



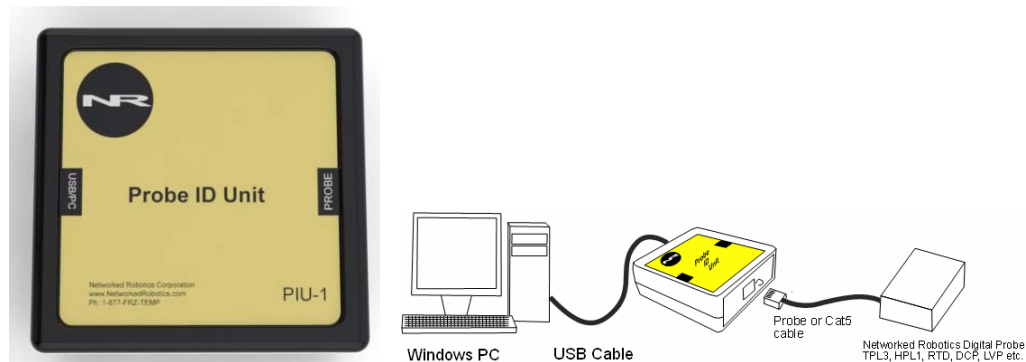
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Digital Probe ID Reader, PIU-1 (#30010)

All of Networked Robotics' digital sensors are designed to facilitate the reliability of regulated data collection by uniquely identifying the source of each measurement. Each Networked Robotics sensor contains a permanent, electronically embedded unique ID.

With this product and its associated Windows software the unique electronic ID and other compliance data types can be read by a Windows computer and copied into Excel spreadsheets or other Windows applications. Usually the Probe ID Reader will be used to facilitate regulatory support for functions such as metrology, installation qualification, operational qualification, or system validation.



Description

The unit reads (1) data values such as temperature from the sensors (2) the embedded electronic unique ID, and (3) probe firmware versions.

About Unique IDs

The unique IDs in Networked Robotics' digital sensors are assigned by different methods for different products. In some cases unique IDs are provided by the manufacturer of the critical data-measuring electronic components used in the sensor. In some cases the unique IDs are provided by Networked Robotics. See the manual for each sensor for a description of the method or source of the ID for that product. Some Networked Robotics interface products such as those used for direct connections to high end scientific instruments, do not contain unique IDs.

The PIU-1 supports reading of the following Networked Robotics probe types:

- TP-1 digital temperature probe
- TPL-3 series digital temperature probes
- HPL-1 digital humidity and temperature probe
- DCP dry contact probe
- RTD resistance temperature detector probe
- LVP low voltage probe

Packing List

The package includes the hardware you need to read electronically embedded IDs from your PC. Digital probes are available separately from Networked Robotics.

Included in the package are:

- (1) Digital Probe ID Reader (PIU-1)
- (1) USB Cable, 6 feet long

Hardware Installation

The ID Reader connects to a PC using a USB 1.1 / USB 2.0 interface. No external power supply is required as the unit derives its power from the USB connection. Networked Robotics probes are connected to the ID unit via a standard RJ-45 jack as shown in the diagram above.

To read information from the ID Reader you must download a Windows application called the “ID Unit Wizard” from the company’s download page at www.networkedrobotics.com. See below for more detailed instructions.

There are two installation steps needed In order to use the ID Reader for the first time. You will need to download the Networked Robotics Probe ID Wizard software and you will need to install the Windows USB driver.

Driver Installation

Installation of the USB driver is often an automatic process and is similar to the process of installing other hardware. The computer should be connected to the internet the first time you plug in the ID Reader. You will only have to go thru this driver installation once.

Simply connect the ID Reader to an open USB port on your PC using the supplied USB cable. Windows will alert you that it has found a new hardware: “FT USB UART”. The first time you have connected the ID Unit; the Windows New Hardware Wizard will launch and ask if you want to allow Windows to search for a driver automatically. Select “Yes, this time only” and click “next”. See the screens below:



On the next screen, select “Install the software automatically” and click “next”.



It may take a minute or so, but the system should eventually fetch and install the correct drivers and you will get a screen similar to the following:



Click “finish”, and Windows will go thru one more driver install for the “USB serial port.” Just select the same search options as above. When this is done you may see a small popup from your system tray informing you that your new hardware is ready to use. You are now ready to download and launch the ID Unit Wizard Software and use your ID Reader



ID Reader Wizard Software

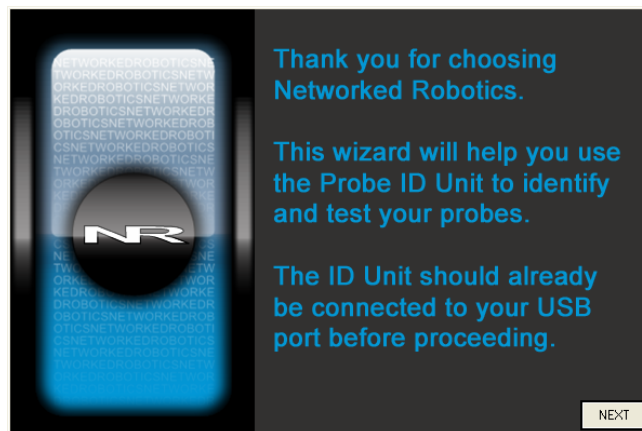
Download

To use the Networked Robotics Digital Probe ID Reader, you will need to download the “Probe ID Wizard” software from the Networked Robotics web site. Download the ID wizard software from www.networkedrobotics.com/download and then click on the ID dog tags icon as shown above to download. To run the ID Unit Wizard, double-click on the icon.

