

# PR1000

## Pressure and Temperature Data Logger



The PR1000 is a pressure and temperature data logger used to accurately monitor and record at user programmable reading intervals. The rugged stainless steel design allows for the device to be placed in harsh environments, which makes it well suited for use with air conditioning systems, chilled water, hot water, air, gas, oil and steam pressure systems.

The PR1000 can also monitor and record transient pressure through software configuration of user defined trigger thresholds and time periods. The logger can be configured to record measurements at rates as fast as 128Hz or as slow as once every 24 hours. The non-volatile memory has a capacity of over 1 million readings.

The PR1000 uses a stainless steel pressure strain gauge to accurately measure the pressure. The 1/4 inch NPT pressure port featured on the device allows for compatibility with a variety of fittings and adapters. The internal temperature sensor provides ambient temperature measurements. The PR1000 is also fully submersible. There are many different pressure ranges available to fit most any application.

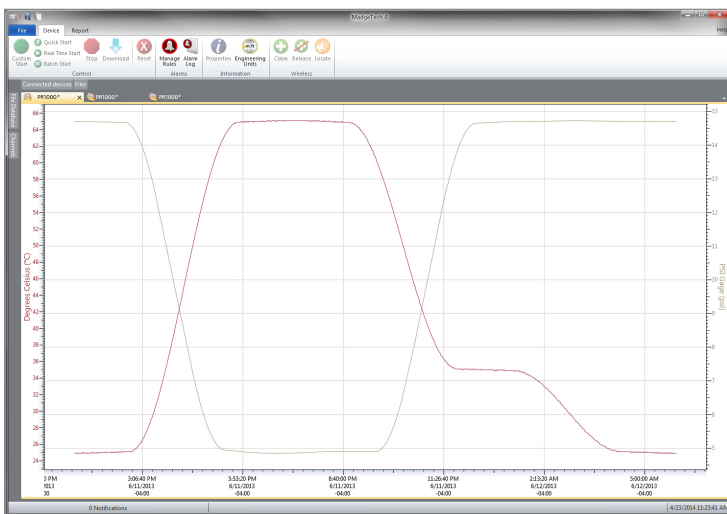
### Features

- Rugged
- Reusable
- Submersible
- Programmable start time
- Real-time operation
- User-friendly
- Low cost
- CE compliant

### Applications

- Pneumatics
- Process control systems
- Gas compressors
- Natural gas production
- Lubrication systems
- Chemical processing
- Pulp and paper processing
- Medical instrumentation
- Environmental studies
- Waste water treatment
- HVAC
- Oil & gas industries

### MadgeTech 4 Software Features



Graph View

- Multiple graph overlay
- Statistics
- Digital calibration
- Zoom in/ zoom out
- Lethality equations
- 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	14.728 psi	4.846 psi	10.000 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

TEMPERATURE	
Temperature Sensor	Semiconductor
Temperature Range	-40 °C to +80 °C (-40 °F to +176 °F)
Temperature Resolution	1.0 °C (1.8 °F)
Calibrated Accuracy	±2.0 °C (3.6 °F) at 0 °C to +50 °C (+32 °F to +122 °F) ±4.0 °C (7.2 °F) at -40 °C to -1 °C (-40 °F to +30 °F) ±4.0 °C (7.2 °F) at +51 °C to +85 °C (+124 °F to +185 °F)

PRESSURE	
Pressure Sensor	Semiconductor strain gauge
Pressure Range	
Pressure Resolution	*See table below
Calibrated Accuracy	
Pressure Response Time	0.1 ms (10 to 90 %FSR)
Repeatability	±0.5 %FSR; ±0.2 % typical

GENERAL	
Start Modes	Software programmable immediate start or delay start up to six months in advance
Real Time Recording	May be used with PC to monitor and record data in real time
Memory	1,396,736 readings
Wrap Around	Yes

