



1394A

Products Available Voltage and Frequency Ranges

Model	Usable Voltage Range	Frequency Range
1394A-0.25	0.1 to 0.25V	5 Hz to 30 MHz
1394A-0.5	.16 to .67 V	dc, 10Hz to 100 MHz
1394A-1	.32 to 1.33 V	dc, 10Hz to 100 MHz
1394A-2	.63 to 2.66 V	dc, 10Hz to 100 MHz
1394A-3	.95 to 3.99 V	dc, 10Hz to 100 MHz
1394A-5	1.58 to 6.65 V	dc, 10Hz to 100 MHz
1394A-10	3.16 to 13.3 V	dc, 10Hz to 100 MHz
1394A-20	6.32 to 26.6 V	dc, 10Hz to 100 MHz
1394A-50	16 to 66.5 V	dc, 10Hz to 30 MHz

Replacement Thermal Elements Thermal Elements for Ballantine TVC's

BLI P/N	Application
27-07946-1	5 mA .04% Reversal Error, used in 1394 and 1395, and 1396 Option -10 for 1394, 1395 and 1396 TVC's
27-10000-1	5 mA .005% Reversal Error

Input Impedance
200 Ω per nominal Volt.

Input Capacitance
5 pF nominal.

Calibration Uncertainty
Frequency response is calibrated with a standard converter traceable to NIST. Voltages are measured at a point equivalent to the center of a Type 874 Tee connected to the converter.

Frequency	Uncertainty of Correction Factor	Ref. Standard Uncertainty*
10 Hz to 20 Hz	± 0.0160%	± 0.013%
20 Hz to 20 kHz	± 0.0025%	± 0.0017%
20 kHz to 50 kHz	± 0.0040%	± 0.003%
50 kHz to 100 kHz	± 0.0065%	± 0.005%
100 kHz to 1 MHz	± 0.0095%	± 0.008%
1 MHz to 10 MHz	± 0.1%	± 0.1%
10 MHz to 30 MHz	± 0.2%	± 0.2%
30 MHz to 100 MHz	± 1.0%	± 1%

*Refers to combined uncertainties of NIST and Ballantine standards. Measurements Reference 23 °C ± 1 °C.

Thermoelement
Nominal Heater Current: 5 mA rms,
Max. Heater Current: 7.5 mA rms
Couple Output: 7 mV ± 12% at nominal heater current.
Couple Resistance: 8 W ± 20%.
Maximum DC Reversal Error: ± 0.04%
Couple Output Voltage to Heater (ground): ± 50 V (dc + ac pk-pk) max.

Connectors
Signal Input: Type "N" or GR874PB
Couple Output: 3-pin male MS3102A-10SL-3P

Environmental
Operating Temperature: 4 °C to 40 °C, Operating Humidity: 0 to 90% RH, Operating Altitude: Sea level to 10,000 ft

Size & Weight
Dimensions: 5.08 cm (2") diam. x 11.8 cm (4-5/8") long, exclusive of connectors. Weight: 1.4 kg (3 lbs 1 oz)

Options
-10: ±0.005% DC Reversal Error Thermal Element
-11: 2 Pin Output Connector