PRTemp1000D
Differential Pressure and
Temperature Data Logger

PRODUCT USER GUIDE

To view the full MadgeTech product line, visit our website at **madgetech.com**.

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PRODUCT USER GUIDE

Product Overview

The PRTemp1000D is a rugged pressure recorder to accurately monitor and record pressure and temperature at user programmable reading intervals. The rugged stainless steel design allows for the device to be placed in harsh environments, which makes it well suited for use with air conditioning systems, chilled water, hot water, air, gas, oil and steam pressure systems.

Water Resistance

The PRTemp1000D is weather resistant and rated IP63.

## Installation Guide

Installing the Software

The Software can be downloaded from the MadgeTech website at **madgetech.com**. Follow the instructions provided in the Installation Wizard.

Installing the Interface Cable

To access the COM Port for the interface cable, unscrew the key-ring end cap. Connect the device into a USB port with the interface cable. The drivers will install automatically. Screw the end cap back onto the data logger until the o-ring cannot be seen, before deploying the data logger.

Installing the Data Logger

Due to the potential for line pressure to exceed proof pressure, high line pressure must be applied simultaneously to each side of the sensor. To the right is a diagram of a recommended installation. Pressure snubbers are recommended to prevent damage from water hammers or other high intensity pressure events.
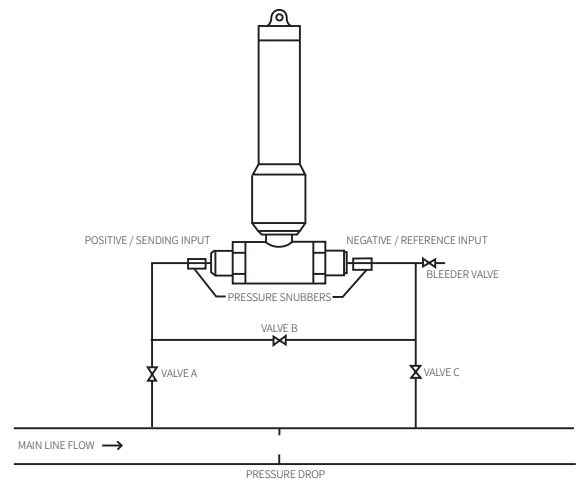
Applying Line Pressure

- Install sensor with valves "A" and "C" closed
- Open bypass valve "B"
- Crack bleeder valve
- Slowly open valve "A" to apply pressure
- Close bleeder valve
- Open valve "C"
- Close bypass valve "B"

Removing Line Pressure

- Open bypass valve "B"
- Close valve "C"
- Close valve "A"
- Crack bleeder valve
- Allow pressure to equalize with ambient
- Uninstall sensor

Ordering Information

- 901166-00 — PRTemp1000D-100
- 901167-00 — PRTemp1000D-30
- 901168-00 — PRTemp1000D-300
- 901169-00 — PRTemp1000D-500
- 900298-00 — IFC200
- 901747-00 — TLH-5902 Replacement Battery

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Device Operation

Connecting and Starting the Data Logger

1. Once the software is installed and running, plug the interface cable into the data logger.

2. Connect the USB end of the interface cable into an open USB port on the computer.

3. The data logger will automatically appear under **Connected Devices** within the software.

4. 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.)*

5. The status of the device will change to **Running**, **Waiting to Start** or **Waiting to Manual Start**, depending upon your start method.

6. 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

1. Place the logger into the docking station.

2. Highlight the data logger in the **Connected Devices** list. Click **Stop** on the menu bar.

3. Once the data logger is stopped, with the logger highlighted, click **Download**.

4. Downloading will offload and save all the recorded data to the PC.

Device Maintenance

O-Rings

O-ring maintenance is a key factor when properly caring for the PRTemp1000D. 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 at **madgetech.com**, for information on how to prevent O-ring failure.

Battery Replacement

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

1. Carefully unscrew the sensor end cap and pull the electronics out.

2. The battery is the purple cylinder on the circuit board.

3. Gently pull out the old battery.

4. 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.

5. 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.

6. Insert the electronics back into the tube and carefully screw the cap on.

Recalibration

MadgeTech recommends annual recalibration. To send devices back for calibration, visit **madgetech.com**.

NEED HELP?

Product Support & Troubleshooting:
- Visit our Resources online at **madgetech.com/resources**.
- Contact our friendly Customer Support Team at (603) 456-2011 or **support@madgetech.com**.

MadgeTech 4 Software Support:
- Refer to the built-in help section of the MadgeTech 4 Software.
- Download the MadgeTech 4 Software Manual at **madgetech.com**.
- Contact our friendly Customer Support Team at (603) 456-2011 or **support@madgetech.com**.

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