Temperature Probe Interface · DTPI

The DTPI is a temperature probe interface that can handle up to 4 "one-wire" DS18B20 or DS18S20 temperature probes (sold separately). The probes can measure temperatures ranging from -55° to 100° Celsius. The interface itself is designed to operate between 0° and 70° Celsius.

Temperature probes are available in three cable lengths: 1m, 5m and 15m with pigtail connections, but the DTPI has been successfully tested with cable lengths of up to 30 meters. The DTPI also accepts a standard 1/8" stereo plug for convenient probe connection. A 9V "wall wart" type AC/DC adapter is provided with the unit.

When a temperature probe is connected to either the terminal block or the corresponding 1/8" stereo jack, the associated front-panel LED display shows the temperature measured by the probe. The temperature can be displayed in degrees Celsius or Fahrenheit. Readings can also be retrieved remotely through SNMP GET commands sent to the onboard SNMP agent. The MIB file is available for download at dex.davicom.com – Documents - Software & Firmware.

There is also a DTPI Toolbox application available for download from the website. Instructions to use the DTPI Toolbox are given on the following pages.

ELECTRICAL SPECIFICATIONS	
Operating Voltage	+5 to +9 VDC
Current consumption	250 mA @ 9 VDC

Certification: EMC: FCC Part 15 (Class A)

INSTALLATION

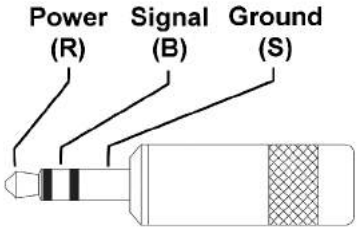
Install the DTPI unit at a convenient location inside the building, close to a 120VAC power outlet. Install the temperature probes at the selected measurement points and run the cables to the DTPI unit.

Connect the probe wires to the DTPI probe inputs according to the following table:

ONE-WIRE INTERFACE CONNECTIONS	
Red wire	(R) - Power
White wire	(B) - Signal
Black wire	(S) - GND

The temperature probe wires can be connected directly to the terminal block on the left side of the DTPI unit or, alternatively, to the corresponding 1/8 stereo jack probe inputs located on the right side. Never use both connection types simultaneously for the same probe input (terminal block and stereo jack).

When using a 1/8 stereo plug for probe connection, refer to the following contact pinout for connector installation:



OPERATION

- Connect the AC/DC adapter cable to the power connector on the right side of the unit.
- During start-up, the top PROBE-1 display will briefly show the firmware version (ex. "100" means version 1.0.0).
- The PROBE-3 display will show the currently selected temperature scale, either °F or °C.
- After start-up, the unit will display the temperatures read by the probes. If no probe is connected to a probe input, or if the probe is defective, the corresponding display will show three dashes: "- - -".
- Pressing on the °F/°C button will switch between the °F and °C scales. When releasing the °F/°C button, PROBE-3 display will show the selected temperature scale for approximately 1 second.
- An IP reset button restores the device IP address to its default value [192.168.1.210]. To reset the IP address, press the IP reset button and hold it until blinking dashes are seen on all displays.
- To change the default IP address, both a PC and an SNMP manager app are required. Free SNMP manager apps are available online. Note that an alternate method is to use the DTPI Toolbox application.
- Connect to the unit using the default address and locate the following OIDs: dtpiIpAddr, dtpiIpNetMask and dtpiIpGateway. Default values are show in the table below:

Result Table

Name/OID	
dtpiIpAddr.0	192.168.1.210
dtpiIpNetMask.0	255.255.255.0
dtpiIpGateway.0	192.168.1.1

