DATASHEET

PRHTemp101A

MadgeTech

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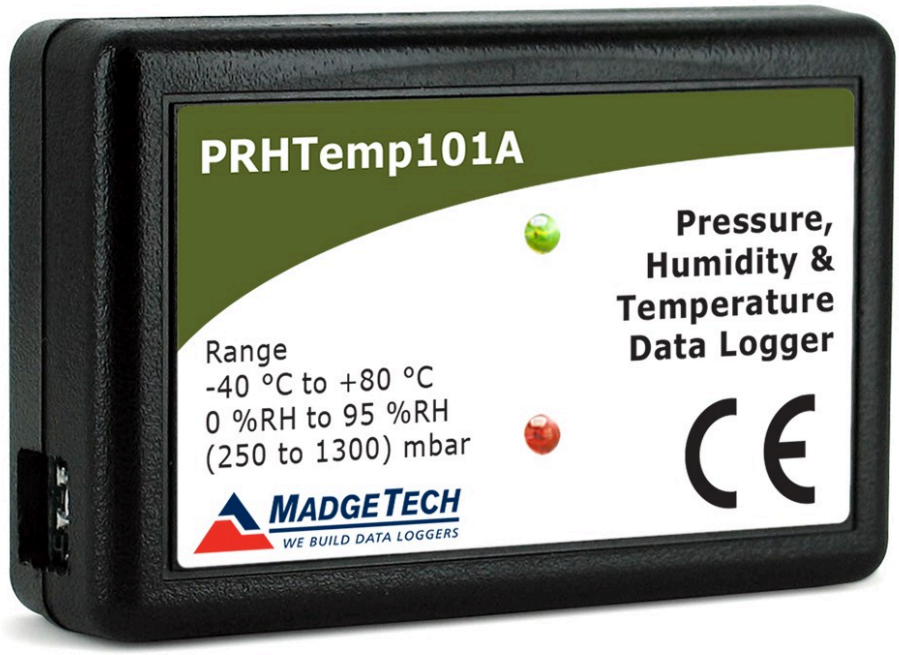
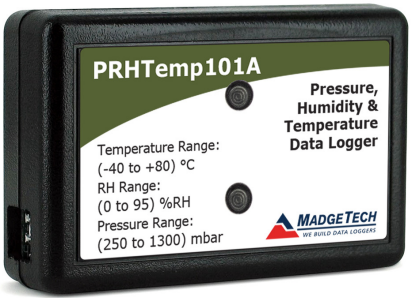


MADGETECH
WE BUILD DATA LOGGERS

PRHTemp101A

Pressure, Humidity and Temperature Data Logger



The PRHTemp101A is a pressure, relative humidity and temperature data logger, specifically designed to be compact and portable for use in a variety of applications such as museum and archive preservation, shipping and transportation, warehouse monitoring, HVAC and more.

The PRHTemp101A is MadgeTech's latest addition to the 101A series of low cost, state-of-the-art data loggers. MadgeTech has taken the lead in offering the most advanced, affordable, battery powered data loggers in the world today.
The PRHTemp101A offers a 10 year battery life, 1 second reading rate, multiple start/stop functions, ultra-high speed download capability, optional memory wrap, battery life indicator, optional password protection, programmable high-low alarms and more.

Using the MadgeTech Software, starting, stopping and downloading from the PRHTemp101A is simple and easy for users. Graphical, tabular and summary data is provided for analysis and data can be viewed in °C, °F, °R, K, for the temperature channel, %RH, mg/mL, Dew Point, for the humidity channel and mbar, PSI, inHg, mmHg, atm, Torr, Pa, m, kPa, MPa for the pressure channel. The data can also be automatically exported to Excel® for further calculations.

FEATURES

- 10 Year Battery Life
- Multiple Start/Stop Function
- Ultra High Speed Download
- Memory Wrap
- Battery Life Indicator
- Optional Password Protection
- Programmable High and Low Alarms
- CE Compliant
- Field Upgradeable

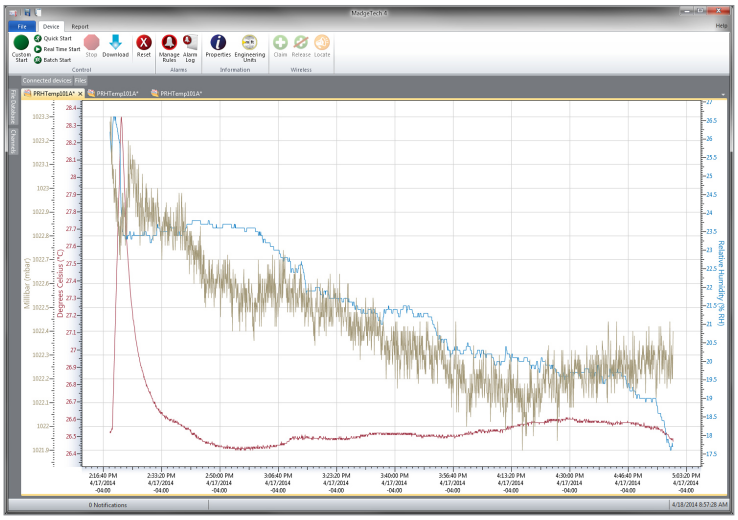
BENEFITS

- Simple Setup and Installation
- Minimal Long-Term Maintenance
- Long-Term Field Deployment
- Compact and Portable

