

VALHALLA SCIENTIFIC – MODEL 2555A

PRECISION AC-DC 100A CURRENT CALIBRATOR

TRANSCONDUCTANCE AMPLIFIER

The Standard of the Industry

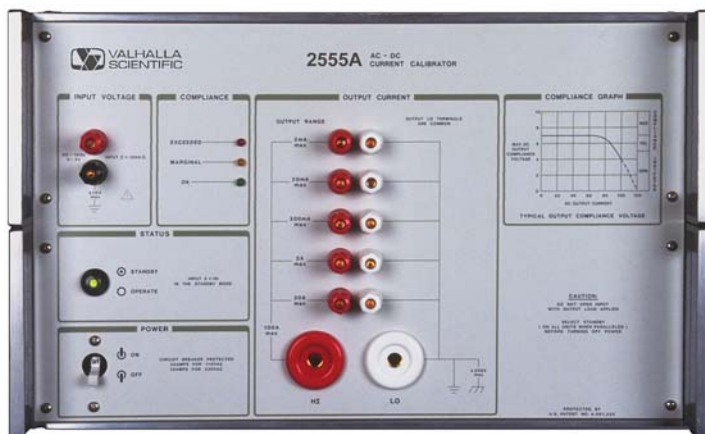
The 2555A is the world's leading AC-DC current calibrator for one big reason. It's earned that position through years of rock solid reliability and unmatched performance. Our satisfied and discriminating customers include the U.S. Army, Navy, Air Force and the National Institute of Standards and Technology, as well as an impressive list of hundreds of other proud 2555A owners around the world that reads like the Who's Who of metrology. Valhalla's proprietary internal shunt design with low TC (2ppm/°C) is just one of the technologies which provide the 2555A with rock solid constant AC or DC current.

400 Watts Output Drive Capability

The Valhalla 2555A supplies 400 watts (i.e. 7 volts at 55 amps) in output compliance capability to drive heavy burden loads and still deliver constant current. The output compliance is monitored by the unit's internal voltmeter. Compliance voltage **status is displayed with a green L.E.D. indicator for "OK"** or within compliance, a yellow L.E.D. for "marginal" compliance, and a red L.E.D. for compliance "exceeded"

Features:

- Up to 20 Amps/phase direct (self contained shunt 0.1%)
- Precision AC/DC Transconductance Amplifier
- Programmable AC~DC 100Amp Current Calibrator/Current Source
- Calibration Traceable to NIST
- 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.)



indication. To insure that compliance voltage is available to the load (and not just the leads), Valhalla offers two heavy duty six foot 100 amp cable sets. The "HMF" set is terminated in 2" opening, 500 amp rated, injection molded clamps, while the "HC" lead set is terminated in #4 copper ring lugs. The **higher accuracy** Valhalla 2575A AC-DC Active Current Shunt may be used to calibrate or verify the output from the 2555A. Refer to the 2575A data sheet for more detailed information.



Valhalla Scientific, Inc.

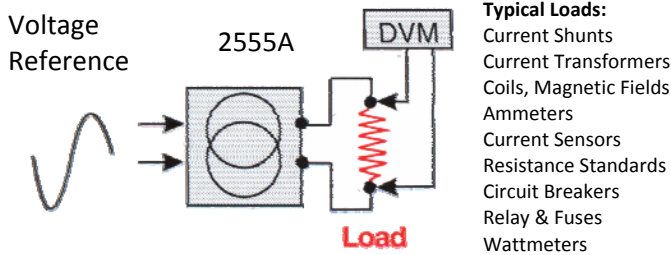
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MODEL 2555A

PRECISION AC-DC CURRENT CALIBRATOR

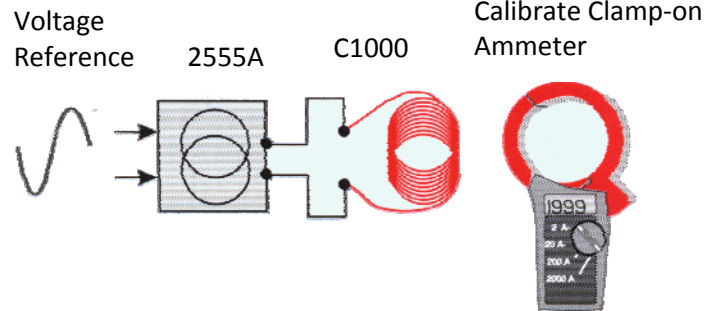


Provides a Variety of Test Capabilities



- Typical Loads:**
- Current Shunts
 - Current Transformers
 - Coils, Magnetic Fields
 - Ammeters
 - Current Sensors
 - Resistance Standards
 - Circuit Breakers
 - Relay & Fuses
 - Wattmeters

Drive a 10 turn Coil – Simulate 1000 Amps



Current Calibrator Useful For Many Tasks

The Valhalla 2555A is the workhorse in the metrology lab for the calibration of Current shunts, ammeters, clamp-on meters, Current transformers, and even low value resistance standards. The metrology lab isn't the only place a Valhalla 2555A comes in useful. Production departments and Q.C. test areas using the Valhalla 2555A can also benefit. Many companies improve their product reliability by using the 2555A for the screening of fuses, relays, circuit breakers, and a multitude of current sensor incorporated devices.

Calibrate Clamp-on Meters - Option "C1000"

Valhalla offers the option "C1000" along with the Valhalla 2555A, to make the calibration of clamp-on ammeters, current transformers, and a variety of current sensor (magnetic field based) devices a simple task. The basic principle involves the 2555A driving 100 amps per turn into a 10 turn coil. The Valhalla 2555A Current Calibrator can easily drive the ten turn option "C1000" and simulate 1000 amps. By placing the clamp-on ammeter around and thru the windings of the "C1000" the clamp-on meter under test can be verified for accuracy, and frequency response.

Specifications

Range	DC Accuracy	AC Accuracy		
		100Hz	400Hz	1000Hz
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
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
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
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
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
100A	±0.03% 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

- Input Impedance:**..... 100kΩ
- Compliance Voltage:**..... 7VDC or 7Vac (RMS) to 60A
.....4VDC or 4Vac (RMS) to 100A
- Input/Output Ratio:** 2.00000V input provides full-scale output (1.0000V input produces 100.00A output)
- Stability:**.....+0.0005% -15 min.(±0.005% for 24 Hours)
- Load Regulation:** Output current level changes less than ±0.002%
- Maximum Input:**..... 3VDC or 2Vac (RMS)
- Maximum Isolation Voltage:**..... ±200VDC or peak AC

- Response Time:** 1msec to ±0.01% of final value following input amplitude or frequency change
- Input Common Mode Rejection:** 60dB @ DC linearly decreasing to 40dB @ max frequency
- Temp. Coefficient:** ±0.001% of output ±0.002% of rng/°C below 20°C or above 30°C: double the above for AC
- Power:**..... 115/230Vac ± 10% 50-60Hz
- Size:**..... 266mm/10.5" L x 432mm/17" W x 584mm/23" D
- Weight:**..... 45Kg/100Lbs. Net, 66Kg/140Lbs. shipping

Accessories

HMF	100Amp Cable Set (Jaws Terminated)	C1000	Ten Turn Coil Loop (C.T. Type)
HC	100Amp Cable Set (Spade Lugs)	R3	Rack Mount Adapter