

DIFFERENTIAL PRESSURE AND THERMOCOUPLE TEMPERATURE DATA LOGGER

Features

- 5 year battery life
- Wide temperature range
- Accepts thermocouple types J, K, T, E, R, S, B, N
- High speed download
- N.I.S.T. traceable
- Real-time operation
- Low cost
- Programmable start time
- Miniature size

Applications

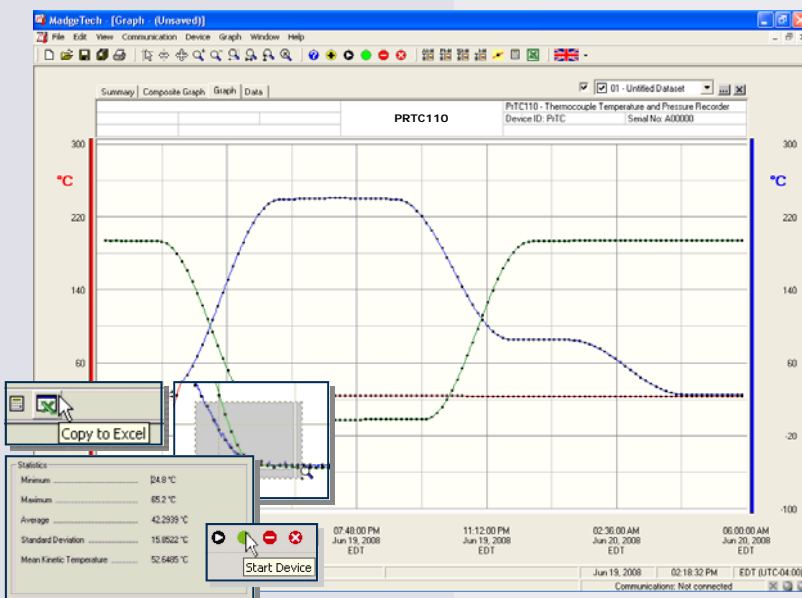
- R&D
- Diagnostics
- Measure Pressure and Temperature Pipelines
- Clean Rooms
- Atmospheric pressure gradient monitoring

The PRTC110 is a differential pressure and temperature data logger, ideal for use in factory and laboratory applications. The device is available in a 0 to 2inH₂O or 0 to 5inH₂O model.



The PRTC110 features a real-time clock module that extends the battery life up to 5 years and allows for high speed downloads. This device will measure and record up to 10,922 measurements per channel. The storage medium is non-volatile solid state memory, providing maximum data security even if the battery becomes discharged. The PRTC110 can be started and stopped directly from your computer and its small size allows it to fit almost anywhere.

The PRTC110 makes data retrieval quick and easy. Simply plug the device into an empty COM or USB port and our user-friendly software does the rest.



MadgeTech Data Recorder Software displays pressure and temperature data in an easy to use graph.

The Windows®-based software package allows the user to effortlessly collect, display and analyze data. A variety of powerful tools allow you to examine, export, and print professional looking data with just a click of the mouse.

Click [MadgeTech Software](#) for more information or to download the software.

PRTC110 SPECIFICATIONS*

Internal Channel

Temperature Range: -20 to +80°C

Temperature Resolution: 0.1°C

Calibrated Accuracy: ±0.5°C (0 to 50°C)

Remote Channel

Thermocouple Types: J, K, T, E, R, S, B, N

Thermocouple connection: Mini U connector

Cold Junction Compensation: Automatic, based on internal channel

Maximum thermocouple Resistance: 1000Ω, <1000Ω recommended

**Thermocouple Type:	Range (°C)	Resolution	Accuracy
J	-200 to +760	0.1°C	±0.5°C
K	-200 to +1370	0.1°C	±0.5°C
T	-200 to +400	0.1°C	±0.5°C
E	-200 to +980	0.1°C	±0.5°C
R	-50 to +1760	0.1°C	±2.0°C
S	-50 to +1760	0.1°C	±2.0°C
B	+50 to +1820	0.1°C	±2.0°C
N	-200 to +1300	0.1°C	±0.5°C
Voltage	-75 mV to +75mV	5µV	±20µV

**Accuracy specifications based on 3-meter 24 AWG thermocouple.

Pressure Range (nominal): 0 to 2inH2O and 0 to 5inH2O (differential)

Pressure Range (max): -2 to +4inH2O and -2 to +8inH2O (differential)

Pressure Resolution: 0.002 inH2O and 0.005 inH2O

Pressure Specified Accuracy: Nominal Range at 25°C

Combined Calibration Accuracy: ±5.0% FSR max at 25°C over 1 year

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: 10,922 readings per channel; software configurable memory wrap

Reading Rate: 2 seconds to 24 hours, selectable in software

Calibration: Digital calibration through software
Calibration Date: Automatically recorded within device

Battery Type: 3.6V lithium battery included, **user replaceable**

Battery Life: 5 year typical (5 minute, 25°C)

Data Format: Date and time stamped °C, °F, °K, °R; inH2O, PSIG, inHg, mmHg, bar, atm, Torr, Pa, kPa, MPa

Time Accuracy: ±1 minute/month (at 20 to 30°C)

Computer Interface: PC serial or USB (interface cable required); 57,600 baud

Software: Windows 95/98/ME/NT/2000/XP/Vista based software

Operating Environment: -20 to +80°C, 0 to 95%RH non-condensing

Dimensions: 2.7" x 1.6" x 0.8" (68mm x 41mm x 20mm) plus connective tubing

Enclosure: ABS Plastic

Weight: 8.8 oz (250 g)

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

SOFTWARE FEATURES

Multiple Graphs: Simultaneously analyze data from several units or deployments; easily switch to a single data series

Graphical Cursor: One click displays readings by time, value, parameter or sample number

Data Table: Instantly access tabular view for detailed dates, times, values, and annotations

Scaling Options: Autoscale function fits data to the screen, or allows user to manually enter their own values

Formatting Options: Change colors, line styles, plotting options, show or hide channels quickly

Statistics: Calculate averages, min, max, standard deviation, and mean kinetic temperature with the touch of a button

Export Data: Export data in a variety of common formats, or switch to Excel® with a single click

Calibration: Automatically calculate and store calibration parameters

Logger Configuration: Easy set up and launch of data loggers with immediate or delayed start, preferred sample rate, and device ID

Communications: Automatically sets up communications port, or lets user select configuration

*SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE. SPECIFIC WARRANTY AND REMEDY LIMITATIONS APPLY. CALL 1-603-456-2011 OR GO TO WWW.MADGETECH.COM FOR DETAILS.

ORDERING INFORMATION

Model	Description	Price (U.S.)
PRTC110-2inH2O	2inH2O Differential Pressure and Thermocouple Temperature Recorder	\$399.00
PRTC110-5inH2O	5inH2O Differential Pressure and Thermocouple Temperature Recorder	\$399.00
IFC110	Software, manual and RS232 interface cable	\$99.00
IFC200	Software, manual and USB interface cable	\$119.00
NIST	N.I.S.T. Calibration Certificate	Call for Pricing
LTC-7PN	Replacement battery for PRTC110	\$10.00

ASK ABOUT OUR OTHER DATA RECORDERS

Temperature	Pulse/Event/State
Humidity	Low Level Current
Pressure	Low Level Voltage
pH	RF Transmitters
Level	Intrinsically Safe
Shock	Spectral Vibration
LCD Display	

