

Differential Probe

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■ N1000A (50MHz,1500V)



INSTRUCTION MANUAL

■ Maintenance

For maintenance, only use specified spare parts. The manufacturer cannot be held responsible for any accident arising following a repair made other than its after sales service or approved repairs.

■ Cleaning

This probe does not require any particular cleaning. If necessary, clean the case with a cloth slightly moistened with the soapy water.

■ Warranty

Unless notified, our instruments are guaranteed against any manufacturing defect or material defect. They do not bear the specification known as the safety specification.

Our guarantee, which may not under any circumstances exceed the amount of the invoiced price, goes on further than the repair of our faulty equipment, carriage paid to our workshops.

■ Repair

Maintenance, repairs under or out of guarantee. Please return the product to the manufacturer.

N1000A Differential Probe

1.Features

The N1000A differential probe provides a safety means for measuring differential voltage to all models of oscilloscopes. It can convert the high differential voltage ($\leq 1500V$) into a low voltage ($\leq 7V$) and display on the oscilloscope. Its bandwidth is up to 50MHz, which is ideal for big power testing, development and maintain.

The N1000A is designed to operate with the $1M\Omega$ impedance oscilloscopes. When combine with the 50Ω load, the attenuation will be 2 times.

N1000A is recommend to use with our own manufactured PL-10N to expand the measuring with the electricity meter to observe more accurate measurement. The accuracy of oscilloscope is 1% and the electricity meter is about 10 times)

2.Specifications

- (1) Bandwidth:DC-50MHz
- (2) Attenuation: X1000,X100
- (3) Accuracy: +/-1%
- (4) Input voltage range(DC+AC PEAK)
 - $\leq 150V$ for x100,
 - $\leq 1500V$ for x1000
- (5) Permitted max input voltage:
 - Max differential voltage: 1500V(DC+AC PEAK)
 - Max voltage between each input terminal and ground: 5KV RMS

(6) Input Impedance:

Differential: $8M\Omega / 1pF$

Between terminal and ground: $4M\Omega / 2pF$

(7) Output voltage: $\leq 7V$

(8) Output impedance: 50Ω

(9) Rise time: $7nS$

(10) Rejection rate on common mode:

$-80dB @ 60Hz, -50dB @ 100KHz$

(11) Power Supply: External 6V DC power supply, 4*AA battery

(12) Consumption: 300mA max

3. Operating environmental conditions

	Reference	Use	Storage
Temperature	$+20^{\circ}C \dots +30^{\circ}C$	$0^{\circ}C \dots +50^{\circ}C$	$-30^{\circ}C \dots +70^{\circ}C$
Relative Humidity	$\leq 70\%RH$	$10\% \dots 85\%RH$	$10\% \dots 90\%RH$

(1) Dimensions and weight : 84x38x186mm; 500g

4. Operating procedure

Connect the probe to the oscilloscope with the BP-250 BNC TO BNC cable.

Adjust the vertical zero adjustment of the oscilloscope if necessary.

Select the attenuation ration and the vertical deviation of the oscilloscope in accordance with the conversion table below.

Note: The power must be on

Attenuation Ration	X1000	X100
Voltage input range (DC+AC Peak)	1400V	140V

Attention: The real vertical deviation is equal to the attenuation ration multiplied by the range of vertical deviation selected on the oscilloscope. It will be double in the case of a 50Ω load.

N Series Differential Probe Buying Guide

Model	Bandwidth	Attenuation Ratio	Accuracy	Max. input differential voltage (DC+ ACpeak)
N1000A	40MHz	1:1000/100	1%	1400V@1/1000 140V@1/100
N1008A	50MHz	1:100/10	1%	800V@1/100 80V@1/10
N1008B	100MHz	1:100/10	1%	800V@1/100 80V@1/10
N1015A	100MHz	1:1000/100	1%	1500V@1/1000 150V@1/100
N1030A	50MHz	1:1000/100	1%	3000V@1/1000 300V@1/100
N1030B	100MHz	1:1000/100	1%	3000V@1/1000 300V@1/100
N1070A	50MHz	1:1000/100	1%	7000V@1/1000 700V@1/100
N1070Apro	50MHz	1:1000/100	0.5%(50Hz-1 KHz), 1%	7000V@1/1000 700V@1/100
N1070B	100MHz	1:1000/100	1%	7000V@1/1000 700V@1/100