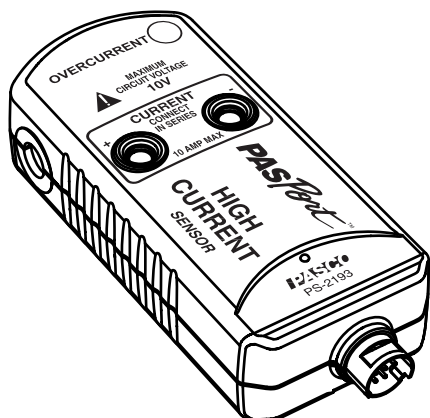


High Current Sensor

PS-2193



Included Equipment	Part Number
High Current Sensor	PS-2193
Additional Equipment Required	
PASPORT Interface	See www.pasco.com or PASCO catalog

Quick Start

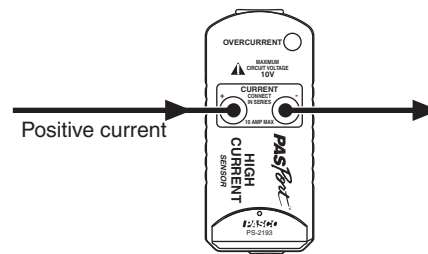
1. Connect the High Current Sensor to you PASPORT interface.
2. If you are using a computer, connect the PASPORT interface to it and start DataStudio.
3. Connect the sensor to a circuit.
4. Press or click the **Start** button to begin recording data.

Introduction

The PS-2193 High Current Sensor measures current between -10 A and $+10\text{ A}$. The sensor connects to a PASPORT interface and collects data at up to 1000 samples/s.

Connecting to a Circuit

Use cables with 4 mm banana plugs to place the sensor in a circuit as illustrated. Positive current flows into the positive terminal and out of the negative terminal.



The voltage anywhere within the connected circuit should not exceed 10 V above or below earth ground.

Overcurrent

If the current through the sensor exceeds $\pm 10\text{ A}$, the overcurrent indicator on the sensor will light up. Reduce the current or disconnect the sensor to prevent damage.

Over-sampling

The High Current Sensor uses dynamic variable over-sampling to reduce noise and produce smoother data. The degree of over-sampling that takes place within the sensor depends on the sample rate. To maximize over-sampling, set the sample rate as low as possible for a given application. Maximum over-sampling occurs at sample rates of 10 Hz or slower.

Specifications

Measurable current range	–10 A to +10 A
Measurement resolution	16 bits (approximately 300 μ A)
Maximum circuit voltage	10 V above or below earth ground
Measurement accuracy	0.5% or 2.5 mA, whichever is greater
Sensing element series resistance	0.01 Ω
Maximum sample rate	1000 samples/s
Maximum continuous current without damage	12 A
Maximum continuous circuit overvoltage without damage	40 V above or below earth ground
Terminals	4 mm banana jacks

Technical Support

For assistance with any PASCO product, contact PASCO at:

Address: PASCO scientific
10101 Foothills Blvd.
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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