

# PR140 HIGH TEMPERATURE PRESSURE DATA LOGGER



## Features

- Operates up to 140°C
- Submersible (IP68)
- N.I.S.T. Traceable
- User Replaceable Battery
- Rugged
- Programmable Start Time
- Engraved Label
- CE Compliant
- Software Battery Life Indicator
- 1/8" NPT Pressure Port
- Wrench Flats

## Benefits

- Simple Setup and Installation
- Compatible with 1/8" NPT Adaptors and Fittings

## Applications

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

The PR140 is a pressure data logger designed for use in autoclave validation and mapping. This rugged device can withstand temperatures up to 140°C and is completely submersible (IP68).

The PR140 is built with a precision stainless steel pressure gauge. The device has an accuracy of  $\pm 0.03$  Bar ( $\pm 0.435$  PSI), which can be achieved over a wide temperature range, from 20°C to +140°C (68°F to 284°F). The PR140 can be programmed to take readings as often as once per second (1Hz), and has non-volatile memory that can store up to 32,700 measurements.

The 1/8" NPT pressure port featured on the device allows for compatibility with a variety of fittings and adapters. This is ideal for calibration purposes, as well as connecting the data logger to measure process pressure systems.

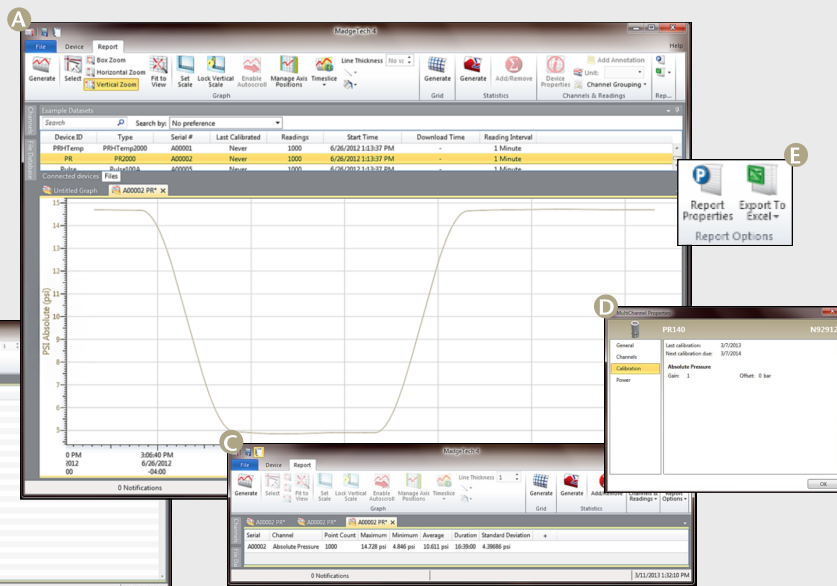
The PR140 is easy to use. Simply place it in the IFC400 docking station, connect to a computer, and the device can be started, stopped or downloaded using the MadgeTech software. Graphical, tabular and summary data is provided for analysis and can be viewed in PSIA, mmHg, bar, Torr and kPa. The data can also be automatically exported to Excel® for further calculations.



## MADGETECH DATA LOGGER SOFTWARE

### Key

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



### Software Features:

- Multiple graph overlay
- Statistics
- Digital calibration
- Zoom in/ zoom out
- Lethality equations ( $F_0$ , PU)
- Mean Kinetic Temperature
- Full time zone support
- Data annotation
- Min./Max./Average lines
- Data table view
- Automatic report generation
- Summary view
- Multilingual

# PR140 SPECIFICATIONS\*

|                               |   |
|-------------------------------|---|
| <b>Pressure Sensor</b>        | Semiconductor Strain gauge  |
| <b>Pressure Range</b>         | 0 to 5 Bar (0 to 72.5 PSIA)   |
| <b>Pressure Resolution</b>    | 0.1m Bar (0.0015 PSIA)  |
| <b>Calibrated Accuracy</b>    | ±0.03 Bar (± 0.435 PSI)<br>(20°C to +140°C/68°F to 284°F)             |
| <b>Pressure Response Time</b> | 0.1ms (10 to 90% FSR)   |
| <b>Repeatability</b>          | ±0.5% FSR; ±0.2% typical  |
| <b>Reading Rate</b>           | 1 second to once every 24 hours                                       |
| <b>Memory</b>                 | 32,700 readings; software configurable memory wrap                    |
| <b>Start Modes</b>            | Software programmable immediate start or delay start up to six months |
| <b>Real Time Recording</b>    | May be used with PC to monitor and record data in real-time           |
| <b>Calibration</b>            | Digital calibration through software                                  |
| <b>Calibration Interval</b>   | Monthly calibration recommended                                       |

|                              |   |
|------------------------------|---|
| <b>Battery Type</b>          | 3.6V lithium battery included;<br><b>user replaceable</b>   |
| <b>Battery Life</b>          | 2 years typical, 1 minute reading rate at 25°C (77°F)   |
| <b>Data Format</b>           | PSIA, bar, mbar, atm, Torr, Pa, kPa, MPa, mmHg, inHg, inH2O, mH2O, ft, m  |
| <b>Time Accuracy</b>         | ±1 minutes/month at 20°C  |
| <b>Computer Interface</b>    | USB (IFC400 interface cable required);<br>125,000 baud  |
| <b>Software</b>              | XP SP3/Vista/Windows 7/Windows 8  |
| <b>Operating Environment</b> | -20°C to +140°C (-4°F to +284°F),<br>0 to 100% RH<br><i>Note: The PR140 may be used above 60°C for up to 8 hours, per 24 hour period.</i> |
| <b>Dimensions</b>            | Flush Top: 2.0" x 1.0" dia.<br>(50.8mm x 25.4mm dia.)<br>NPT Pressure Port Top: 2.3" x 1.0" dia.<br>(58.2mm x 25.4mm dia.)                |
| <b>Submersible</b>           | Yes (IP68)  |
| <b>Enclosure</b>             | Stainless Steel   |
| <b>Weight</b>                | 3oz (85g)   |
| <b>Approvals</b>             | 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 ARE SUBJECT TO CHANGE WITHOUT NOTICE. SPECIFIC WARRANTY REMEDY LIMITATIONS APPLY. CALL 1-603-456-2011 OR GO TO WWW.MADGETECH.COM FOR DETAILS.

## ORDERING INFORMATION

| MODEL      | DESCRIPTION   | PRICE (U.S.) |
|------------|---|--------------|
| PR140-LVL  | Pressure Data Logger, with Flush Top                | \$999.00     |
| PR140      | Pressure Data Logger, with NPT Pressure Port Top    | \$999.00     |
| IFC400     | Docking station with USB cable, software and manual | \$120.00     |
| ER1425S-HT | Replacement battery for the PR140                   | \$50.00      |
| *NIST      | N.I.S.T. Calibration Certificate                    | \$60.00      |

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

For Quantity Discounts call 603-456-2011 or email [sales@madgetech.com](mailto:sales@madgetech.com)

\*To order the product with the N.I.S.T. certificate add **-CERT** to the end of the part number and add \$60.00 to the price.