Current Probe
PS-2184

Introduction

The Current Probe attaches to a PASCO voltage sensor to enable the measurement of current between −4 A and +4 A. The probe contains a 0.10 Ω resistor. Current to be measured flows through the resistor; the voltage sensor measures the resulting potential across the resistor.

Set-up

1. Insert the probe into a circuit where you want to measure current. Positive current will flow from the red terminal on one side to the black terminal on the other side. The voltage applied across the probe should not exceed 0.4 V. The maximum absolute voltage of the circuit should not exceed 10 V.

2. Connect the voltage sensor to the side-by-side red and black terminals.

Note: If you are using the PS-2171 Dual Voltage Sensor, current is selectable in software as one of the sensor's measurements. For any sensor, multiply the measured voltage (in volts) by 10 to find the current (in amps).

Specifications

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resistor</td>
<td>0.10 Ω, 3.0 W, 1.0%</td>
</tr>
<tr>
<td>Maximum current</td>
<td>4 A</td>
</tr>
<tr>
<td>Maximum voltage between terminals</td>
<td>0.4 V</td>
</tr>
<tr>
<td>Maximum circuit voltage</td>
<td>10 V</td>
</tr>
<tr>
<td>Maximum absolute voltage without damage</td>
<td>30 V</td>
</tr>
<tr>
<td>Terminals</td>
<td>4 mm banana jacks</td>
</tr>
</tbody>
</table>

In addition to observing the current probe's maximum voltage, do not exceed the maximum voltage of the connected voltage sensor or interface.

Current greater than 4 A or less than -4 A may damage the probe by causing the resistor to overheat. The time before damage occurs depends on the current and the initial temperature of the resistor.

Technical Support

For assistance with any PASCO product, contact PASCO at:

Address: PASCO scientific
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Roseville, CA 95747-7100

Phone: 916-786-3800 (worldwide)
800-772-8700 (U.S.)

Fax: (916) 786-7565
Web: www.pasco.com
Email: support@pasco.com

Limited Warranty For a description of the product warranty, see the PASCO catalog.

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