APPLICATIONS

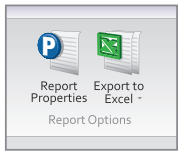
- Museum, Archive and Gallery Artwork Preservation
- Warehouse Monitoring
- Measuring Barometric Pressure in High-Rise Buildings (Elevators)
- Shipping and Transportation
- HVAC
- Clean Rooms
- Clinical Laboratories
- Altitude Validation and Studies

MadgeTech 4 Software Features

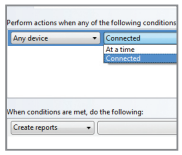


Graph View

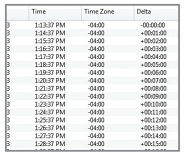
- Multiple graph overlay
- Statistics
- Digital calibration
- Zoom in/ zoom out
- Lethality equations (F0, PU)
- Mean Kinetic Temperature
- Full time zone support
- Data annotation
- Min./Max./Average lines
- Summary view



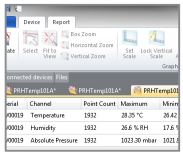
Export to Excel



Automation



Tabular Data View



Statistics

Specifications

Specifications are subject to change without notice. Specific warranty remedy limitations apply. Call **(603) 456-2011** or go to **madgetech.com** for details.

GENERAL

Start Modes	Immediate start Delay start up to 18 months Multiple pushbutton start/stop
Stop Modes	Manual through software Timed (specific date and time)
Multiple Start/Stop Mode	Start and stop the device multiple times without having to download data or communicate with a PC
Real Time Recording	May be used with PC to monitor and record data in real time
Password Protection	An optional password may be programmed into the device to restrict access to configuration options. Data may be read without the password.
Memory	523,776 readings 261,888 readings (manual or trigger mode)
Wrap Around	Yes
Reading Rate	1 reading every second up to 1 reading every 24 hours
Alarm	Programmable high and low limits; alarm is activated when recording environment reaches or exceeds set limits (Pressure channel only)
LEDs	2 status LEDs
Calibration	Digital calibration through software
Calibration Date	Automatically recorded within device
Battery Type	3.6 V lithium battery included; user replaceable
Battery Life	10 years typical at a 15 minute reading rate
Data Format	Date and time stamped °C, °F, °R, K, %RH, mg/mL, Dew Point, mbar, PSI, inHg, mmHg, atm, Torr, Pa, kPa, m, MPa units specified through software
Time Accuracy	±1 minute/month at 25 °C (77 °F)
Computer Interface	USB (interface cable required); 115,200 baud
Operating System Compatibility	Windows XP SP3 or later
Software Compatibility	Standard Software version 2.03.06 or later Secure Software version 4.1.3.0 or later
Operating Environment	-40 °C to +80 °C (-40 °F to +176 °F) 0 %RH to 95 %RH non-condensing, 0.002 PSIA to 100 PSIA
Dimensions	1.4 in x 2.1 in x 0.6 in (35 mm x 54 mm x 15 mm)
Material	Polycarbonate
Weight	0.8 oz (24 g)
Approvals	CE

PRESSURE

Pressure Sensor	Piezoresistive
Pressure Range	260 mbar to 1260 mbar
Pressure Resolution	0.02 mbar
Calibrated Accuracy	±10 mbar (0 °C to 55 °C)

HUMIDITY

Humidity Sensor	Capacitive Polymer
Humidity Range	0 %RH to 95 %RH
Humidity Resolution	0.1 %RH
Calibrated Accuracy	±3.0 %RH
Specified Accuracy Range	25 %RH to 75 %RH +20 °C to +40 °C Hysteresis Error 1 % typical, 3 % Maximum

TEMPERATURE

Temperature Sensor	Internal Semiconductor
Temperature Range	-40 °C to +80 °C (-40 °F to +176 °F)
Temperature Resolution	0.01 °C (0.02 °F)
Calibrated Accuracy	±0.5 °C (±0.9 °F) from 0 °C to +55 °C (+32 °F to +131 °F) ±1.0 °C (±1.8 °F) from -40 °C to 0 °C (-40 °F to +32 °F) and +55.01 °C to +80 °C (+131.01 °F to +176 °F)

BATTERY WARNING: FIRE, EXPLOSION AND SEVERE BURN HAZARD. DO NOT RECHARGE, DISASSEMBLE, HEAT ABOVE 100 °C (212 °F), INCINERATE, CRUSH, OR EXPOSE CONTENTS TO WATER.

Ordering Information

PRHTemp101A	PN 901052-00	Pressure, Humidity and Temperature Data Logger
IFC200	PN 900298-00	USB interface cable
LTC-7PN	PN 900352-00	Replacement battery for the PRHTemp101A

For Quantity Discounts call (603) 456-2011 or email **sales@madgetech.com**

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