

# PRTEMP140

## HIGH TEMPERATURE & PRESSURE DATA LOGGER



### Features

- Operates from -20 °C to +140 °C
- Submersible (IP68)
- User Replaceable Battery
- Rugged Stainless Steel Body
- Programmable Start Time
- CE Compliant
- Software Battery Life Indicator
- 1/8 inch NPT Pressure Port
- Wrench Flats (NPT Model)

### Benefits

- Simple Setup and Installation
- Minimal Long-Term Maintenance
- Compatible with 1/8 inch NPT Adaptors and Fittings

### Applications

- Autoclave Validation and Mapping
- Steam Sterilization
- Canning and Cooking Pouches
- Pressurized Process Reactors
- Beverage Production, Including Wine and Soda

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 data logger downloads temperature and pressure data simultaneously and displays the combined results in a single graph, simplifying data collection and analysis and eliminating unnecessary steps for the user.

This data logger 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.

The memory capacity on the PRTemp140 stores up to 32,700 time and date stamped readings and will retain data even if the battery becomes discharged.

The PRTemp140 utilizes the latest MadgeTech data logger software, making the entire process from starting the device to analyzing data, efficient and easy for the user. Downloaded data can be viewed in various formats including graphic and tabular and can also be exported to Excel® for further analysis and calculations.



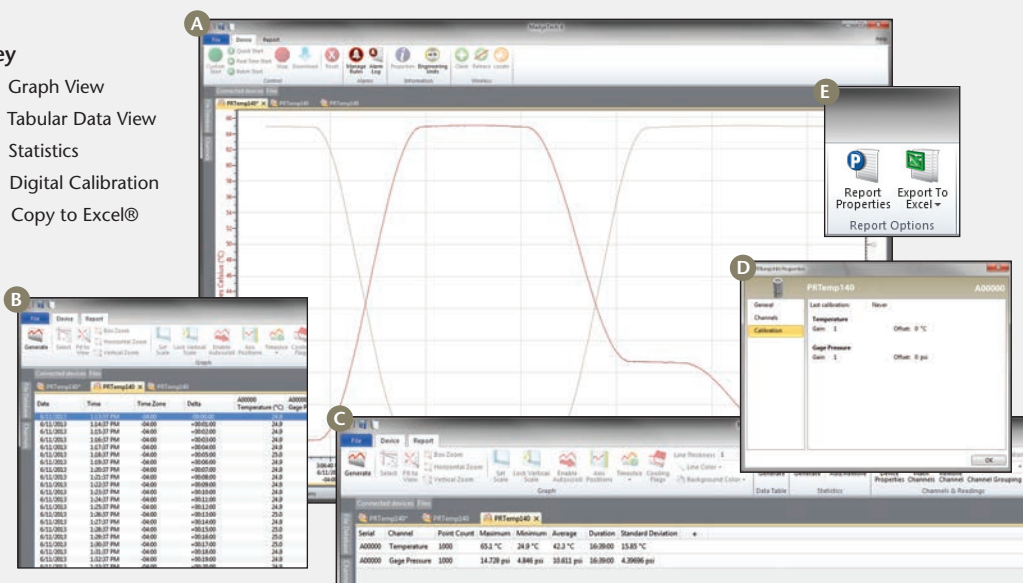
Flush Top

NPT Top

## MADGETECH DATA LOGGER SOFTWARE

### Key

- A** Graph View
- B** Tabular Data View
- C** Statistics
- D** Digital Calibration
- E** Copy to Excel®



### Software Features:

- 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
- Data table view
- Automatic report generation
- Summary view
- Multilingual

# PRTEMP140 SPECIFICATIONS\*

\*SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE. SPECIFIC WARRANTY REMEDY LIMITATIONS APPLY.

