

PRTemp140

High Temperature and Pressure Data Logger



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.

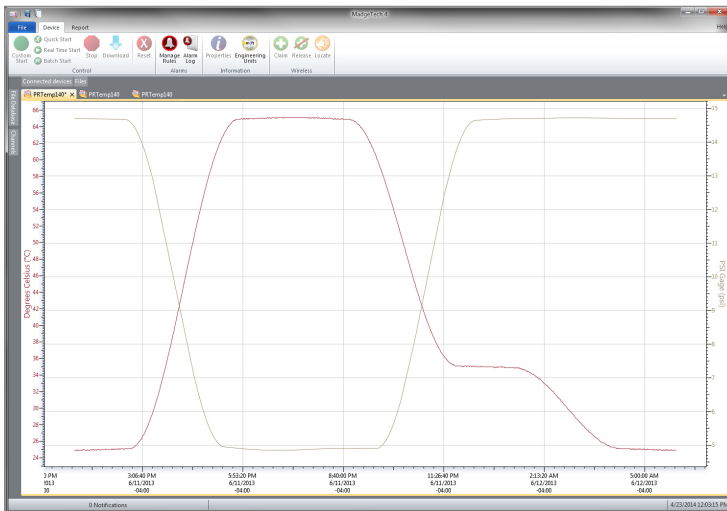
Features

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

Benefits

- Simple Setup and Installation
- Minimal Long-Term Maintenance
- Compatible with .125 inch NPT Adapters and Fittings

MadgeTech 4 Software Features



Graph View

- 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

Serial	Channel	Point Count	Maximum	Minimum	Average
A0000	Temperature	1000	65.1 °C	24.0 °C	42.0 °C
A0000	Gage Pressure	1000	14.738 psi	4.846 psi	11.000 psi

Statistics

Export to Excel

Time	Time Zone	Data
1:13:37 PM	-04:00	-05:00:00
1:14:37 PM	-04:00	-05:01:00
1:15:37 PM	-04:00	-05:02:00
1:16:37 PM	-04:00	-05:03:00
1:17:37 PM	-04:00	-05:04:00
1:18:37 PM	-04:00	-05:05:00
1:19:37 PM	-04:00	-05:06:00
1:20:37 PM	-04:00	-05:07:00
1:21:37 PM	-04:00	-05:08:00
1:22:37 PM	-04:00	-05:09:00
1:23:37 PM	-04:00	-05:10:00
1:24:37 PM	-04:00	-05:11:00
1:25:37 PM	-04:00	-05:12:00
1:26:37 PM	-04:00	-05:13:00
1:27:37 PM	-04:00	-05:14:00
1:28:37 PM	-04:00	-05:15:00

Tabular Data View

Perform actions when any of the following conditions:

- Any device: Connected
- At a time: Connected

When conditions are met, do the following:

- Create reports:

Automation

Applications

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

SPECIFICATIONS

Specifications are subject to change without notice. Specific warranty remedy limitations apply.

PRESSURE	
Pressure Sensor	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)

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	Immediate start Delay start up to 18 months in advance
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
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	32,767 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 typical (1 minute reading rate)
Data Format	°C, °F, °R, K, bar, mbar, PSI, inHg, mmHg, atm, Torr, Pa, kPa, MPa
Time Accuracy	±1 minute/month at 25 °C Extended Operation: ±20 mins/month at 140 °C (±450 ppm)
Computer Interface	IFC400 or IFC406 USB docking station required
Operating System Compatibility	Windows XP SP3 or later
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
Dimensions	Flush Top: 1.98 in x 0.97 in dia. (50.2 mm x 24.6 mm dia.) NPT Pressure Port Top: 2.3 in x 0.97 in dia. (58.2 mm x 24.6 mm dia.)
Weight	Flush Top: 3.1 oz (90 g) NPT Pressure Port Top: 3.5 oz (100 g)
IP Rating	IP68
Material	316 Stainless Steel
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).

Ordering Information

PRTemp140-LVL	PN 901225-00	High Temperature and Pressure Data Logger with Flush Top
PRTemp140-NPT	PN 901223-00	High Temperature and Pressure Data Logger with 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
ER14250MR-145	PN 900097-00	Replacement battery for the PRTemp140