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WE BUILD DATA LOGGERS

Product Information Card

PRTemp1000

Part Number	PRTemp1000
Temperature Sensor	Internal semiconductor
Temperature Range	–40 to +80°C
Temperature Resolution	0.1°C
Calibrated Accuracy	±0.5°C
Pressure Range	*See Table for Details
Pressure Resolution	
Pressure Accuracy	
Memory	16,383/channel
Sample Rate	2 seconds to 12 hours
Units	PSIA(G), inches, altitude, Torr, mmHg, Pascals
Required Interface Package	IFC110 or IFC200
Baud Rate	2,400
Typical Battery Life	1 year
Operating Environment	–40 to +80°C, 0 to 100%RH
Material	303 stainless steel
Dimensions	6.4" x 1.25" dia. (163mm x 32mm dia.)
Approvals	CE

*PRTemp1000 Range, Accuracy and Resolution

Range (PSI)	0-30	0-100	0-300	0-500	0-1000	0-5000
Accuracy	2% FSR, 0.25% @ 25°C typical					
Resolution (PSI)	0.002	0.005	0.02	0.05	0.05	0.2

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 80°C (176°F).

Specifications subject to change.
See MadgeTech's terms and conditions at www.madgetech.com

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PRTemp1000
Rugged Pressure and Temperature Data Logger

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Product Notes

Getting Started

To access the COM Port for the interface cable, unscrew the key-ring end cap.

Pressure Sensor

To use the pressure sensor for gauge measurements, screw the ¼" male NPT fitting into the pipe to be measured with a 9/16" wrench. The NPT fitting can be used for absolute and submersible applications, but in those cases it's preferable to use the submersible fitting.

With NPT fitting

With submersible fitting

Submergibility

The PRTemp1000 is fully submergible and is rated IP68. It can be placed in environments with up to 230 feet (70m) of water.

O-Rings

O-ring maintenance is a key factor when properly caring for the PRTemp1000. The o-rings ensure a tight seal and prevent liquid from entering the inside of the device.
Please refer to the application note "O-Rings 101: Protecting Your Data", found on the MadgeTech website, for information on how to prevent O-ring failure.

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 CD in the CD-ROM Drive. 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.

Connecting the data logger

- Once the software is installed and running, plug the interface cable into the data logger.
- Click the **Communication Menu**, then **Auto Configure Port**.
- After a moment, a box will appear stating a device has been found.
- Click **OK**. The **Device Status** box will appear. Click **OK**.
- At this point, communications have been configured for your logger. These settings can be found under the **Communication Menu**.

Note: For additional installation instructions refer to your "Data Logger & Software Operating Manual".

Device Operation

Starting the data logger

- Click **Device Menu** then **Start Device**.
- Choose the desired start method.
- Choose the start parameters by selecting a **Reading Rate** suitable for your application.
- Enter in any other desired parameters and click **Start**.
- A box will appear stating the data logger has been started. Click **OK**.
- 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 data logger to the interface cable.
- Click the **Device Menu** then **Read Device Data**. This will offload all recorded data onto the PC.

Device Maintenance

Battery Replacement

Materials: Small Needle Nose Pliers and a Replacement Battery (TLH-5902)

- Carefully unscrew the sensor end cap and pull the electronics out.
- The battery is the purple cylinder on the circuit board.
- Gently pull out the old battery.
- Insert the new battery one lead at a time, using pliers to fully push the leads into the sockets. The battery should be flat against the circuit board, and the positive lead should be closest to the communications jack.
- Ensure the circuit board is inserted into the white plastic bushing. The sensor cable should not be twisted, or kinked. From the connection to the circuit board, it should run up towards the battery, then down to the sensor.
- Insert the electronics back into the tube and carefully screw the cap on.

Recalibration

The PRTemp1000 standard temperature calibration is one point at 25°C. The pressure calibration is depend on the range.

Range (PSIA)	0-30	0-100	0-300	0-500	0-1000	0-5000
Range (PSIG)	0-30	0-100	0-300	0-500	-	-
Calibration Point (PSIA)	~14.7 and 27-30	~14.7 and 90-100	~14.7 and 270-300	~14.7 and 270-300	~14.7 and 450-500	~14.7 and 450-500

Pricing:
Recalibration traceable to NIST
Recalibration

Additional:
Verification Point

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.