Reading Rate	1 reading every second up to 1 reading every 24 hours Up to 128 Hz in transient mode
Calibration	Digital calibration through software
Calibration Date	Automatically recorded within device
Battery Type	3.6 V lithium battery included, user replaceable
Battery Life	1 year typical (1 minute reading rate at 25 °C) 10 days at 128 Hz in transient mode
Data Format	Date and time stamped °C, °F, K, °R ; mbar, PSI, inHg, mmHg, atm, Torr, Pa, kPa, MPa, m
Time Accuracy	±1 minute/month at 25 °C
Computer Interface	IFC400 or IFC406 USB docking station required
Operating System Compatibility	Windows XP SP3 or later
Software Compatibility	Standard Software version 4.2.21.1 or later
Operating Environment	-40 °C to +80 °C (-40 °F to +176 °F) 0 %RH to 100 %RH
Dimensions	3.6 in x 0.97 in dia. (91.3 mm x 24.6 mm dia.)
Weight	5.5 oz (156 g)
IP Rating	IP68
Material	316 Stainless Steel/Radel
Approvals	CE

**BATTERY WARNING:** FIRE, EXPLOSION, AND SEVERE BURN HAZARD. DO NOT SHORT CIRCUIT, CHARGE, FORCE OVER DISCHARGE, DISASSEMBLE, CRUSH, PENETRATE OR INCINERATE. BATTERY MAY LEAK OR EXPLODE IF HEATED ABOVE 80 °C (176 °F).

*Range (PSI)	0-30 PSIA/PSIG	0-100 PSIA/PSIG	0-300 PSIA/PSIG	0-500 PSIA/PSIG	0-1000 PSIA	0-5000 PSIA
Accuracy	2 %FSR, 0.25 % @ 25 °C typical					
Resolution (PSI)	0.0005 PSIA/PSIG	0.002 PSIA/PSIG	0.005 PSIA/PSIG	0.01 PSIA/PSIG	0.02 PSIA	0.1 PSIA

## Ordering Information

PR1000-1000A	PN 902244-00	0-1000 PSIA Pressure and Temperature Data Logger
PR1000-100A	PN 902241-00	0-100 PSIA Pressure and Temperature Data Logger
PR1000-100G	PN 902247-00	0-100 PSIG Pressure and Temperature Data Logger
PR1000-300A	PN 902242-00	0-300 PSIA Pressure and Temperature Data Logger
PR1000-300G	PN 902248-00	0-300 PSIG Pressure and Temperature Data Logger
PR1000-30A	PN 902240-00	0-30 PSIA Pressure and Temperature Data Logger
PR1000-30G	PN 902246-00	0-30 PSIG Pressure and Temperature Data Logger
PR1000-5000A	PN 902245-00	0-5000 PSIA Pressure and Temperature Data Logger
PR1000-500A	PN 902243-00	0-500 PSIA Pressure and Temperature Data Logger
PR1000-500G	PN 902249-00	0-500 PSIG Pressure and Temperature Data Logger
PR1000-1000A-KR	PN 902274-00	0-1000 PSIA Pressure and Temperature Data Logger with key ring end cap
PR1000-100A-KR	PN 902271-00	0-100 PSIA Pressure and Temperature Data Logger with key ring end cap
PR1000-100G-KR	PN 902277-00	0-100 PSIG Pressure and Temperature Data Logger with key ring end cap
PR1000-300A-KR	PN 902272-00	0-300 PSIA Pressure and Temperature Data Logger with key ring end cap
PR1000-300G-KR	PN 902278-00	0-300 PSIG Pressure and Temperature Data Logger with key ring end cap
PR1000-30A-KR	PN 902270-00	0-30 PSIA Pressure and Temperature Data Logger with key ring end cap
PR1000-30G-KR	PN 902276-00	0-30 PSIG Pressure and Temperature Data Logger with key ring end cap
PR1000-5000A-KR	PN 902275-00	0-5000 PSIA Pressure and Temperature Data Logger with key ring end cap
PR1000-500A-KR	PN 902273-00	0-500 PSIA Pressure and Temperature Data Logger with key ring end cap
PR1000-500G-KR	PN 902279-00	0-500 PSIG Pressure and Temperature Data Logger with key ring end cap
IFC400	PN 900319-00	Docking station with USB cable
IFC406	PN 900325-00	6-Port multiplexer docking station with USB cable
TL2150/S	PN 901745-00	Replacement battery for the PR1000