



Technical Data Sheet

Differential Probe for High Voltage Power Measurement - Model 4241A

The 4241A meets IEC61010-031 Category I Requirements and is ideally suited for measuring high-speed voltage surge in power electronics circuits.

Features

- Up to $\pm 7000\text{V}$ (DC +Peak AC) Differential
- Bandwidth up to 70MHZ
- Safety Certified
- Over range Indicator

Applications

- High Voltage Floating Measurement
- Voltage Surge Measurement
- Power Electronics System Design
- Electronic Ballast Design

Included

- High Voltage Sprung Hooks Red & Black (7000V CAT I, 2A)
- Calibration Certificate
- 4ea AA Batteries
- 9 VDC Adapter



Model 4241A Specifications	
Bandwidth	DC to 70MHz (-3dB)
Attenuation	1:100/1000
Accuracy	± 2%
Input Impedance	50 M OHm/10pF each side to ground
Input Voltage -Category	CAT I
-Differential Range*	500Vrms and +700V (DC+Peak AC) @ 1/100 5000Vrms and +7000V (DC+Peak AC) @ 1/1000
-Common Mode Range*	5000Vrms and+7000V (DC+Peak AC) @ 1/100 & 1/1000
-Absolute Max. Voltage* (Differential or Common Mode)	5000Vrms and+7000V (DC+Peak AC) @ 1/100 & 1/1000
Output Voltage -Swing (into 50kohm load) -Offset (typical) -Noise (typical) -Source Impedance (typical)	± 7V <+5mV 0.9m Vrms 50 Ohm (for using 1Mohm input system oscilloscope)
CMRR (typical)	-80dB @ 50Hz, -60dB @ 20Hz
Ambient Operating Temperature	-10 to 40 degree centigrade
Ambient Storage Temperature	-30 to 70 degree centigrade
Ambient Operating Humidity	Up to 85% RH
Ambient Storage Humidity	Up to 85% RH
Power Requirements**	Standard 4 x AA cells or 9VDC adapter (Both Included) Options Power Leads
Length of BNC Cable	26"
Length of Input Leads	23"
Weight	0.9 lb
Dimensions	(LxWxH) 8" x 3 1/4" x 1 1/2"

*Voltage limit is the lesser of the DC+Peak AC and RMS values.

**a. The supplied voltage must be less than 12V and greater than 4.4V, otherwise the probe could be damaged

or will not operate properly.

b. polarity is "+" inside and "iV" outside. For wrong polarity, built-in circuit protects the probe, no danger or damage will occur.

c. When the voltage of the cells become too low, the power indicator on the panel will flicker.

d. The adjustment screw on the front panel of the unit is the output offset adjustment. The output offset adjustment is to adjust the output voltage to zero before measuring.

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