Dial Phidget

Contents

Getting Started

- HIN1101 Dial Phidget
- USB cable and computer
- Phidget Cable
- VINT Hub

Next, you will need to connect the pieces:

1. Connect the VINT Hub to your computer with a USB cable.
2. Connect the HIN1101 to the VINT Hub using the Phidget Cable.

Now that you have everything together, let's start using the HIN1101!

Using the HIN1101

Phidget Control Panel

In order to demonstrate the functionality of the HIN1101, the Phidget Control Panel running on a Windows machine will be used.

The Phidget Control Panel is available for use on both macOS and Windows machines.

Windows

To open the Phidget Control Panel on Windows, find the icon in the taskbar. If it is not there, open up the start

menu and search for Phidget Control Panel

macOS

To open the Phidget Control Panel on macOS, open Finder and navigate to the Phidget Control Panel in the

Applications list. Double click on the icon to bring up the Phidget Control Panel.
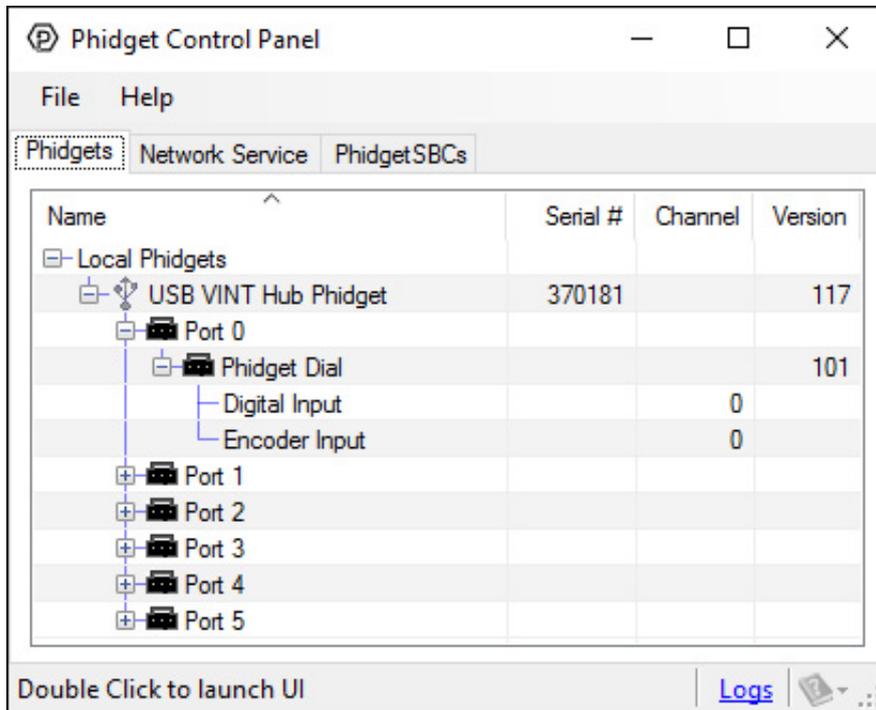
For more information, take a look at the getting started guide for your operating system:

- Getting started with Windows
- Getting started with macOS

Linux users can follow the getting started with Linux guide and continue reading here for more information about the HIN1101.

First Look

After plugging the HIN1101 into your computer and opening the Phidget Control Panel, you will see something like this:
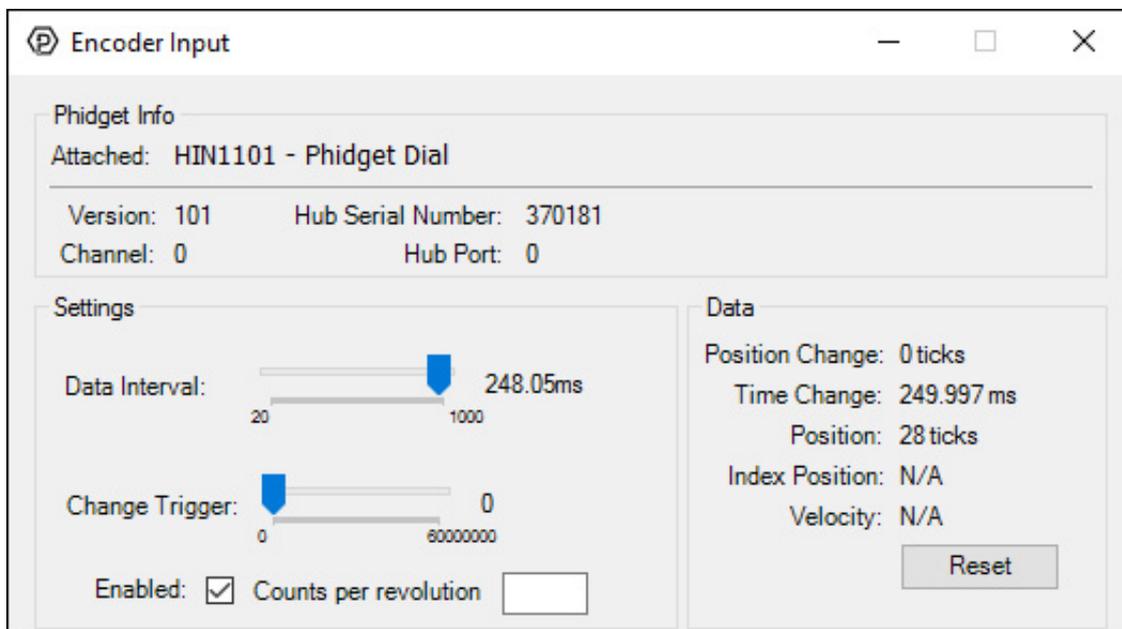

