



(NSN 6625-01-278-2847) Y5020

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 MΩ or greater and a capacitance of 500 pf or less.

Nominal Resistance: 0.01Ω ±1%

Uncertainty:* Direct current, ±100 ppm; alternating current, ±(150 ppm + 120 ppm x 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/°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 ±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 1.2 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.

Ordering Information

Model

Y5020* Current Shunt

*Specify supply voltage (e.g., Y5020-115 or Y5020-230)

Included with Instrument

One-year product warranty, cord set and Instruction manual.

Manual

Y5020 Instruction*

*No charge with purchase of unit

Customer Support Services

Also see Section 20.

Factory Warranty

One-year product warranty.