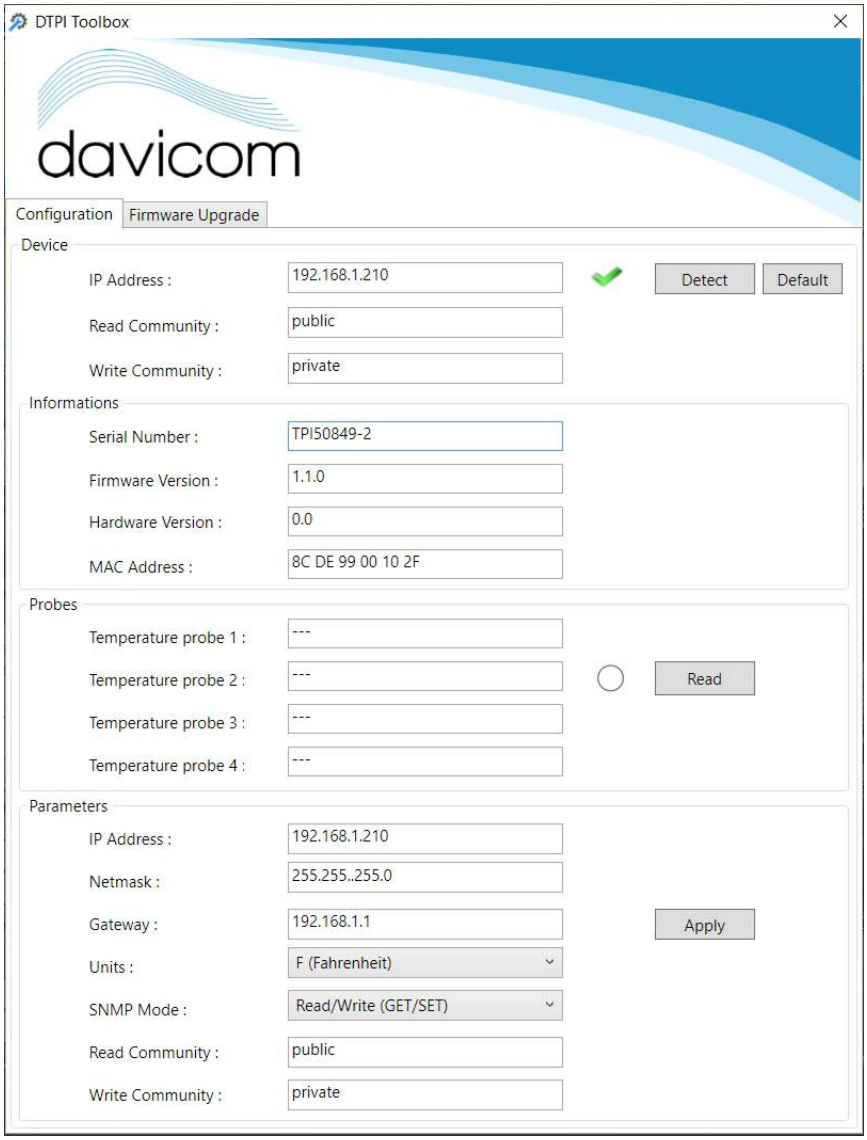
- Change the values to those recommended by your IT specialist.
- To make the changes effective, remove power from the unit for a few seconds and then turn it back on again.

DTPI Toolbox Configuration and Use

The screenshot below shows the Main screen of the DTPI Toolbox when it first starts up. As shown in the screenshot, all fields are blank, except for the default IP address and the SNMP Read and Write communities.

PART 1: Using the DTPI Toolbox

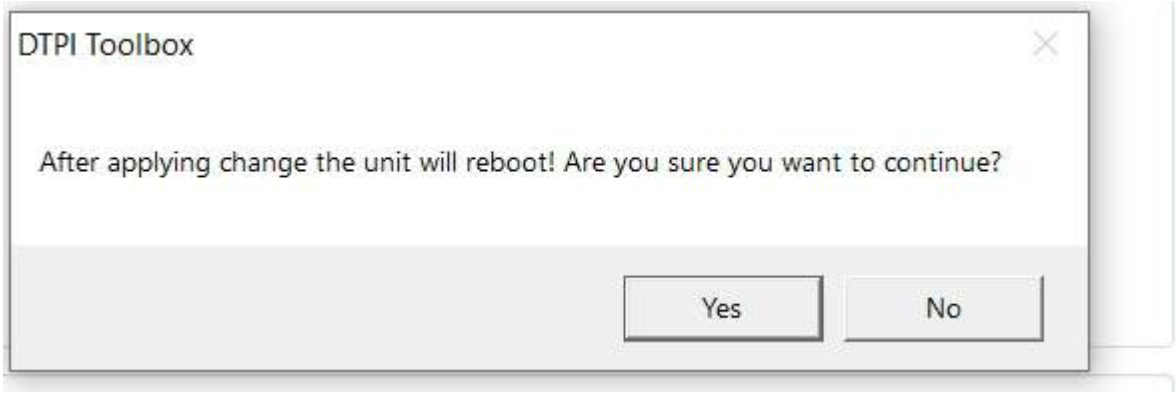
1- Power up the DTPI device using the included AC/DC power adapter.
2- Connect the Ethernet port on the DTPI device to a PC using an Ethernet cable
3- Note that depending on your computer, a cross-connect cable may be necessary.
4- Set the IP parameters in your PC to allow access to the 192.168.1.210 subnet.
5- Click the Detect button at the top of the DTPI window.
6- If the IP settings in your PC are correct, the DTPI information details will be displayed as shown below.
7- Clicking the Read button will display the temperature measured by the connected probes.