## Pressure

|                      |                               |
|----------------------|-------------------------------|
| Pressure Sensor:     | Strain Gauge                  |
| Pressure Range:      | 0 bar to 5 bar                |
| Pressure Resolution: | 0.0001 bar                    |
| Calibrated Accuracy: | ±0.03 bar (+20 °C to +140 °C) |

## Temperature

|                         |                                       |
|-------------------------|---------------------------------------|
| 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 (+20 °C to +140 °C)           |

## General

|                      |                                                                                                                                            |
|----------------------|--------------------------------------------------------------------------------------------------------------------------------------------|
| Start Modes:         | <ul style="list-style-type: none"> <li>Immediate start</li> <li>Delay start up to 18 months in advance</li> </ul>                          |
| Stop Modes:          | Manual or Timed (specific date and time)                                                                                                   |
| Real Time Recording: | May be used with PC to monitor and record data in real time                                                                                |
| Memory:              | 32,767 readings                                                                                                                            |
| Password Protection: | An optional password may be programmed into the device to restrict access to configuration options. Data may be read without the password. |

**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)

|                                   |                                                                                                                                                                                                                 |
|-----------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Reading Rate:                     | 1 reading every second up to 1 reading every 24 hours                                                                                                                                                           |
| Calibration:                      | Digital calibration through software                                                                                                                                                                            |
| Calibration Date:                 | Automatically recorded within device                                                                                                                                                                            |
| Memory Wrap:                      | Yes                                                                                                                                                                                                             |
| Data Formats:                     | °C, °F, °R, K, bar, mbar, PSI, inHg, mmHg, atm, Torr, Pa, kPa, MPa                                                                                                                                              |
| Battery Life:                     | 2 years typical (1 minute reading rate)                                                                                                                                                                         |
| Battery Type:                     | 3.6V high-temperature lithium battery included; <b>user replaceable</b>                                                                                                                                         |
| Time Accuracy:                    | <ul style="list-style-type: none"> <li>±1 min/mth @ 25 °C</li> <li>Extended Operation: ±20 mins/mth at 140 °C (±450 ppm)</li> </ul>                                                                             |
| Required Interface Package:       | IFC400 or IFC406 USB docking station required                                                                                                                                                                   |
| Operating System Compatibility:   | XP SP3/Vista/Windows 7/Windows 8                                                                                                                                                                                |
| MadgeTech Software Compatibility: | <ul style="list-style-type: none"> <li>Standard software version 4.2.3.0 or later</li> <li>Secure software version 4.2.2.0 or later</li> </ul>                                                                  |
| Operating Environment:            | -20 °C to +140 °C (-4 °F to +284 °F), 0 %RH to 100 %RH, 0.002 PSIA to 100 PSIA                                                                                                                                  |
| Dimensions:                       | <ul style="list-style-type: none"> <li><b>Flush Top:</b> 1.98 in x 0.97 in x 0.97 in (50.2 mm x 24.6 mm x 24.6 mm)</li> <li><b>NPT Top:</b> 2.3 in x 0.97 in x 0.97 in (58.2 mm x 24.6 mm x 24.6 mm)</li> </ul> |
| Weight:                           | <ul style="list-style-type: none"> <li><b>Flush Top:</b> 90 g (3.2 oz)</li> <li><b>NPT Top:</b> 100 g (3.5 oz)</li> </ul>                                                                                       |
| Material:                         | 316 Stainless Steel                                                                                                                                                                                             |
| IP Rating:                        | IP68                                                                                                                                                                                                            |
| Approvals:                        | CE                                                                                                                                                                                                              |

## ORDERING INFORMATION

| MODEL                   | DESCRIPTION                                                             |
|-------------------------|-------------------------------------------------------------------------|
| PRTemp140-NPT           | High Temperature and Pressure Data Logger with NPT Port Top             |
| PRTemp140-LVL           | High Temperature and Pressure Data Logger with Flush Top                |
| IFC400                  | Docking station with USB cable, software and manual                     |
| IFC406                  | 6 Port, Multiplexer docking station with USB cable, software and manual |
| ER1425S-HT              | Replacement battery for the PRTemp140                                   |
| Calibration Certificate | Calibration Certificate available for data logger                       |

**ASK ABOUT OUR OTHER DATA LOGGERS**

- Temperature
- Humidity
- Pressure
- pH
- Level
- Shock
- LCD Display
- Pulse/Event/State
- Current
- Voltage
- Wireless
- Intrinsically Safe
- Spectral Vibration
- Motion