

**SERIES 7320**  
**AC CURRENT SHUNTS**

*A COST EFFECTIVE PRECISION AC CURRENT CALIBRATION STANDARD*



**G**uildline 7320 series of four terminal AC Current Shunts feature low uncertainty (high accuracy), low temperature coefficients, and excellent stability. The shunts are designed to be purely resistive with extremely small values of reactance. The shunts may be used over a wide frequency range from DC to 100 kHz.

The shunts will operate at power levels up to 10 watts, or as limited by a maximum of 25 amperes, or 300 volts. They are specified for use with natural convection cooling, but the performance can be improved by using forced air cooling.

Originally made to verify the performance of the Guildline 7620 Transconductance Amplifier, the AC Current Shunts can be used for a variety of other applications.

They are useful for the calibration of ac current ranges of multi-function calibrators and high accuracy DVM's.

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**7320 FEATURES**

- > Accuracy to  $\pm 100$  ppm
- > Four terminal design
- > Non-inductive
- > Wide bandwidth, DC-100 kHz
- > 1 Year stability <200 ppm
- > Temp. Coeff. <10 ppm/ $^{\circ}$ C
- > Range: decades 10m  $\Omega$  to 10k  $\Omega$

The accurate measurement of ac current up to 25 amperes and at frequencies up to 100 kHz is possible using the 7320 shunts and an accurate ac voltmeter. The lower value shunts (below 10  $\Omega$ ), may also be used as burdens for current transformers, making the measurement of high currents possible. The shunts can be placed in ac current circuits where the phase relationships between currents or voltages is desired.

These shunts are also valuable when making ac power and energy measurements using wattmeters or watt-hour meters. The very small phase shift due to the shunts makes accurate high-frequency power measurements possible. As a result of the very small phase shift across the shunts, the output voltage of the shunts faithfully reproduces the current waveform even under badly distorted or pulsed current conditions. This makes the shunts useful when examining complex and distorted current waveforms. Additionally, the shunts are effective in many other classical measurement, standards, or calibration laboratory applications.

There are two UHF Type connectors. The connector on the back face of the shunt is for connection to the current source to be measured. The connector on the front face is for connection to the potential measuring device.

