

Warning

Do not attempt to 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 injuries or damages 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 10 KV, or AC rms 5 to 7 KV or AC peak 15 to 20 KV, do not exceed 60 sec on each measurement. You can break off for 5 minutes at least during the measurement. Otherwise overheating will affect the measurement accuracy even damage the probe. Disconnect the probe tip from the high voltage source **BEFORE** removing the ground clip lead.

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 submerge any portion of the probe at any time.

Dry the probe thoroughly before any voltage measurement.

Make sure the probe is free from any solvents or solvent fumes as these can cause deterioration to the probe body and cables.

性能指标 (Specifications)

最大工作电压	Max. Working Voltage	DC: 0 ~ 10 KV DC AC: pulse \leq 20 KV peak to peak AC: sine wave \leq 7 KVrms
信噪比	Signal/Noise	DC \geq 60 dB (1 KHz), \geq 50 dB (1 MHz)
带宽	Bandwidth	DC ~40 MHz (-3 dB)
衰减比例	Division Ratio	1:1000
上升时间	Rise Time	\leq 8.8 ns
输入阻抗	Input Impedance	100 M Ω \pm 5%
输入电容	Input Capacitance	3.0 pF \pm 0.5 pF
补偿范围	Compensation Range	5 pF ~ 50 pF
线长度	Cable Length	2.0 meter (\pm 0.2 M)
温度系数	Temperature Coefficient	\leq 200 PPM / $^{\circ}$ C
精确度	Accuracy	DC \pm 3% (DC to 10 KV)
		AC \pm 3% (1 KHz/1 KV) -3dB 40 MHz
安全认证	Safety App.	CE
操作温度	Operating Temperature	0 ~ 50 $^{\circ}$ C
存储温度	Storage Temperature	-20 ~ +70 $^{\circ}$ C
重量/尺寸	Weight / Dimension	250 g / Φ 75 x 340 mm L



当测量电压为下述情况时，每次测量时间不得超过60秒。期间需断开并等待散热至少5分钟。

直流: 8 ~ 10 KV
交流 有效值: 5 ~ 7 KV
交流 峰峰值: 15 ~ 20 KV

When the measuring voltage is under the followings. Each measurement should be within 60 sec. You can break off for 5 minutes at least during the measurement.

DC: 8 ~ 10 KV
AC RMS: 5 ~ 7 KV
AC PEAK: 15 ~ 20 KV

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RIGOL®

用户手册 User's Guide



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RP1010H高压示波器探头

High Voltage Probe for Oscilloscope

安全措施

RP1010H高压探头只允许以下人员使用：接受过培训、富有经验、或能够识别危险状况的合格人员，以及为避免产品使用过程中可能发生的危险，接受过必要安全防护培训的人员。

使用高压电路时，操作人员应避免单独操作。

为了您的安全，每次使用探头前，请仔细检查是否存在裂缝、磨损或导线损坏等现象。若发生上述情况，请勿使用该探头。

使用本产品时，您的双手、鞋子、地板及工作台需保持干燥。此外，应避免在潮湿及其他影响操作安全的环境条件下进行测量。

只要条件允许，在连接或断开探头前，应确保高压源处于关闭状态。

探头表面应保持清洁，没有任何导电污染物。

使用方法

确保探头的鳄鱼夹与地端接触良好、可靠。

将探头的BNC连接头插入示波器的BNC接口中。

调节示波器至所需测量量程。在进行任何连接前，只要条件允许，应当确保高压源处于关闭状态。

警告

仪器机箱或回路线未接地时，不可进行任何带电测试。

接地操作是安全使用探头的关键所在。一旦发生错误，很可能导致人员伤害或致使探头以及电压表损坏。在探针与高压源连接前必须完成接地操作，探针移除前不得改变接地状态。

任何情况下，不得将接地夹连接至高压源中，或将探针与地相连。

开启高压源之前，应确保操作人员身体的任何部位均未与仪器接触。

所测电压的实际数值是电压表读数的1000倍。当所测电压为8 ~ 10 KV（直流），5 ~ 7 KV（交流有效值）或者15 ~ 20 KV（交流峰峰值）时，每次测量不得超过60秒。期间需断开并等待散热至少5分钟。否则，过热影响测量精度甚至损坏。在移除接地夹导线前，需断开探针与高压源的连接。

清洁

只需清洁探头外部的部位和导线。使用柔软的棉布蘸取温和的清洁剂和清水轻轻擦拭探头。在任何时候，不得将探头的任何部分浸没在清洁剂或水中。

使用探头进行电压测量前，请确保探头已经彻底干燥。

避免探头受到溶剂或溶剂烟雾的影响，防止探头及其连接线损坏。

Safety Precautions

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

Do not work alone under the high voltage circuits.

For your own safety, inspect the probe 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. Do not make any measurement under humid, damp or other situations that might affect the measurement safety.

If possible, do always turn off the high voltage source before you connect or disconnect 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 a desired range for your oscilloscope. Whenever possible, turn the high voltage source off before making any connections.