

# 1145 User Guide

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Go to this device's product page <sup>[1]</sup>

## Getting Started

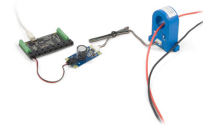
### Checking the Contents

**You should have received:**    **In order to test your new Phidget you will also need:**

- A  $\pm 12\text{V}$  Sensor Adapter
- A sensor cable
- Two  $10\text{k}\Omega$  resistors
- A PhidgetInterfaceKit 8/8/8 or a PhidgetTextLCD
- A USB cable
- A  $\pm 12\text{V}$  Sensor

### Connecting the Pieces

1. Connect the  $\pm 12\text{V}$  Sensor Adapter to a  $\pm 12\text{V}$  Sensor.
2. Connect the  $\pm 12\text{V}$  Sensor Adapter to an Analog Input on the PhidgetInterfaceKit 8/8/8 using the sensor cable.
3. Connect the PhidgetInterfaceKit to your PC using the USB cable.



### Testing Using Windows 2000 / XP / Vista / 7

Make sure you have the current version of the Phidget library installed on your PC. If you don't, follow these steps:

1. Go to the Quick Downloads section on the Windows page
2. Download and run the Phidget21 Installer (32-bit, or 64-bit, depending on your system)
3. You should see the **Ph** icon on the right hand corner of the Task Bar.

### Running Phidgets Sample Program


Double clicking on the **Ph** icon loads the Phidget Control Panel; we will use this program to ensure that your new Phidget works properly.

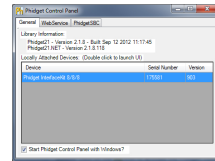
The source code for the **InterfaceKit-full** sample program can be found in the quick downloads section on the C# Language Page. If you'd like to see examples in other languages, you can visit our Languages page.

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### Updating Device Firmware

If an entry in this list is red, it means the firmware for that device is out of date. Double click on the entry to be given the option of updating the firmware. If you choose not to update the firmware, you can still run the example for that device after refusing.

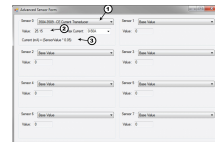
Double Click on the  icon to activate the Phidget Control Panel and make sure that the **Phidget InterfaceKit 8/8/8** is properly attached to your PC.



1. Double Click on **Phidget InterfaceKit 8/8/8** in the Phidget Control Panel to bring up InterfaceKit-full and check that the box labelled Attached contains the word True.
2. Make sure that the Ratiometric box is NOT Ticked.
3. Test your sensor by introducing stimulus (eg. put a warm object on a temperature sensor) and you should see the value change in the box that corresponds to the analog input that the  $\pm 12V$  sensor adapter is plugged into.
4. You can adjust the input sensitivity by moving the slider pointer.
5. Click on the Sensors button to bring up the Advanced Sensor Form.



1. In the Sensor box of the input you plugged the sensor into, select the sensor you're using from the drop down menu.
2. In this example we're using a current transducer. The current being measured is displayed in the box.
3. Formula used to convert the analog input SensorValue into mA.



### Testing Using Mac OS X

1. Go to the Quick Downloads section on the Mac OS X page
2. Download and run the Phidget OS X Installer
3. Click on System Preferences >> Phidgets (under Other) to activate the Preference Pane
4. Make sure that the is properly attached.
5. Double Click on in the Phidget Preference Pane to bring up the Sample program. This program will function in a similar way as the Windows version.

### Using Linux

For a step-by-step guide on getting Phidgets running on Linux, check the Linux page.

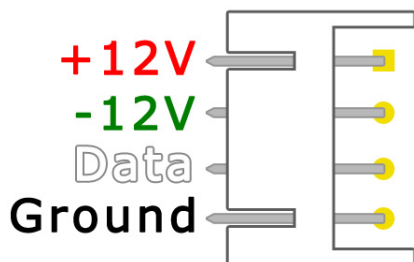
### Using Windows Mobile / CE 5.0 / CE 6.0

For a step-by-step guide on getting Phidgets running on Windows CE, check the Windows CE page.

### Technical Details

#### Connector

The 1145 uses a four-pin side mounted XH connector as its input.



## Formulas

The formula to translate SensorValue into return voltage of the ±12V sensor is:

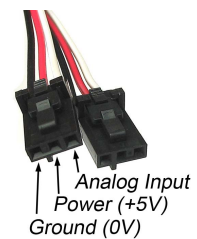
$$\text{Sensor Voltage (V DC)} = \text{SensorValue} / 200$$

In order to convert from the return voltage of the 1145 into the actual reported value of your sensor, check you specific sensor's data sheet or user guide for the formula.

## Other Interfacing Alternatives

If you want maximum accuracy, you can use the RawSensorValue property from the PhidgetInterfaceKit. To adjust a formula, substitute (SensorValue) with (RawSensorValue / 4.095) If the sensor is being interfaced to your own Analog to Digital Converter and not a Phidget device, our formulas can be modified by replacing (SensorValue) with (Vin \* 200). It is important to consider the voltage reference and input voltage range of your ADC for full accuracy and range.

Each Analog Input uses a 3-pin, 0.100 inch pitch locking connector. Pictured here is a plug with the connections labelled. The connectors are commonly available - refer to the Analog Input Primer for manufacturer part numbers.



## Product History

Date	Board Revision	Device Version	Comment
July 2013	0	N/A	Product Release

## References

[1] [http://www.phidgets.com/products.php?product\\_id=1145](http://www.phidgets.com/products.php?product_id=1145)

# Article Sources and Contributors

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