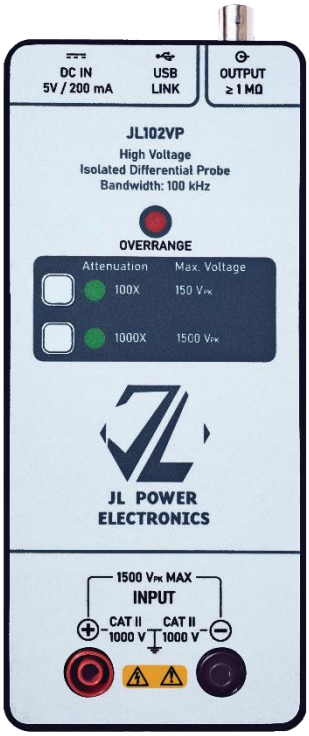
JL102VP
High Voltage Isolated Differential Probe

Key Features and Specifications



- Electrically isolated
- Selectable attenuation settings of 100X or 1000X
- Up to ±1500 V (DC + AC peak)
- 100 kHz bandwidth
- Visual and audible overrange alarm
- USB Link (passthrough) for connection between pen drive and oscilloscope
- Compatible with most oscilloscopes

Applications

- Measurements directly on AC mains (including phase to phase voltages)
- Measurements on DC buses and battery banks
- Measurements on electrical power supply equipment such as uninterruptible power supplies (UPS), solar and VFD inverters, battery charges and others
- Floating measurements
- Other DC or low-frequency AC measurements that require electrical isolation

Overview

The JL102VP differential voltage probe is electrically isolated and allows for safe and accurate floating voltage measurements, with the capability to measure voltages up to ±1.5 kV (DC or peak) with selectable attenuation of 100X and 1000X. The input terminals are protected against transient overvoltages of up to 6 kV between terminals or from each terminal to ground/probe output, ensuring safety for peripheral equipment and users. Visual and audible alarm indicates when the input voltage exceeds the linear measurement range of the probe.

For added convenience, the probe is powered via a USB input and provides an additional USB port of the passthrough or link type, enabling data connection between a storage device (e.g., pen drive) and the host (e.g., oscilloscope) used to power the probe.

This product does not use batteries.

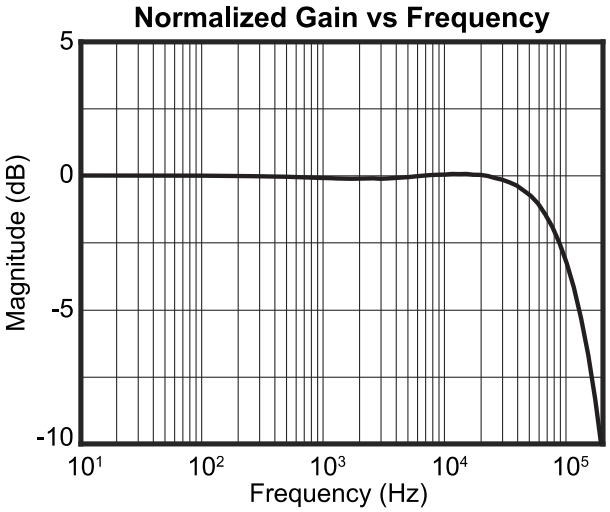
Specifications

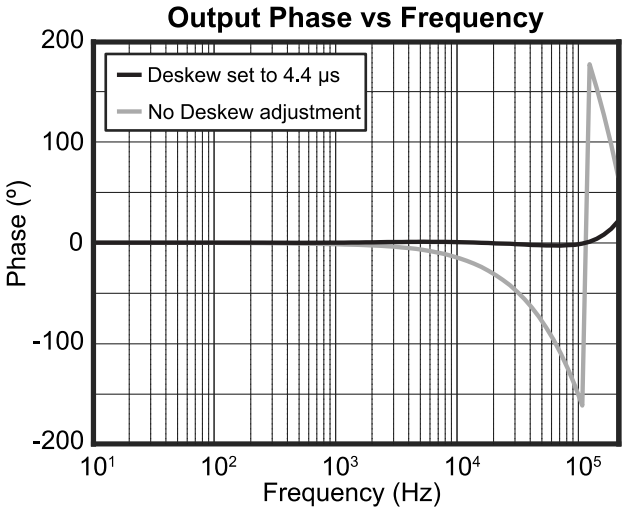
Model		**JL102VP**
Attenuation		100X 1000X
Maximum Differential Voltage	Linear Range (DC + AC peak) Continuous Transient (1 s)	150 V (100X); 1500 V (1000X) 3200 V (100X e 1000X) 6000 V (100X e 1000X)
Maximum Common Mode Voltage	Continuous Transient (60 s)	1700 V (100X e 1000X) 6000 V (100X e 1000X)
Maximum Input Voltage to Earth		1000 V_{RMS} CAT II
Gain Accuracy		±1% (DC – 500 Hz) ±2% (500 Hz – 25kHz)
Bandwidth (Typical)		100 kHz (-3dB)
Rise Time		3.5 µs
Skew delay (1)		4.4 µs
Initial delay (2)		1.5 µs
Differential Input Impedance		5.3 MΩ || < 7 pF
Input to output Impedance		> 5 GΩ || < 6 pF (each input to ground)
Input Coupling		DC
Oscilloscope Input Coupling		1 MΩ, AC or DC
Noise referred to input (Typical)		0.12 V_{RMS} (100X) 1.20 V_{RMS} (1000X)
CMRR (Typical)		DC–100 Hz: 76 dB (100X), 52 dB (1000X) 100 Hz–1 kHz: 54 dB (100X), 45 dB (1000X) 1 kHz–25 kHz: 45 dB (100X), 36 dB (1000X)
Temperature Range	Operating Storage	0 ºC to 40 ºC -10 ºC to 60 ºC
Humidity Range	Operating Storage	< 20% to 85% RH < 5% to 90% RH
Power Supply / Energy Consumption		5 V / 200 mA
Weight		200 g
Dimensions (Maximum)		184 x 75 x 33 mm (7.25 x 2.96 x 1.30 in)

