

# PRTC110 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
- 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 LOGGER SOFTWARE

Key

- A Graph View
- B Tabular Data View
- C Statistics
- D Digital Calibration
- E Copy to Excel®

- Software Features:
- 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
  - Data table view
  - Automatic report generation
  - Summary view
  - Multilingual

# PRTC110 SPECIFICATIONS\*

## Internal Channel

Temperature Range:	-20 °C to +80 °C (-4 °F to +176 °F)
Temperature Resolution:	0.1 °C (0.18 °F)
Calibrated Accuracy:	±0.5 °C (0 °C 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:	1000 Ω, <1000 Ω recommended		
**Thermocouple Type:	Range (°C)	Resolution	Accuracy
J	-210 to +760	0.1 °C	±0.5 °C
K	-270 to +1370	0.1 °C	±0.5 °C
T	-270 to +400	0.1 °C	±0.5 °C
E	-270 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	-270 to +1300	0.1 °C	±0.5 °C
Voltage	-75 mV to +75 mV	5 μV	±20 μV
**Accuracy specifications based on 3-meter 24 AWG thermocouple.			
Pressure Range (nominal):	0 to 2 inH2O and 0 to 5 inH2O (differential)		
Pressure Range (max):	-2 to +4 inH2O and -2 to +8 inH2O (differential)		
Pressure Resolution:	0.002 inH2O and 0.005 inH2O		
Pressure Specified Accuracy:	Nominal Range at +25 °C (+77 °F)		

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 °C to 30 °C)
Computer Interface:	PC serial or USB (interface cable required); 57,600 baud
Software:	XP SP3/Vista/Windows 7/Windows 8
Operating Environment:	-20 °C to +80 °C (-4 °F to +176 °F), 0 %RH to 95 %RH non-condensing
Dimensions:	2.7 in x 1.6 in x 0.8 in (68 mm x 41 mm x 20 mm) plus connective tubing
Enclosure:	ABS Plastic
Weight:	1.25 oz (34 g)
Approvals:	CE

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

## ORDERING INFORMATION

MODEL	DESCRIPTION
PRTC110-2inH2O	2inH2O Differential Pressure and Thermocouple Temperature Recorder
PRTC110-5inH2O	5inH2O Differential Pressure and Thermocouple Temperature Recorder
IFC200	Software, manual and USB interface cable
Calibration Certificate	Calibration Certificate available for data logger
LTC-7PN	Replacement battery for PRTC110

ASK ABOUT OUR OTHER DATA LOGGERS

- Temperature
- Humidity
- Pressure
- pH
- Level
- Shock
- LCD Display
- Pulse/Event/State
- Current
- Voltage
- Wireless
- Intrinsically Safe
- Spectral Vibration
- Motion