Using the ID Wizard

Connect one of your Networked Robotics sensors to the port labeled “probe” on the ID Reader. Some digital probes may require connections to their intended source in order for a valid ID to be read, for example the RTD probe requires a connection to a PT-100 RTD. In general the probe must be “ready for data acquisition” in order for the ID to be read.

The photo to the right shows CAT5 cable that is connected to a Networked Robotics RTD probe (RTD not shown). All other types of digital probes plug directly into the “probe” port. Next, double click on the ID Unit Wizard icon. Follow the prompts. Click on the “Query” button. The ID Reader will query your probe and display relevant ID, firmware version, and current measurement. To refresh the information, or read a new digital probe, simply connect the new probe and hit the “query” button again. There is no need to exit and restart the wizard.

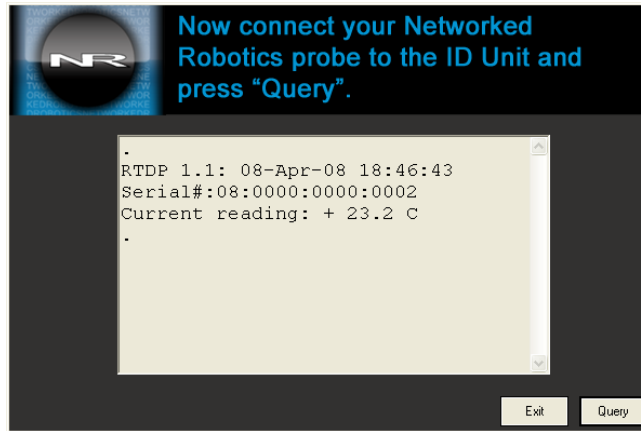


Some sample reports from various probes are:

```
HPL3 1.0: 25-Apr-07 21:54:00
Serial#:04:0000:0000:0101
Current reading: + 25.5 C, 52.9 %
```

```
TPL3: Revision unknown
Serial#:28-60-7B-99-00-00-00-B2
Current reading: +024.9 C
```

```
DCP 1.0: 26-Jul-07 11:26:43
Serial#:07:0000:0000:100A
Current reading: +000.0 C
```



Transferring Embedded IDs to Excel or Other Applications

You can use your mouse to highlight any portion of the screen, including the probe embedded ID, or data values, and then right-click and choose the “Copy” option. You can then Paste into other applications, including Microsoft Excel.

Reference

Prohibited Connections

Do not attempt to connect the ID Reader to any Ethernet interface or to Networked Robotics’ NTMS network hardware. It should only be connected to personal computers, and the probe port should only be connected to Networked Robotics measurement probes of all types.

Probe Serial Numbers and Firmware Revision

The format of the serial number varies slightly between device types. Probes with firmware are also capable of reporting their revision numbers and date of compilation to the ID Unit.

Digital temperature probes TP-1 and TPL-3 have hexadecimal based serial numbers of the form: 28-XX-XX-XX-XX-XX-XX-XX, where XX is an 8 bit hexadecimal number from 00 to FF. Note that TP-1 and TPL-3 probes do not have a firmware revision number, so “Revision unknown” will be displayed. This is normal and not a cause for alarm.

Dry Contact Probes (DCP) have hexadecimal based serial numbers of the form: 07:XXXX:XXXX:XXXX, where XXXX is a 16 bit hexadecimal number from 0000 to FFFF.

Humidity/Temperature Probes (HPL) have hexadecimal based serial numbers very similar to the DCP. They are of the form: 04:XXXX:XXXX:XXXX, where XXXX is a 16 bit hexadecimal number from 0000 to FFFF

Resistive Temperature Detector Probes (RTD) have hexadecimal based serial number of the form 08:XXXX:XXXX:XXXX, where XXXX is a 16 bit hexadecimal number from 0000 to FFFF.

As new probe types become available from Networked Robotics, IDs will follow the form: YY:XXXX:XXXX:XXXX as above where YY is the probe type and the Xs are serial number digits in hexadecimal form.

Physical Specifications

Weight:	56 grams (2.0 ounces)
Length:	67.22 mm (2.647 inches)
Width:	66.22 mm (2.607 inches)
Height:	28 mm (1.102 inches)

Support

If you need assistance with your Digital Probe ID Reader, contact Networked Robotics by phone at 877-FRZ-TEMP (877-379-8367) or by email at support@networkedrobotics.com