

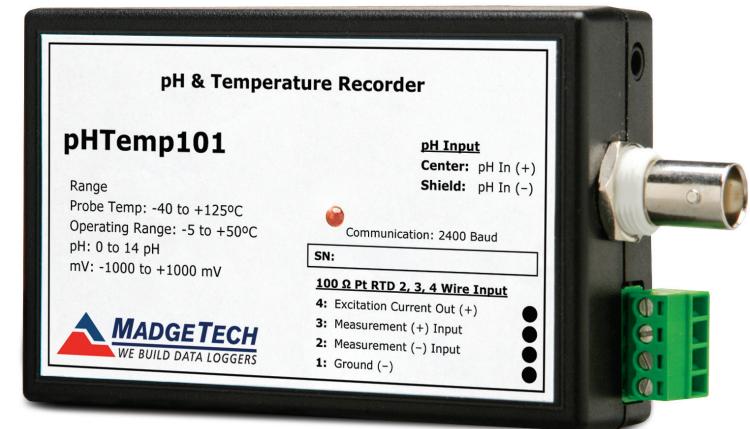
Description	pHTemp101
pH Input Connection	Female BNC jack
pH Range	0 to 14 pH (± 1000 mV)
pH Resolution	0.01 pH
pH Accuracy	± 0.1 pH
Temperature Sensor	2, 3 or 4 Wire 100 Ω , platinum RTD
Probe Temperature Range	0 $^{\circ}$ C to +100 $^{\circ}$ C
Temperature Resolution	0.01 $^{\circ}$ C
Accuracy	± 0.1 $^{\circ}$ C
Memory	13,107/channel
Reading Rate	1 reading every 2 seconds up to 1 reading every 12 hours
Required Interface Package	IFC110 or IFC200
Baud Rate	2,400
Typical Battery Life	1 year
Operating Environment	-5 $^{\circ}$ C to +50 $^{\circ}$ C 0 %RH to 95 %RH (non-condensing)
Materials	ABS plastic
Dimensions	2.4 in x 4.5 in x 1.0 in (61 mm x 115 mm x 26 mm)
Weight	4 oz (120 g)
Approvals	CE

Battery Warning

WARNING: FIRE, EXPLOSION, AND SEVERE BURN HAZARD. DO NOT SHORT CIRCUIT, CHARGE, FORCE OVER DISCHARGE, DISASSEMBLE, CRUSH, PENETRATE OR INCINERATE. BATTERY MAY LEAK OR EXPLODE IF HEATED ABOVE 60 $^{\circ}$ C (140 $^{\circ}$ F).

Specifications subject to change.

See MadgeTech's terms and conditions at www.madgetech.com

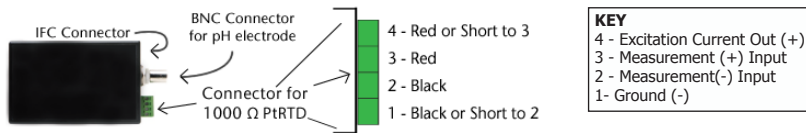


pHTemp101
pH and Temperature Data Logger

Product Notes

Using the pHTEMP101

1. The pH electrode being used is required to have a BNC output connection. Select a probe with an output impedance less than 300 megaohms at the desired temperature.
2. The temperature probe must be a 100 Ω platinum RTD and MadgeTech recommends using a 4-wire configuration. 2 and 3 wire configurations may work, but MadgeTech cannot guarantee the accuracy of the probe.
3. Insure that the probe you select can be connected to the pHTemp101 RTD input by selecting a probe with lead wires.
4. Connect the probes to the data logger.
5. Refer to the description of your pH probe for a calibration procedure.



100 Ω , 2 or 4 wire RTD probes are recommended for the most accurate performance. Most 100 Ω , 3 wire RTD probes will work, but MadgeTech cannot guarantee the accuracy. To determine whether or not the 3-wire RTD probe will work, the resistance between the two same colored wires should be less than 1 Ω . *Note: Please contact the manufacturer of the RTD probe for questions on the resistance*

LEDs

Once started, the LED will flash at the selected reading rate to indicate that the device is running.

Installation Guide

Installing the Interface cable

- IFC200
Insert the device into a USB port. The drivers will install automatically.
- IFC110
Plug the serial cable into the port and verify it is secure.

Installing the software

Insert the Software USB Stick in an open USB port. If the autorun does not appear, locate the drive on the computer and double click on **Autorun.exe**. Follow the instructions provided in the Wizard.

Device Operation

Connecting and Starting the data logger

- Once the software is installed and running, plug the interface cable into the data logger.
- Connect the USB end of the interface cable into an open USB port on the computer.
- The device will appear in the Connected Devices list, highlight the desired data logger.

- For most applications, select **"Custom Start"** from the menu bar and choose the desired start method, reading rate and other parameters appropriate for the data logging application and click **"Start"**. (**"Quick Start"** applies the most recent custom start options, **"Batch Start"** is used for managing multiple loggers at once, **"Real Time Start"** stores the dataset as it records while connected to the logger.)
- The status of the device will change to **"Running"**, **"Waiting to Start"** or **"Waiting to Manual Start"**, depending upon your start method.
- Disconnect the data logger from the interface cable and place it in the environment to measure.

Note: The device will stop recording data when the end of memory is reached or the device is stopped. At this point the device cannot be restarted until it has been re-armed by the computer.

Downloading data from a data logger

- Connect the logger to the interface cable.
- Highlight the data logger in the Connected Devices list. Click **"Stop"** on the menu bar.
- Once the data logger is stopped, with the logger highlighted, click **"Download"**. You will be prompted to name your report.
- Downloading will offload and save all the recorded data to the PC.

Device Maintenance

Battery Replacement

Materials:

- Small Phillips Head Screwdriver
- Replacement Battery (U9VL-J)

- Puncture the center of the back label with the screw driver and unscrew the enclosure.
- Remove the battery by pulling it out of the terminal snaps.
- Snap the new battery into the terminals and verify it is secure.
- Screw the enclosure back together securely.

Note: Be sure not to over tighten the screws or strip the threads.

Recalibration

The pHTemp101 standard calibration is performed at 50 Ω and 150 Ω for the RTD channel and 0 mV and 250 mV for the pH channel.

Note: MadgeTech does not offer calibration of pH inputs in combination with a pH electrode or probe.

Pricing:

Recalibration traceable to NIST	\$110.00
Recalibration	\$70.00

Additional Services:

Verification Point	\$15.00 per point
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Prices and specifications subject to change. See MadgeTech's terms and conditions at www.madgetech.com. To send the devices back, visit www.madgetech.com, select Services then RMA Process.