current Calibrator & AC/DC Transconductance Amplifier

## Rock Solid Reliability & Unmatched Performance

The Model 2555A is the world's leading AC-DC current calibrator, earning its stripes through years of rock-solid reliability and unmatched performance. As a wide-range voltage-to-current converter with 100-amp max output, satisfied customers range from defense industrial manufacturers and branches of the government through the National Institute of Standards and Technology and a variety of other metrology labs. Our proprietary internal shunt design (with low TC 2ppm/°C) allows the unit to provide up to 400 watts (i.e. 7 volts at 55 amps) in constant current output with voltage compliance monitored via an internal voltmeter. For calibration of ammeters, current transformers, and shunts the unit is compatible with our C-1000 10-Turn Coil for simulation up to 1000 amps.

### General Specifications

<b>Input Impedance:</b>	100kΩ	<b>Power Requirements:</b>	115VAC/230VAC ±10% at 50 to 60Hz
<b>Compliance Voltage:</b>	7VDC or 7Vac (RMS) to 60A 4VDC or 4Vac (RMS) to 100A	<b>Temp. Coefficient:</b>	±0.001% of output ±0.002% of rng/ double for AC
<b>Input/Output Ratio:</b>	2.00000V input provides full-scale output (1.0000V input produces 100.00A output)	<b>Operating Temp. Range:</b>	0°C to 50°C
<b>Stability:</b>	+0.0005% -15min. (±0.005% for 24Hr)	<b>Storage Temp. Range:</b>	-30°C to 70°C
<b>Load Regulation:</b>	Output current level changes less than ±0.002%	<b>Humidity:</b>	70% RH max @ 40°C (non-condensing)
<b>Maximum Input:</b>	3VDC or 2Vac (RMS)	<b>Length:</b>	27 cm / 10.5 in
<b>Maximum Isolation Voltage:</b>	±200VDC or peak AC	<b>Width:</b>	44 cm / 17 in
<b>Response Time:</b>	1msec to ±0.01% of final value following input amplitude or frequency change	<b>Height:</b>	59 cm / 23 in
<b>Input CMR:</b>	60dB @ DC linearity decreasing to 40dB @ max frequency	<b>Weight:</b>	100 lbs / 45 kg



- Precision AC/DC Transconductance Amplifier
- Programmable AC/DC 100A Current Source
- Maximum Output Current 100A DC or RMS AC
- Highly Accurate
- Ultra-Low Noise
- Ultra-Stable
- Excellent Response Time
- High CMR
- Load Regulation: Output current  $\Delta < \pm .002\%$
- Dynamic Range: 0 to 100% of range up to maximum rated output (100A max.)

Range	DC Accuracy	AC Accuracy		
		100Hz	400Hz	1000Hz
100A	± 0.03% of range ± 0.03% of output	± 0.3% of range ± 0.1% of output	± 0.4% of range ± 0.2% of output	± 0.6% of range ± 0.3% of output
20A	± 0.015% of range ± 0.03% of output	± 0.15% of range ± 0.1% of output	± 0.2% of range ± 0.2% of output	± 0.3% of range ± 0.3% of output
2A	± 0.015% of range ± 0.03% of output	± 0.15% of range ± 0.1% of output	± 0.2% of range ± 0.2% of output	± 0.3% of range ± 0.3% of output
200mA	± 0.015% of range ± 0.03% of output	± 0.15% of range ± 0.1% of output	± 0.2% of range ± 0.2% of output	± 0.3% of range ± 0.3% of output
20mA	± 0.015% of range ± 0.03% of output	± 0.15% of range ± 0.1% of output	± 0.2% of range ± 0.2% of output	± 0.3% of range ± 0.3% of output
2mA	± 0.015% of range ± 0.03% of output	± 0.15% of range ± 0.1% of output	± 0.2% of range ± 0.2% of output	± 0.3% of range ± 0.3% of output