

HIGH VOLTAGE PASSIVE PROBES

The PPE series includes five fixed-attenuation probes covering a range from 2 kV to 20 kV, and one switchable probe providing $\div 10/\div 100$ attenuation for voltage inputs up to 1.2 kV. All fixed-attenuation, standard probes automatically rescale compatible LeCroy oscilloscopes for the appropriate attenuation of the probe.

Features:

- Safe, accurate high-voltage measurement
- 1.2 kV to 20 kV

HIGH-VOLTAGE PROBES SELECTION GUIDE SPECIFICATIONS

Types	Bandwidth (MHz)	Input R (Ω)	Input C (pF)	Attenuation	Maximum Voltage	Probe Encoding	Cable
PPE1.2kV*	400	50 M	< 6	$\div 10 / \div 100$	600 V/1.2 kV	No	2 m
PPE2kV*	400	50 M	< 6	$\div 100$	2 kV	Yes	2 m
PPE4kV*	400	50 M	< 6	$\div 100$	4 kV	Yes	2 m
PPE5kV*	400	50 M	< 6	$\div 100$	5 kV	Yes	2 m
PPE6kV*	400	50 M	< 6	$\div 1000$	6 kV	Yes	2 m
PPE20kV†	100	50 M	< 2	$\div 1000$	20 kV (40 kV peak)	Yes	3 m



PPE1.2KV

PPE2KV

PPE4KV

PPE5KV

PPE6KV

PPE20KV

ORDERING INFORMATION

PRODUCT CODE

$\div 10/\div 100$; 200/300 MHz; 5 M Ω /50 M Ω High-Voltage Probe 600 V/1.2 kV max. Voltage DC	PPE1.2KV
$\div 1000$; 100 MHz; 50 M Ω High-Voltage Probe 20 kV (40 kV Peak) max. Voltage DC and Peak AC	PPE20KV
$\div 100$; 400 MHz; 50 M Ω High-Voltage Probe 2 kV max. Voltage DC and Peak AC	PPE2KV
$\div 100$; 400 MHz; 50 M Ω High-Voltage Probe 4 kV max. Voltage DC and Peak AC	PPE4KV
$\div 100$; 400 MHz; 50 M Ω High-Voltage Probe 5 kV max. Voltage DC and Peak AC	PPE5KV
$\div 1000$; 400 MHz; 50 M Ω High-Voltage Probe 6 kV max. Voltage DC and Peak AC	PPE6KV
Accessory Kit for PPE1.2kV, 2kV, 4kV, 5kV, and 6kV	PK103
Standard Probe Accessory Kit for PPE20kV	PK104
Ground Lead (15 cm)	PK104-1
Hook	PK104-2
Standard Probe Accessory Kit for PPE1.2kV, PPE2kV	PK103
Sprung Hook (red)	PK103-1
Ground Lead (22 cm)	PP005-G22
Crocodile Clip	PK30x-2
Probe Tip to BNC Adapter	PP005-BNC
IC Insulating Tip	
Screw Driver	
Probe Tip to Banana Plug Adapter	
Ground Lead with Banana Plug	
Spring Tip (0.8 mm)	PP005-ST8
Rigid Tip V2A	PP005-RT

STANDARD ACCESSORY KIT FOR PPE20KV

Ground Lead (15 cm)	PK104-1
Hook	PK104-2

Supplied with probe:

* Probe Kit: Trimming tool, ground lead, rigid tip, IC insulator, BNC adapter, tip insulator, sprung hook, red crocodile clip.
4mm safety ground lead, and green/yellow crocodile clip.

† Probe Kit: trimming tool, and ground lead with a crocodile clip.



APO31

HIGH VOLTAGE DIFFERENTIAL PROBES

The AP031 is a low cost, battery operated active differential probe intended for measuring higher voltages. The differential techniques employed permit measurements to be taken at two points in a circuit without reference to the ground, allowing the oscilloscope to be safely grounded without the use of opto-isolators or isolating transformers.

Features:

- Safe floating measurements
- 15 MHz bandwidth
- 700 V maximum input voltage
- Works with any 1 M Ω input oscilloscope

SPECIFICATIONS

Attenuation	$\div 10 / \div 100$
Bandwidth	15 MHz
Input R	4 M Ω
Differential Mode Range	$\pm 70 \text{ V} / \pm 700 \text{ V DC} + \text{Peak AC}$
Common Mode Range	$\pm 700 \text{ V DC} + \text{Peak AC}$
CMRR	86 dB @ 50 Hz
Power Source (four AA batteries)	56 dB @ 200 kHz



ADP305

ADP300

ORDERING INFORMATION

PRODUCT CODE

700 V, 15 MHz Differential Probe ($\div 10, \div 100$)

AP031

ADP30X high-voltage active probes are safe, easy-to-use, and ideally suited for measuring power electronics. The ADP300 is designed for troubleshooting low-frequency power devices and other circuits where the reference potential is elevated from the ground or the location of the ground is unknown. The ADP305 is designed for measuring the high-speed floating voltages found in today's power electronics.

Features:

- 20 MHz and 100 MHz bandwidth
- 1,000 V rms common mode voltage
- 1,400 V peak differential voltage
- EN 61010 CAT III
- 80 dB CMRR at 50/60 Hz
- ProBus system
- Full remote control

HIGH VOLTAGE DIFFERENTIAL PROBES

SPECIFICATIONS

ELECTRICAL CHARACTERISTICS

Bandwidth	20 MHz (ADP300)	
	100 MHz (ADP305)	
Differential Voltage	1,400 V peak	
Common Mode Voltage	1,000 V rms CAT III	
Low-Frequency Accuracy (probe only)	1% of Reading	
CMRR	50/60 Hz	80 dB (10,000:1)
	100 kHz	50 dB (300:1)
Max. Slew Rate (referenced to input)	60,000 V/μs (ADP300)	
	300,000 V/μs (ADP305)	
AC Noise (referenced to input)	50 mV rms	
Attenuation	÷100/÷1000 (automatically selected by scope)	
Input Impedance	Between inputs	8 MΩ, 6 pF
	Each input to ground	4 MΩ, 1 pF
Sensitivity	1 V/div to 350 V/div (ADP300)	
	200 mV/div to 350 V/div (ADP305)	
Interface	ProBus, 1 MΩ*	

GENERAL CHARACTERISTICS

Overall Length	2 m
Input Connectors	4 mm Shrouded Banana Plug
Operating Temperature	0 °C to 50 °C
Warranty	1 year

STANDARD ACCESSORIES

ADP305

All ADP300 Accessories

Safety Spade (1 Red, 1 Blue)
Plunger Clamp Clip (1 Red, 1 Blue)
Plunger Jaw Clip (1 Red, 1 Blue)
Safe Alligator Clip (1 Red, 1 Blue)
Soft Accessory Case

ADP300

Instruction Manual
Certification of Calibration
Plunger Hook Clip (1 Red, 1 Blue)
Straps for Holding Probe

*Requires AP-1M for oscilloscopes with 50 Ω only inputs

ORDERING INFORMATION

PRODUCT CODE

1,400 V, 100 MHz High-Voltage Differential Probe

ADP305

1,400 V, 20 MHz High-Voltage Differential Probe

ADP300