PHTEMP101
pH and Temperature Recorder

FEATURES

- Low cost
- Miniature size
- User-friendly
- Automatic temperature compensation
- Programmable start time
- Real-time operation
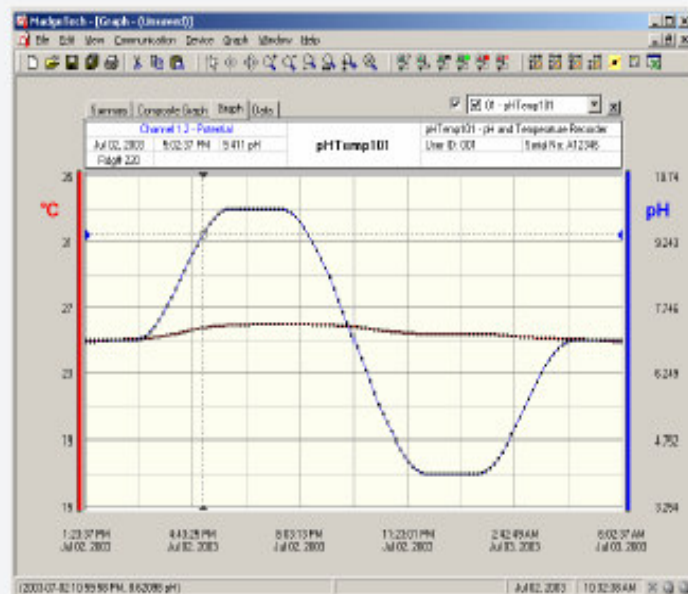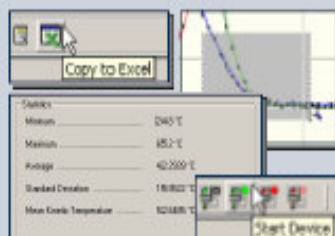- Programmable engineering units
- N.I.S.T. traceable

APPLICATIONS

- Surface and ground water quality monitoring
- Environmental/wetlands
- Industrial influent/effluent
- Water districts and municipal
- Process water quality
- Recreation/park management
- Pulp and paper industry
- Wastewater monitoring

The PHTEMP101 is a miniature, battery powered, stand alone pH and temperature recorder. This is an all-in-one compact, portable, easy to use device that will measure and record up to 13,107 measurements per channel. The PHTEMP101 will directly connect to many commonly used pH electrodes, in addition, the PHTEMP101 will also directly connect to many ORP electrodes. The storage medium is non-volatile solid state memory, providing maximum data security even if the battery becomes discharged. The device can be started and stopped directly from your computer and its small size allows it to fit almost anywhere. The PHTEMP101 makes data retrieval quick and easy. Simply plug it into an empty com port and our user-friendly software does the rest.

SOFTWARE

MadgeTech's Data Recorder Software is an easy to use Windows-based software package that allows the user to effortlessly collect, display and analyze data. A variety of powerful tools allow you to examine, export, and print professional looking data with just a click of the mouse.

PHTEMP101 SPECIFICATIONS

Temperature*

Measurement Range:	-200 °C to +850 °C (0 to +5000 Ω)
Resolution:	0.01 °C (0.001 Ω)
Calibrated Accuracy:	±0.1 °C @25 °C ambient (±0.015 Ω)
Input Connection:	Removable screw terminal; 2,3 or 4-wire interface

pH

Measurement Range:	0.00 to 14.00 pH (-1000 to +1000 mV)
Resolution:	0.01 pH (0.1 mV)
Calibrated Accuracy:	±0.1 pH (±1 mV)
Input Connection:	Female BNC jack
Input Resistance:	10^{12} Ω typical

Start Time:	Software programmable start time and date, up to six months in advance
Real Time Recording:	May be used with PC to monitor and record data in real time

Memory:	13,107 readings per channel
Reading Interval:	1 reading every 2 seconds to 1 every 12 hours
Calibration:	Digital calibration through software
Calibration Date:	Automatically recorded within device
Power:	9V lithium or alkaline battery included
User Replaceable Battery:	1 year typical with lithium battery at 25 °C
Data Format:	Date and time stamped °C, °F, °K, °R, Ω; pH, V, mV, engineering units specified through software
Time Accuracy:	±1 minute/month (at 25 °C; RS232 cable not in use)
Computer Interface:	PC serial or RS232C COM (interface cable required); 2,400 baud
Software:	Windows 95/98/ME/NT/2000/XP based software
Operating Environment:	-5 °C to +50 °C, 5 to 95 %RH (non-condensing)
Dimensions:	4.5" x 2.4" x 1.0" x (114mm x 61mm x 25mm)
Weight:	4 oz (120 g)

*Temperature specifications based on ideal 100 Ω Pt RTD compliant with IEC 751 (1983) and ITS-90, 5000 Ω FSR

**For use in harsh environments, this device must be well protected from weather, steam and harsh chemicals

PHTEMP101 SOFTWARE FEATURES

Multiple Graphs:	Simultaneously analyze data from several units or deployments; easily switch to a single data series
Real-Time Recording:	Collect and display data in real-time while continuing to log
Graphical Cursor:	One click displays readings by time, value, parameter or sample number
Data Table:	Instantly access tabular view for detailed dates, times, values, and annotations
Scaling Options:	Autoscale function fits data to the screen, or allows user to manually enter their own values
Formatting Options:	Change colors, line styles, plotting options, show or hide channels in an instant

Statistics:	Calculate averages, min, max, standard deviation, and mean kinetic temperature with the touch of a button
Export Data:	Export data in a variety of common formats, or switch to Excel with a single click
Calibration:	Fully digital calibration function automatically stores parameters in device
Logger Configuration:	Easy set up and launch of data loggers with immediate or delayed start, preferred sample rate, and device ID
Communications:	Automatically sets up communications port, or lets user set configuration
Printing:	Automatically print graphical or tabular data

***As part of our commitment to continuous product improvement, MadgeTech reserves the right to change product specifications without notice

ORDERING INFORMATION

Model	Description
PHTEMP101	pH and Temperature Recorder
IFC101	Software, manual and 9-pin computer interface cable
N.I.S.T. Cert	N.I.S.T. Calibration Certificate

ASK ABOUT OUR OTHER DATA RECORDERS

Temperature	pH
Humidity	Level
Pressure	Shock/Vibration
Bridge/Strain	Submersible
Current	Intrinsically Safe
Pulse/Event	RF Transmitters
Voltage	Multi-parameter