Notes:

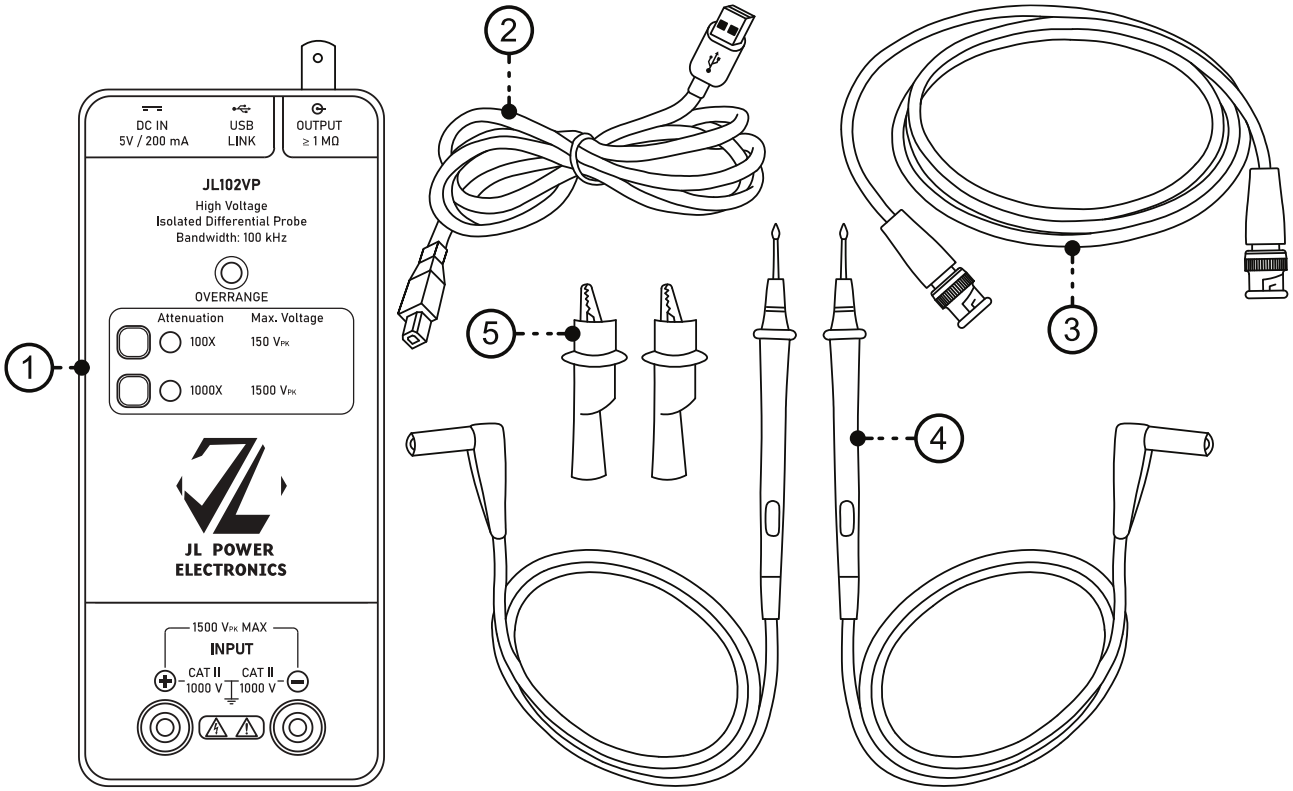
(1) Propagation delay. This parameter is generally used to compensate for the response using the oscilloscope's Deskew function.
(2) Delay time for the start of the response to a voltage step.

Typical Characteristics





Probe and Accessories



1) Probe
2) USB-B to USB-A power and data cable
3) Coaxial RG58C output cable with BNC connectors
4) Probe tips
5) Alligator clip adapter

Optional: USB 5V power supply, 100-240VAC ~50/60 Hz