The Phidget Control Panel will list all connected Phidgets and associated objects, as well as the following information:

- **Serial number:** allows you to differentiate between similar Phidgets.
- **Channel:** allows you to differentiate between similar objects on a Phidget.
- **Version number:** corresponds to the firmware version your Phidget is running. If your Phidget is listed in red, your firmware is out of date. Update the firmware by double-clicking the entry.

The Phidget Control Panel can also be used to test your device. Double-clicking on an object will open an example.
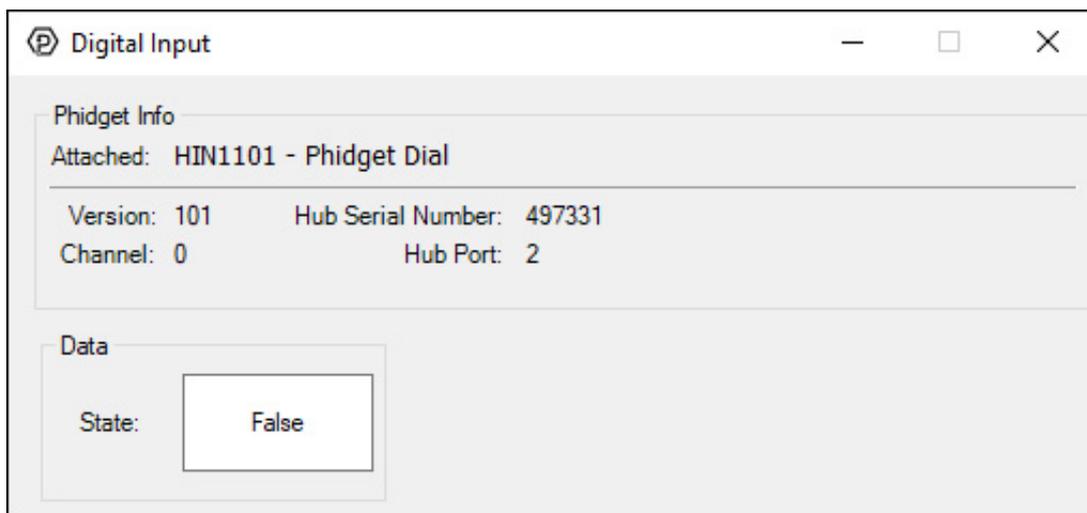
Encoder

When you double click on an Encoder object, a window like the one pictured will open.

- At the top of the window, information about your device and the properties of this particular channel will be listed.
- On the left, you can enable the input (if applicable) and specify the counts per revolution (CPR) to enable velocity calculation. Press enter after typing a number to enable velocity. You can also adjust the Data Interval and Change Trigger.
- On the right, real-time data is displayed:
  - **Position Change:** The number of ticks (or quadrature cycles) that have occurred since the last change event.
  - **Time Change:** The amount of time in milliseconds that has elapsed since the last change event.
  - **Position:** The total position in ticks relative to where the encoder was when the window was opened.
  - **Index Position:** Not supported by this device.
  - **Velocity:** If a CPR has been specified, the average velocity in rotations per minute.

Digital Input

Double-click on a Digital Input object in order to run the example:

General information about the selected object will be displayed at the top of the window. You can also experiment with the following functionality:

- You can click down on the center of the dial in order to activate the digital input.

What to do Next

- Software Overview - Find your preferred programming language here to learn how to write your own code with Phidgets!
- General Phidget Programming - Read this general guide to the various aspects of programming with Phidgets. Learn how to log data into a spreadsheet, use Phidgets over the network, and much more.
- Phidget22 API - The API is a universal library of all functions and definitions for programming with Phidgets. Just select your language and device and it'll give you a complete list of all properties, methods, events, and enumerations that are at your disposal.