



1395B Thermal Voltage Converter



Product Description

The 1395B TVC. Has better thermal stability than it's predecessor. Measuring ac voltages between 20 Hz and 100 MHz with increased accuracy and reliability. The 1395B can be used as a primary ac voltage standard and/or standard for the calibration of ac calibrators and voltmeters.

Voltage and Frequency Ranges

Model Number	Type	Impedance	Voltage Range
1395B-0.4	Unbalanced	50 Ω	0.1 - 0.59 V
1395B-1	Unbalanced	50 Ω	0.25 - 1.30 V
1395B-3	Unbalanced	50 Ω	0.75 - 3.90 V
1395B-6	Unbalanced	50 Ω	1.50 - 7.80V
1395B-1M75	Unbalanced	75 Ω	0.25 - 1.30 V
1395B-1M93	Unbalanced	93 Ω	0.25 - 1.30 V
1395B-1M135	Balanced	135 Ω	0.25 - 1.30 V
1395B-1M150	Balanced	150 Ω	0.25 - 1.30 V
1395B-3M600	Balanced	600 Ω	0.75 - 3.90 V

Calibration Uncertainty

Frequency Range	Uncertainty of Correction Factor*	Reference Standard Uncertainty
20 Hz to 20k Hz	± 0.002%	± 0.0015%
20k Hz to 50k Hz	± 0.004%	± 0.0025%
50k Hz to 1M Hz	± 0.01%	± 0.0070%
1M Hz to 10M Hz	± 0.11%	± 0.1%
10M Hz to 30M Hz	± 0.21%	± 0.20%
30M Hz to 50M Hz	± 1.01%	± 1.0%
50M Hz to 100M Hz	± 1.01%	± 1.0%

* refers to combined uncertainty of NIST and Ballantine Standards

Input Impedance

- 50 ohms ± 0.3% to 12MHz
- 75 ohms ± 0.3% to 10MHz
- 93 ohms ± 0.5% to 10MHz
- 135 ohms ± 2% to 10MHz
- 150 ohms ± 3% to 10MHz
- 600 ohms ± 5% to 10MHz

Thermoelement

- Couple Output: 7mV ± 12 %
- Couple Resistance: less than 10 ohms.
- Maximum DC Reversal Error: ±0.04% standard; ±0.005% optional.
- Couple Output Voltage to Heater (ground): ± 50V (dc+ ac pk-pk) max.

Connectors

- Signal Input
- Unbalanced type: one BNC male
- Balanced type: two BNC female
- Couple Output: 3-pin male MS3102A-10SL-3P

Mechanical Specifications

- New heavy die cast enclosure provides increased stability and better thermal lagging.
- Dimensions: 1.38" H x 2.52" L x 2.28" W
- Weight: 5.9 oz.

Options

- 08: Additional test points at 30 and 50 MHz
- 09: Additional test points at 30, 50, 70 and 100 MHz
- 10: +/- 0.005% DC reversal error

Kits

- 1395B-M103: 4 TVC's, 1395B-.04, 1395B-1, 1395B-3, and 1395B-6 all with option -09, low noise cable and case
- 1395B-K01: 5 TVC's, 1395B-1, 1395B-1M75, 1395B-1M135, 1395B-1M150, 1395B-3M600, with Case

Accessories

- 12257A Low Noise Cable with 3 Pin MS Connector to Open End
- 12258 Low Noise Cable: 3 Pin MS to Male Banana