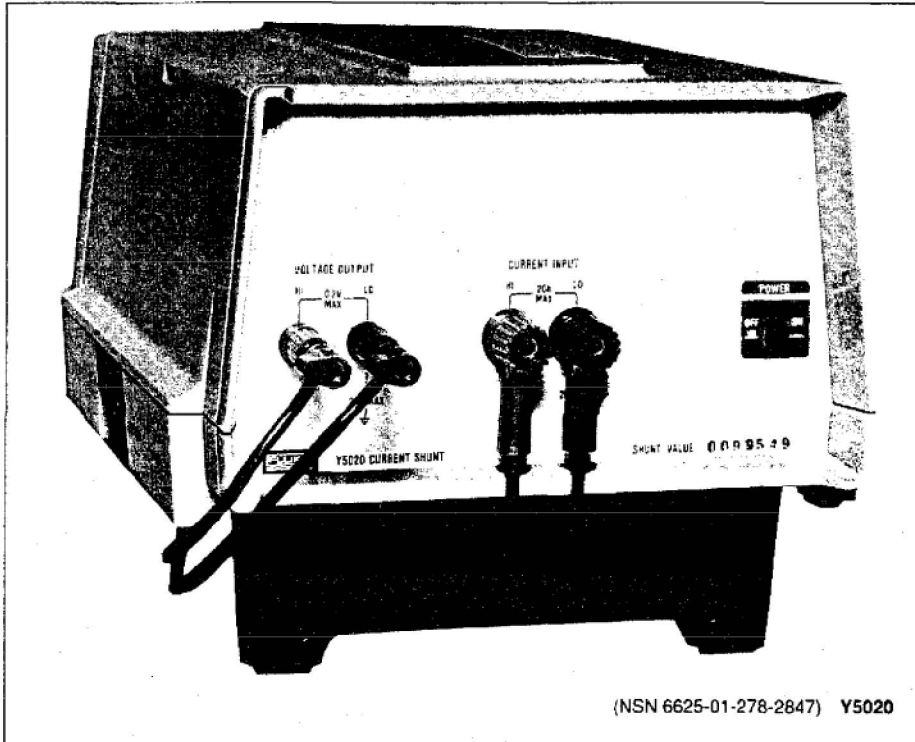


Calibration Instruments

Y5020



Nominal Resistance: $0.01\Omega \pm 1\%$
Uncertainty:* Direct current, ± 100 ppm; alternating current, $\pm(150 \text{ ppm} + 120 \text{ ppm} \times \text{frequency in kHz})$ relative to direct current specification
Stability: Less than 20 ppm resistance change in six months
Maximum Current: 20A direct current or rms alternating current
Burden Voltage: Less than 250 mV at 20A
Temperature Coefficient: Less than 20 ppm/ $^{\circ}\text{C}$; 0°C to 18°C and 28°C to 50°C
Power Coefficient: Less than 12 ppm per watt
Operating Temperature: 0°C to 50°C ambient
Storage Temperature: -40°C to 70°C
Input Power:** 115V or 230V ac $\pm 10\%$, 11W
Size: 12.7 cm H x 20.5 cm W x 3.6 cm D (5.0 in H x 8.0 in W x 12.9 in D)

*Referenced to the certified absolute value of shunt resistance stamped on the front panel

**For cooling fan. Specify 115V or 230V when ordering.

Y5020 AC or DC Current Shunt

Rated to 20A dc to 5 kHz

100 ppm uncertainty

10 milliohms nominal resistance

Less than 250 mV burden

The Y5020 Current Shunt is a very stable, non-inductive, four-terminal resistive current shunt. It may be used to verify the accuracy of the 5220A Transconductance Amplifier or other current calibrators. It is an inexpensive method of accurately measuring current up to 20A, from dc to 5 kHz. The 0.01Ω nominal resistance creates less than 250 mV burden. A forced-air cooling fan stabilizes internal ambient temperature during use.

Specifications

The following specifications apply for one year, provided the Y5020 is operated with its cooling fan in ambient temperatures from 18°C to 28°C . Voltage terminals must be connected to a measurement circuit with an input resistance of $1 \text{ M}\Omega$ or greater and a capacitance of 500 pf or less.