

Active current probe 10mA/V & 100mA/V

User manual



Typical Application:

The active current probe is a low cost measurement equipment which can be used together with an oscilloscope for precise low current profile measurements up to 1A. It can be used for research & development of electronic and embedded software systems.

Power supply:



The device can be supplied over a typical USB mini cable. The power source can either be a PC/Laptop or a wall plug USB power supply. The power source must at least deliver 100mA at 5V.

Measurement range selection:



Two measurement ranges can be selected with the appropriate switch:

- 100mA/V → Maximum measurable current 1A
- 10mA/V → Maximum measurable current 100mA

The resolution depends on the measurement device on which the probe is connected. The probe is an analog amplifier.

Bandwidth limitation:



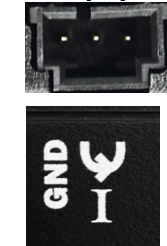
With the bandwidth limiter switch a bandwidth limitation can be turned on or off. If the limitation is on, the cut off frequency is at 22.5kHz. It is a 1st order filter. If the limitation is off, the cut off frequency depends on the selected measurement range:

- 10mA/V: typical.: 200kHz
- 100mA/V: typical.: 2MHz



Sensor clips:

GND|in|out

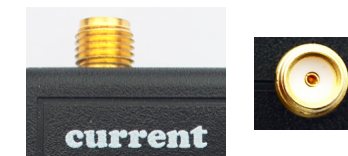


The sensor clip cable contains three clips:

- GND: It is the reference of the measurement system. It is connected to the power supply GND and the signal output GND. It is the black wire with the black clip
- IN: It is the red wire with the red clip. The current flows through this cable into the active current probe
- OUT: It is the white wire with the white clip. The current flows out the device into DUT through this cable.

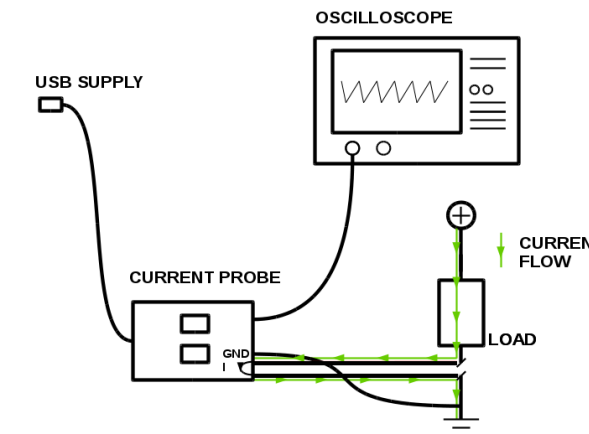
Use only the provided sensor clip cable by LabDevice!

Signal output:



The signal output delivers the measured and processed current which is represented by a voltage value (i.e. 10mA per V). The output can be connected with an SMA cable to a voltage measurement device (high impedance input), typically an oscilloscope.

Typical setup:



Warranty and disclaimer:

LabDevice offers a two-year warranty from the date of purchase. This warranty does not cover damages from misuse, contamination, alteration, accident or abnormal operation condition or handling, including failures which are caused by using the product out of specification of the datasheet or normal wear and tear of mechanical components.

If the product is damaged, please contact info@labdevice.com for further information.

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