Measurements International

Metrology is Our Science, Accuracy is Our Business™

8000C 10 V BINARY VOLTAGE DIVIDER

Developed & designed by metrologists for metrologists & calibration technicians

Featuring

- 20-Channel Scanner
- Bipolar Voltage Measurements
- Best Accuracy < 0.05 uV/V
- Linearity < 0.02 uV/V
- Standard Cell Protection
- Voltage Maintenance Programs
- Range of 1200 Volts
- Calibration of Fluke 57XX
- Linearity Calibration of DMM's
- Bipolar Voltage Measurements
- Traceability to 10 V Zener Reference

Overview

The Model 8000C is a highly versatile, accurate, self-balancing instrument that meets laboratory requirements for scaling between 10 Volt references or any voltage between 1 mV to 10 Volts. Automatic self-calibration ensures ratios to nine significant digits with linearity deviations of less than 0.02 uV/V. The model 8000C has a 20-channel "built-in" scanner addressed individually via the Windows operating software for performing automatic measurements. Both hardware and software standard cell protection circuits are built-in.

Feature	Benefit
Automated self-calibration.	Does not require sending out for calibration.
Bi-polar voltage measurements.	Allows for automatic + and – voltage measurements against +10 V Reference.
Built-in 20-channel scanner.	Allows for automation of multiple UUT's without connection changes to minimize thermal effects.
Standard cell protection.	Protects references against accidentally shorting or loading.
Voltage maintenance.	Ideally suited to calibrate and intercompare 10 V Zener references.
Low uncertainties.	0.05 uV/V for 10 V vs. 10 V measurements.

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Specifications: Rev 0

Automatic Self-Calibration	Completely Self-Checking	
Range	1 mV to 10 V (Single Continuous)	
Accuracy *k*=2 * We have attempted to include all reasonable considerations for our uncertainty budgets but your uncertainity budgets should be re-assessed considering your environement, operating conditions and metrological needs. As this is a ratio device, the results that we show can easily be improved upon. ** Lower Voltages, e.g. 100 mV, 10 mV, 1 mV the resolution of the DMM (Detector) becomes the dominant uncertainty.	1 mV 10 mV 100 mV 1 V 10 V	< 200 uV/V < 50 uV/V < 5 uV/V < 0.5 uV/V <0.05 uV/V
Insulation Resistance	10^{11} Ω	
Effective Linearity	< 0.02×10^{-6} of Full-scale (Full scale 1 V, 10 V)	
Long-term Drift	N/A - Corrected by Self-Calibration	
Short-term Drift	Dependant on Drift of Source and Environmental Conditions	
Input Impedance	40 kΩ	
Output Impedance	100 kΩ	
Operating Environment	18 °C to 34 °C, 10 % to 80 % RH	
Storage Environment	-5 °C to 40 °C, 95 % Non-Condensing	
Warranty	2 Years Parts & Labour	

How to Order:
Model 8000C - 10 V Binary Voltage Divider

Accessories
10 V Reference 8110A or 1330A
Detector 3458A or 2182A

Dimensions (L × W × H):
610 × 508 × 407(mm)

Weight:
11 kg

Shipping Weight:
21 kg

Mains Power:
100 V_{ac}/120 V_{ac}/220 V_{ac}/240 V_{ac}
50/60 Hz

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