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# HPB4010 High Voltage Probe



## User Manual

Content

**HPB4010 High Voltage Probe .....1**

    Specifications .....1

    Safety Precautions.....2

    Operation .....2

    Warning.....2

    Cleaning.....3

## HPB4010 High Voltage Probe

### Specifications

Max. Working Voltage		DC: 0~10KV DC AC: pulse $\leq$ 20KV peak to peak AC: sine wave $\leq$ 7KV rms
Single / Noise		DC $\geq$ 60dB(1KHz), $\geq$ 50dB(1MHz)
Bandwidth		DC~40MHz(-3dB)
Division Ratio		1 : 1000
Rise Time		$\leq$ 8.8ns
Input Resistance		100M $\Omega$ $\pm$ 5%
Input Capacitance		3.0PF $\pm$ 0.5PF
Compensation Range		5PF~50PF
Cable Length		2.0 meter( $\pm$ 0.2M)
Temperature Coefficient		$\leq$ 200PPM/ $^{\circ}$ C
Accuracy	DC	$\pm$ 2% (DC to 10KV) $\pm$ 3% (>10KV)
	AC	$\pm$ 3%(1KHz/1KV/1KHz RMS) -3dB: 0~ 40MHz
Safety App.		CE
Operating Temperature		0 ~ 50 $^{\circ}$ C
Storage Temperature		-20 ~ +70 $^{\circ}$ C
Weight / Volume		250g / $\phi$ 75 x 340 mmL.

### **Safety Precautions**

This high voltage probe must only be by personnel who are trained, experienced, or otherwise qualified to recognize hazardous situations and who trained in the safety precautions that necessary to avoid possible injury when using such a device.

Do not work alone when working with high voltage circuits. For your own safety, inspect the probes for cracks and frayed or broken leads before each use. If defects are noted, DO NOT USE the probe. Hands, shoes, floor and work bench must be dry. Avoid making measurements under humid, damp or other environmental conditions that might affect the safety of the measurement situation.

If possible, always turn the high voltage source off before connection or disconnection the probe. The probe body should be kept clean and free of any conductive contamination.

### **Operation**

Connect the divider probe common lead(alligator clip) to a good earth ground or reliable ground. Connect the BNC connector to the BNC input of your oscilloscope. Select the desired range of your oscilloscope. Whenever possible, turn the high voltage source off before making any connections.

When the measuring voltage are DC 8 KV up, or AC 5KVrms up or AC peak 20KV up, do not exceed 60 second and break off 5 minute at least.

### **Warning**

Do not attempt at take measurements from sources when the chassis or return lead is not ground.

This ground connection is critical to the safety operation of the probe. Failure to make this connection may result in personal injury or damage to the probe or voltmeter. This connection must be made before the probe tip comes into contact with the high voltage and must not be removed until after the probe tip has been removed.

Do not connect the ground clip to the high voltage source or the probe tip to the ground for any reason.

BEFORE turning the high voltage on, make sure that no part of your body is in contact with the device. Remembering that the voltage being measured is 1000 times greater than the voltmeter reading.

When the measuring voltage are DC 8 to 10KV, or AC rms 5 to 7KV or AC peak 15 to 20KV, do not exceed 60 seconds on each measurement. Otherwise will caused to the probe over heat or damage. Disconnect the probe tip from the high voltage source BEFORE removing the ground clip lead.

**High Voltage :**

If the equipment is used in a manner not specified by the manufacture, the protection provided by the equipment may be impaired.

**Cleaning**

Clean only the exterior probe body and cables. Use a soft cotton cloth lightly moistened with a mild solution of detergent and water. Do not allow any portion of the probe to submerged at any time.

Dry the probe thoroughly before attempting to make voltage measurement. Do not subject the probe to solvents or solvent fumes as these can case deterioration of the probe body and cables.

**Note:**

When the measuring Voltage are under the following voltage.

Do not exceed 60sec on each measurement.

**DC: 8~10KV**

**AC RMS: 5~7KV**

**AC PEAK: 15~20KV**

**Symbols on the product:**

These symbols may appears on prod. Attention refer to operation instructions.