

PRTrans1000IS

Intrinsically Safe Transient Pressure Data Logger



The PRTrans1000IS is a rugged pressure logger that allows users to monitor and capture transient pressure events at a high sample rate.

The logger samples up to 100 Hz (10 ms) but records data based on user-defined pressure thresholds. The device can be set to start the trigger on high and/or low thresholds and end the trigger after either a chosen number of samples, or when the signal crosses over the set stop threshold. The device can record up to 255 events and take as many as 262,143 pressure samples. The data logger also shows up to 32 samples of “pre-trigger” data.

The PRTrans1000IS has been certified as intrinsically safe for Class I, Division 1, groups A, B, C and D and non-incendive for Class I, Division 2, groups A, B, C and D. This certification makes the device ideal for uses in hostile environment applications. The PRTrans1000IS is a battery operated unit with a standard ¼ inch NPT for easy coupling to your pressure systems. The non-volatile memory will retain recorded data even if the user-replaceable battery becomes discharged.

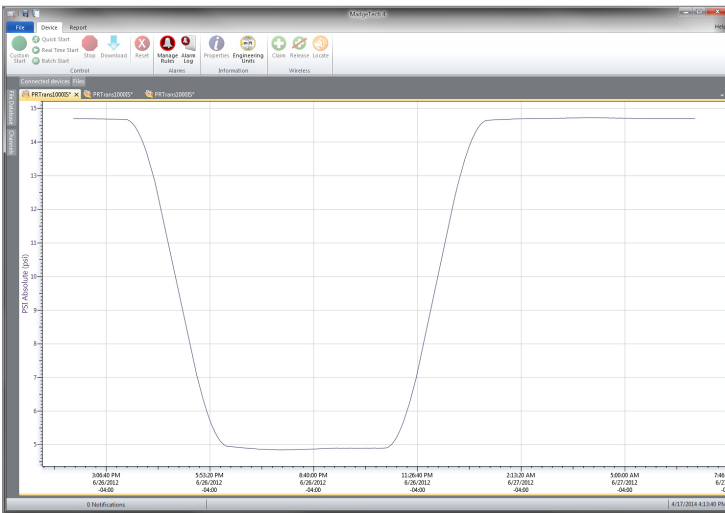
Features

- Intrinsically safe
- Rugged
- 100 Hz operation
- Software selectable trigger modes and threshold levels
- Programmable start time
- Real time operation
- ¼ inch NPT pressure port

Applications

- Oil & gas industries
- Water hammer
- Compressors
- Pumps
- Pneumatics
- Process control systems
- Lubrication systems
- Chemical processing
- Pulp and paper processing
- Waste water treatment
- HVAC

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
A0002	Absolute Pressure	2000	14.728 psi	4.846 psi

Statistics

Report Options

Report to Properties | Export to Excel

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

SPECIFICATIONS

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

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

GENERAL	
Adapter	¼ inch male NPT
Trigger Modes	Software programmable window size or bi-level start/stop triggers
Start Modes	Immediate start, delayed start, batch start and real-time start
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
Memory	262,143 samples
Number of Events	Up to 255 triggered events
Pre-Trigger Size	Up to 32 samples
Reading Rate	1 reading every 10 ms to 1 every second
Calibration	Digital calibration through software

Calibration Date	Automatically recorded within device
Battery Type	3.6 V lithium battery included, user replaceable
Battery Life	3 days continuous @ 10 ms sample rate
Shelf Life	Up to 1 year when device is not in use
Data Format	Date and time stamped PSIA (G), inches, feet, mmHg, bar, Torr, kPa
Time Accuracy	±1 minute/month at 25 °C (RS232 port not in use)
Computer Interface	USB (interface cable required); 115,200 baud
Operating System Compatibility	Windows XP SP3 or later
Operating Environment	-40 °C to +80 °C (-40 °F to +176 °F), 0 %RH to 100 %RH
Dimensions	6.4 in x 1.25 in dia. (163 mm x 32 mm dia.)
Weight	12 oz (340 g)
Material	303 Stainless Steel
Approvals	CE Certified Intrinsically Safe for Class I, Division 1 groups A, B, C and D

BATTERY WARNING: FIRE, EXPLOSION AND SEVERE BURN HAZARD. DO NOT RECHARGE, DISASSEMBLE, HEAT ABOVE 100 °C (212 °F), INCINERATE, CRUSH, OR EXPOSE CONTENTS TO WATER.

*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)	0.02 PSIA/PSIG	0.1 PSIA/PSIG	0.2 PSIA/PSIG	0.5 PSIA/PSIG	1.0 PSIA	5.0 PSIA

Ordering Information

PRTrans1000IS-1000-PSIA	PN 901271-00	0-1000 PSIA Intrinsically Safe Transient Pressure Data Logger
PRTrans1000IS-100-PSIA	PN 901275-00	0-100 PSIA Intrinsically Safe Transient Pressure Data Logger
PRTrans1000IS-100-PSIG	PN 901279-00	0-100 PSIG Intrinsically Safe Transient Pressure Data Logger
PRTrans1000IS-300-PSIA	PN 901283-00	0-300 PSIA Intrinsically Safe Transient Pressure Data Logger
PRTrans1000IS-300-PSIG	PN 901287-00	0-300 PSIG Intrinsically Safe Transient Pressure Data Logger
PRTrans1000IS-30-PSIA	PN 901291-00	0-30 PSIA Intrinsically Safe Transient Pressure Data Logger
PRTrans1000IS-30-PSIG	PN 901295-00	0-30 PSIG Intrinsically Safe Transient Pressure Data Logger
PRTrans1000IS-5000-PSIA	PN 901299-00	0-5000 PSIA Intrinsically Safe Transient Pressure Data Logger
PRTrans1000IS-500-PSIA	PN 901303-00	0-500 PSIA Intrinsically Safe Transient Pressure Data Logger
PRTrans1000IS-500-PSIG	PN 901307-00	0-500 PSIG Intrinsically Safe Transient Pressure Data Logger
IFC200	PN 900298-00	USB interface cable
TL-2150/P	PN 901744-00	Replacement battery for the PRTrans1000IS

For Quantity Discounts call (603) 456-2011 or email sales@madgetech.com