Description	PRTemp140
Pressure Sensor	Strain Gauge
Pressure Range	0 bar to 5 bar
Pressure Resolution	0.0001 bar
Calibrated Accuracy	±0.03 bar
Temperature Coefficient	0.03 bar accuracy applies from +20 °C to +140 °C
Temperature Sensor	Resistance Temperature Detector (RTD)
Temperature Range	-20 °C to +140 °C (-4 °F to +284 °F)
Temperature Resolution	0.01 °C
Calibrated Accuracy	±0.1 °C
Memory	32,767 readings
Reading Rate	1 reading every second up to 1 reading every 24 hours
Battery Life	2 years typical (1 minute reading rate)
Required Interface Package	IFC400 or IFC406 USB docking station required
Operating System Compatibility	XP SP3/Vista/Windows 7/Windows 8
MadgeTech Software Compatibility	Standard software version 4.2.3.0 or later Secure software version 4.2.2.0 or later
Operating Environment	-20 °C to +140 °C (-4 °F to +284 °F), 0 %RH to 100 %RH, 0.002 PSIA to 100 PSIA
Material	316 Stainless Steel
Dimensions (Body)	**Flush Top:** 1.98 in x 0.97 in x 0.97 in (50.2 mm x 24.6 mm x 24.6 mm) **NPT Top:** 2.3 in x 0.97 in x 0.97 in (58.2 mm x 24.6 mm x 24.6 mm)
Weight	**Flush Top:** 90 g (3.2 oz) **NPT Top:** 100 g (3.5 oz)
IP Rating	IP68
Approvals	CE

Battery Warning
WARNING: FIRE, EXPLOSION, AND SEVERE BURN HAZARD. DO NOT SHORT CIRCUIT, CHARGE, FORCE OVER DISCHARGE, CRUSH, PENETRATE OR INCINERATE. BATTERY MAY LEAK OR EXPLODE IF HEATED ABOVE 150 °C (302 °F).

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

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PRTemp140

NPT Top

Flush Top

PRTemp140
High Temperature and Pressure Data Logger
Flush Top or NPT Port Top Options

![MadgeTech - WE BUILD DATA LOGGERS]

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

Product Notes

The PRTemp140 is a pressure and high temperature data logger all in one, created specifically for use in autoclave validation, mapping studies and pressurized processes. Featuring the familiar body style of the 140 series of data loggers and made of rugged stainless steel, this dual purpose device is less than 2.5 inches in length, allowing it to fit discretely inside small spaces. The PRTemp140 is able to measure and record temperatures from -20 °C to 140 °C, and pressure from 0 bar to 5 bar, accommodating a wide range of applications even in the harshest conditions.

Submergibility

The PRTemp140 is fully submersible and is rated IP68.

O-Rings

O-ring maintenance is a key factor when properly caring for the PRTemp140. 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.

Note: This product is rated for use up to 140 °C. Please heed the battery warning. The product will explode if exposed to temperatures above 140 °C.

Installation Guide

Installing the Interface cable

- IFC400 or IFC406
   Refer to the "Quick Start Guide" included in the package.

Installing the software

Insert the MadgeTech 4 Software Flash Drive into an open USB port on the PC. If the autorun does not appear, locate the drive on the computer and double click on **Autorun.exe**. Follow the instructions provided in the Installation Wizard to install the MadgeTech Software. Software can also be downloaded from the MadgeTech website at the following link: www.madgetech.com/software-download.

Device Operation

Connecting and Starting the data logger

- Once the software is installed and running, plug the interface cable into the docking station.
- Connect the USB end of the interface cable into an open USB port on the computer.
- Place the data logger into the docking station.
- The data logger will automatically appear under **Connected Devices** within the software.
- 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 docking station 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, unless user selectable memory wrap is enabled. At this point the device cannot be restarted until it has been re-armed by the computer.

Downloading data from a data logger

- Place the logger into the docking station.
- 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:

ER1425S-HT Battery
- Unscrew the bottom of the logger and remove the battery.
- Place the new battery into the logger. Note the polarity of the battery.
- Screw the cover back onto the logger.

Recalibration

The PRTemp140 standard calibration points are +30 °C and +140 °C for the temperature channel and 1 bar, 2.5 bar and 5 bar for the pressure channel.

Pricing:

Recalibration traceable to NIST	$110.00
Recalibration	$70.00

Call for custom calibration options to accommodate specific application needs.
Prices and specifications subject to change. See MadgeTech's terms and conditions at www.madgetech.com
To send devices to MadgeTech for calibration, service or repair, please use the MadgeTech RMA Process by visiting www.madgetech.com, then under the services tab, select RMA Process.