MADGETECH
WE BUILD DATA LOGGERS

PR140

High Temperature Pressure Data Logger



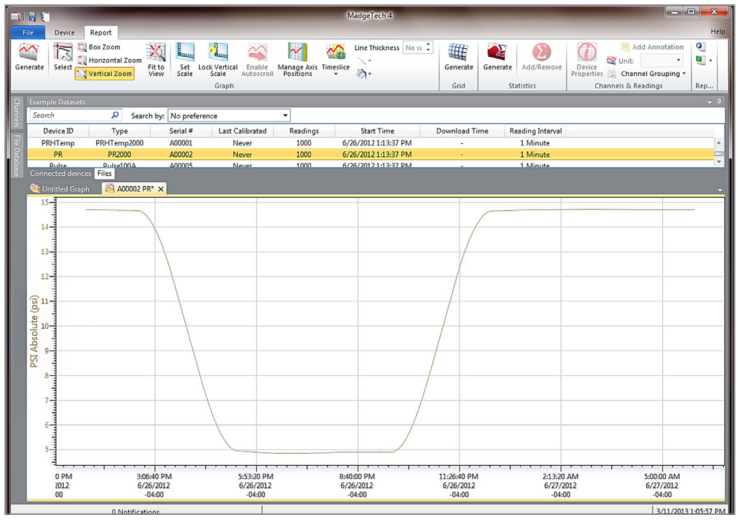
The PR140 is a pressure data logger designed for use in autoclave validation and mapping. This rugged device can withstand temperatures up to 140 °C and is completely submersible (IP68).

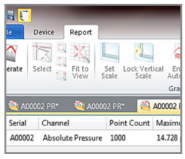
The PR140 is built with a precision stainless steel pressure gauge. The device has an accuracy of ±0.03 bar (±0.435 PSI), which can be achieved over a wide temperature range, from -20 °C to +140 °C (68 °F to 284 °F). The PR140 can be programmed to take readings as often as once per second (1 Hz), and has non-volatile memory that can store up to 32,256 measurements.

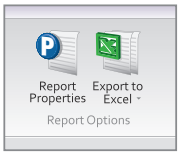
The 1/8-27 NPT pressure port featured on the device allows for compatibility with a variety of fittings and adapters. This is ideal for calibration purposes, as well as connecting the data logger to measure process pressure systems.

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.

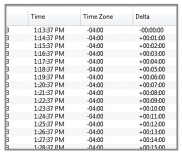
MadgeTech 4 Software Features

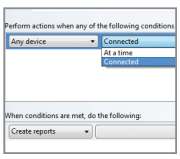



Statistics



Export to Excel


Tabular Data View



Automation

- 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
- Summary view

FEATURES

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

BENEFITS

- Simple Setup and Installation
- Minimal Long-Term Maintenance
- Compatible with 1/8-27 NPT Adapters and Fittings

APPLICATIONS

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

Specifications

Specifications are subject to change without notice. Specific warranty remedy limitations apply.
Call **(603) 456-2011** or go to **madgetech.com** for details.

GENERAL

Start Modes	Software programmable immediate start Delay start up to 6 months in advance
Real Time Recording	May be used with PC to monitor and record data in real time
Password Protection	An optional password may be programmed into the device to restrict access to configuration options. Data may be read without the password.
Memory	32,256 readings
Wrap Around	Yes
Reading Rate	1 reading every second up to 1 reading every 24 hours
Calibration	Digital calibration through software
Calibration Date	Automatically recorded within device
Battery Type	3.6V high-temperature lithium battery included, user replaceable
Battery Life	2 Years
Data Format	PSIA, inHg, mmHg, bar, atm, Torr, Pa, kPa, MPa
Time Accuracy	±1 minute/month at 20 °C to 30 °C
Computer Interface	IFC400 or IFC406 USB docking station required
Operating System Compatibility	Windows XP SP3 or later
Software Compatibility	Standard Software version 2.06.02 or later Secure Software version 4.1.3.0 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
IP Rating	IP68
Dimensions	Flush 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.) NPT Specification: 1/8-27
Weight	Flush Top: 3.1 oz (90 g) NPT Pressure Port Top: 3.5 oz (100 g)
Material	316 Stainless Steel, Radel
Approvals	CE

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 °C (302 °F).

PRESSURE

Pressure Sensor	Semiconductor strain gauge
Pressure Range	0 to 5 bar (0 to 72.5 PSIA)
Pressure Resolution	0.0001 bar (0.00145 PSIA)
Calibrated Accuracy	±0.03 bar (± 0.435 PSI) from +20 °C to +140 °C (+68 °F to +284 °F) ±0.1 bar (±1.45 PSI) from -20 °C to +19.99 °C (-4 °F to +68 °F)
Pressure Response Time	1 second (10 to 90 % FSR)

WP WPLS
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Solutions for High-tech Instrumentation
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LSTechnology
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Ordering Information

PR140-LVL	PN 900998-00	Pressure Data Logger with Flush Top
PR140-NPT	PN 900992-00	Pressure Data Logger with 1/8-27 NPT Pressure Port Top
IFC400	PN 900319-00	Docking station with USB cable
IFC406	PN 900325-00	6 Port, Multiplexer docking station with USB cable
ER14250-01	PN 900097-00	Replacement battery for the PR140