# **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).

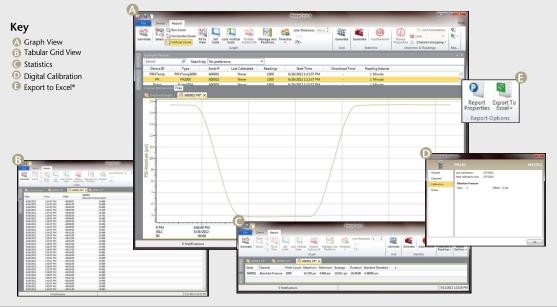
The PR140 is built with a precision stainless steel pressure gauge. The device has an accuracy of  $\pm 0.03$  Bar ( $\pm 0.435$  PSI), which can be achieved over a wide temperature range, from  $20^{\circ}\text{C}$  to  $+140^{\circ}\text{C}$  ( $68^{\circ}\text{F}$  to  $284^{\circ}\text{F}$ ). The 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



#### **Software Features:**

- Multiple graph overlay
- Statistics
- Digital calibration
- Zoom in/ zoom out
- Lethality equations (F<sub>0</sub>, 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	0.1m Bar (0.0015 PSIA)	
Calibrated Accuracy	±0.03 Bar (± 0.435 PSI) (20°C to +140°C/68°F to 284°F)	
Pressure Response Time	0.1ms (10 to 90% FSR)	
Repeatability	±0.5% FSR; ±0.2% typical	
Reading Rate	1 second to once 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	Monthly calibration recommended	

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 interface cable required); 125,000 baud
Software	XP SP3/Vista/Windows 7/Windows 8
Operating Environment	-20°C to +140°C (-4°F to +284°F), 0 to 100% RH Note: The PR140 may be used above 60°C for up to 8 hours, per 24 hour period.
Dimensions	Flush Top: 2.0" x 1.0" dia. (50.8mm x 25.4mm dia.) NPT Pressure Port Top: 2.3" x 1.0" dia. (58.2mm x 25.4mm dia.)
Submersible	Yes (IP68)
Enclosure	Stainless Steel
Weight	3oz (85g)
Approvals	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).

## **ORDERING INFORMATION**

MODEL	DESCRIPTION	PRICE (U.S.)
PR140	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



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