



North Star High Voltage  
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## PVM Series Portable High Voltage Probes to 100 kV DC

PVM series high voltage probes are designed for general use, and for exceptional high frequency response. The probes have applications ranging from automotive ignition to excimer laser system measurement to EMI measurement. They are factory calibrated, and they do not require adjustment. In general the probes are for use with 1 Megohm oscilloscopes, but we also offer an optional switch which can compensate for various measurement instruments such as 10 Megohm meters as well. These units are intended for a wide range of applications where portability and ease of use are essential.



Model Number	PVM-1	PVM-2	PVM-3	PVM-4	PVM-5	PVM-6	PVM-7	PVM-11	PVM-12	PVM-100
DC/Pulsed V (kV) Max	40/60	40/60	40/60	40/60	60/100	60/100	60/100	10/12	25/30	100/150
Max Freq. (Mhz.)	90	90	25	120	90	80	120	30	50	90
Rise (ns)	3.3	3.3	12	2.5	3.3	3.5	2.5	9	7	3.3
DC - 2 Hz.accuracy	0.15%	0.15%	0.15%	0.15%	0.15%	0.15%	0.15%	0.15%	0.15%	0.15%
2 Hz. - 200 Hz. accuracy	1.0%	1.0%	2.0%	1.5%	1.0%	1.0%	1.5%	1.5%	1.5%	1.5%
200 Hz.- 5 Mhz. accuracy	1.5%	1.5%	3%	2%	1.5 %	1.5 %	2%	2.0%	2.0%	2.0%
> 5 Mhz. Accuracy	4%	7%	4%	5%	4%	<7%*	<5 %	<4%	<4%	5%
Input R/C (Megohm/pf)	400/13	400/13	400/10	400/8	400/12	400/12	400/8	100/15	300/7	600/15
Cable Length (ft./m)	15/4.5	30/9	100/30	15/4.5	15/4.5	30/9	15/4.5	15/4.5	15/4.5	15/4.5
Std Ratio	1000	1000	10,000	1000	1000	1000	1000	1000	1000	2000
Length (inches/cm.)	19/47	19/47	19/47	19/47	19/47	19/47	19/47	7/18	9/23	23/57

Add -2 to part number for 2000:1. Drawings at <http://www.highvoltageprobes.com/downloads>  
 -N in general will change the ratio but check on bandwidth/risetime changes in the specification.



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## VD Series High Voltage Probes 60 to 300 kV DC



VD series high voltage probes are floor standing high voltage probes which are designed for rugged day in - day out use. They are used in a wide range of applications from radar to X-ray system quality control to advanced particle accelerator applications. Resistors with an extremely low voltage coefficient of resistance are used, and all capacitors are temperature, frequency, and voltage stabilized for the best possible performance. The probes all have field defining toroids as a standard item in order to minimize the proximity effect (stray capacitance) and maximize the reproducibility of the measurement. The high and low frequency calibrations are carefully matched before shipment. Very high frequency cable effects are also carefully compensated so accurate measurements can be made for short pulses. No adjustments are necessary once the probes have been factory calibrated.

Model Number	VD-60	VD-100	VD-150	VD-200	VD-300	VD-400
Max DC/Pulsed V (kV)	60/105	100/160	150/230	200/300	300/420	400/550
Max Frequency (Mhz.)	20	20	18	16	12	8
Nom Pulse Risetime(ns)	15	15	20	20	25	40
Cable Length (ft.)	30	30	30	30	30	30
DC accuracy	<0.1 %	<0.1 %	<0.1%	<0.1%	<0.2 %	<0.2%
2 Hz. - 1 Mhz. Accuracy	1 %	1 %	1 %	2%	3 %	4 %
>1 Mhz Accuracy	3 %	3 %	3 %	3%	4 %	4%
Resistance (Megohms)	800	1600	2000	2800	2250	3500
Height (inches/cm.)	20/50	24/60	30/75	40/99	54/135	72/180
Diameter (in/cm.)	11/28	11/28	12/29	16/40	24/61	24/61
Capacitance (approx. pf)	27	25	27	24	20	16
Base Diameter(in/cm.)	10/25	10/25	12/30	20/50	30/76*	30/76*
Standard Divider Ratio	10,000:1	10,000:1	10,000:1	10,000:1	10,000:1	10,000:1

\*Square Base

Outline drawings are available at <http://www.highvoltageprobes.com/downloads>.