PART 2: Setting the DTPI device to your network parameters

1- In the bottom part of the DTPI window, enter the IP Parameters assigned by your IT department. Refer to the example below.

2- Click the Apply button and the following message will appear. Click Yes.

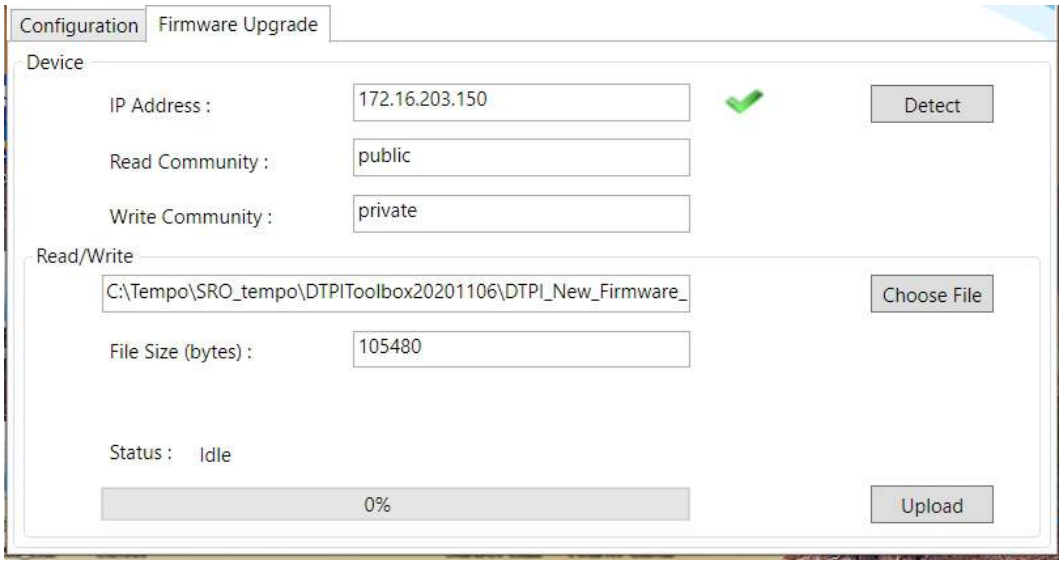


3- Wait until the DTPI device reboots (approx. 30 seconds), enter the new IP address in the Configuration window at the top, and then click Detect.

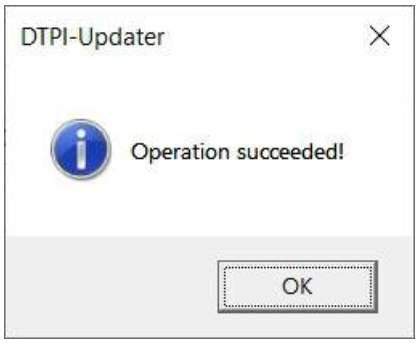
4- The updated screen will now show the same device details as before, but will display the new IP parameters.

PART 3: Firmware upgrading of the DTPI device

1- To perform a firmware upgrade, click on the Firmware Upgrade tab.
2- Enter the IP address of the DTPI device, and click Detect.
3- Next, click Choose File to browse your computer to find and select the firmware file.



4- Click Upload, and after the file has been uploaded, the confirmation message below appears.



IMPORTANT: If you set the SNMP Mode of the DTPI device to Read Only (GET) for security purposes, you will be unable to change any DTPI parameters. To regain access to SNMP SET functionality, the DTPI must be reset to default parameters by clicking the IP Reset button on the device