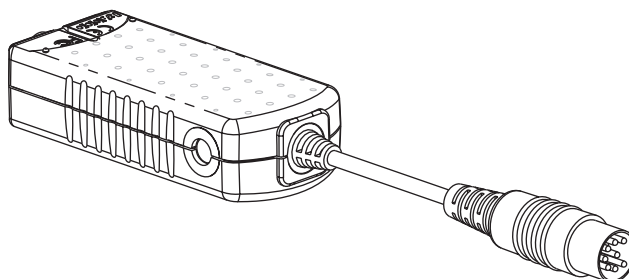


# Analog Adapter

PS-2158



## Introduction

The PS-2158 Analog Adapter allows an analog ScienceWorkshop sensor to be used with a PASPORT interface. Multiple Analog Adapters can be used simultaneously to support multiple ScienceWorkshop sensors.

| Compatible PASPORT Interfaces | Part Number |
|-------------------------------|-------------|
| Xplorer GLX <sup>1</sup>      | PS-2002     |
| Xplorer <sup>1, 2</sup>       | PS-2000     |
| Power Link                    | PS-2001     |
| USB Link                      | PS-2100     |

<sup>1</sup>When the Analog Adapter is used with an Xplorer or Xplorer GLX in logging mode (not connected to a computer), the logger records output voltage from the sensor. A future free upgrade to the GLX will support calibrated data logging. Visit [www.pasco.com](http://www.pasco.com) for the latest GLX upgrade.

<sup>2</sup>When the Analog Adapter is used with an Xplorer (PS-2000) in logging mode, the Xplorer Power Adapter (PS-2530) is recommended (and in some cases required) due to the high current draw of some ScienceWorkshop sensors.

## Equipment and Software Setup

DataStudio version 1.9.5 (or later) is required. Visit [www.pasco.com](http://www.pasco.com) to download the latest version of DataStudio.

*The first three steps can be performed in any order.*

1. Connect an analog ScienceWorkshop sensor to the cable of the Analog Adapter.
2. Connect the Analog Adapter to a PASPORT interface.
3. Connected the PASPORT interface to a computer.
4. If DataStudio is not running, it will launch automatically.
5. The ScienceWorkshop Analog Sensors list will open automatically. Select the connected sensor from the list and click OK.
6. To view and change the sampling rate, gain, and other settings of the sensor and adapter, press the Setup button in DataStudio's main tool bar; the Experiment Setup window will open. Refer to DataStudio documentation for further instructions.

## Specifications

|                                                            |                                                                  |
|------------------------------------------------------------|------------------------------------------------------------------|
| <b>Maximum input voltage range<sup>1</sup></b>             | –10 V to +10 V                                                   |
| <b>Absolute maximum input voltage range without damage</b> | –40 V to +40 V                                                   |
| <b>Input impedance</b>                                     | 1 M $\Omega$                                                     |
| <b>Gain</b>                                                | 1, 10, and 100<br>(selectable in DataStudio)                     |
| <b>Maximum Sampling Rate</b>                               | 50 kHz with Xplorer GLX<br>1000 Hz with other interfaces         |
| <b>Analog-to-Digital Conversion</b>                        | 12 bit                                                           |
| <b>Voltage Resolution</b>                                  | 5 mV at gain = 1<br>0.5 mV at gain = 10<br>0.05 mV at gain = 100 |
| <b>Offset voltage accuracy</b>                             | < $\pm 5$ mV                                                     |
| <b>Full-scale voltage accuracy</b>                         | < $\pm 15$ mV                                                    |

<sup>1</sup>When used with a ScienceWorkshop Voltage Sensor (CI-6503) or Current Sensor (CI-6556), the sensor measures differential voltage, but the maximum input voltage range to either terminal is  $\pm 10$  V.

## 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) 786-3292

Web: [www.pasco.com](http://www.pasco.com)

Email: [support@pasco.com](mailto:support@pasco.com)

### Limited Warranty

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

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