# PR140 HIGH TEMPERATURE PRESSURE DATA LOGGER



#### **Features**

- Operates up to 140 °C
- Submersible (IP68)
- NIST Traceable
- User Replaceable Battery
- Rugged
- Programmable Start Time
- Engraved Label
- CE Compliant
- · Software Battery Life Indicator
- 1/8 inch NPT Pressure Port
- Wrench Flats

#### Benefits

- Simple Setup and Installation
- Compatible with 1/8 inch 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 (+284 °F) and is completely submersible (IP68).

The PR140 is built with a precision stainless steel pressure gauge. The device has an accuracy of ±0.03 Bar (±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 (1 Hz), and has non-volatile memory that can store up to 32,700 measurements.



The 1/8 inch 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 or IFC406 docking station (*sold separately*), 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



### 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

# PR140 SPECIFICATIONS\*

Pressure Sensor:	Semiconductor Strain gauge
Pressure Range:	0 to 5 Bar (0 to 72.5 PSIA)
Pressure Resolution:	0.0001 Bar
Calibrated Accuracy:	±0.03 Bar (± 0.435 PSI) (20 °C to +140 °C/68 °F to 284 °F)
Pressure Response Time:	0.1 ms (10 %FSR to 90 %FSR)
Repeatability:	±0.5 %FSR; ±0.2 % typical
Reading Rate:	1 reading every second up to 1 reading every 24 hours
Memory:	32,700 readings; software configurable memory wrap
Start Modes:	Software programmable immediate start or delay start up to six months
Real Time Recording:	May be used with PC to monitor and record data in real time
Calibration:	Digital calibration through software
Calibration Interval:	Yearly calibration recommended

BATTERY 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  $^{\circ}$ C (302  $^{\circ}$ F).

Battery Type: 3.6V lithium battery included; user replaceable  Battery Life: 2 years typical, 1 minute reading rate at 25 °C (77 °F)  Data Format: PSIA, bar, mbar, atm, Torr, Pa, kPa, MPa, mmHg, inHg, inH2O, mH2O, ft, m  Time Accuracy: ±1 minutes/month at 20 °C  Computer Interface: USB (IFC400 or IFC406 interface cable required); 125,000 baud  Software: XP SP3/Vista/Windows 7/Windows 8 (MadgeTech 4 only)  -20 °C to +140 °C (-4 °F to +284 °F), 0 %RH to 100 %RH 0.002 PSIA to 100 PSIA Note: The PR140 may be used above 60 °C for up to 8 hours, per 24 hour period.  Pilush Top: 2.0 in x 1.0 in dia. (50.8 mm x 25.4 mm dia.)  NPT Pressure Port Top: 2.3 in x 1.0 in dia. (58.2 mm x 25.4 mm dia.)  Submersible: Yes (IP68)  Enclosure: Stainless Steel  Weight: 3 oz (85 g)  Approvals: CE		
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# ORDERING INFORMATION

MODEL	DESCRIPTION
PR140-LVL	Pressure Data Logger, with Flush Top
PR140	Pressure Data Logger, with NPT Pressure Port 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 PR140
*NIST	NIST Calibration Certificate

