

## Differential Pressure and Thermocouple Temperature Data Logger

### OM-CP-PRTC110



Optional

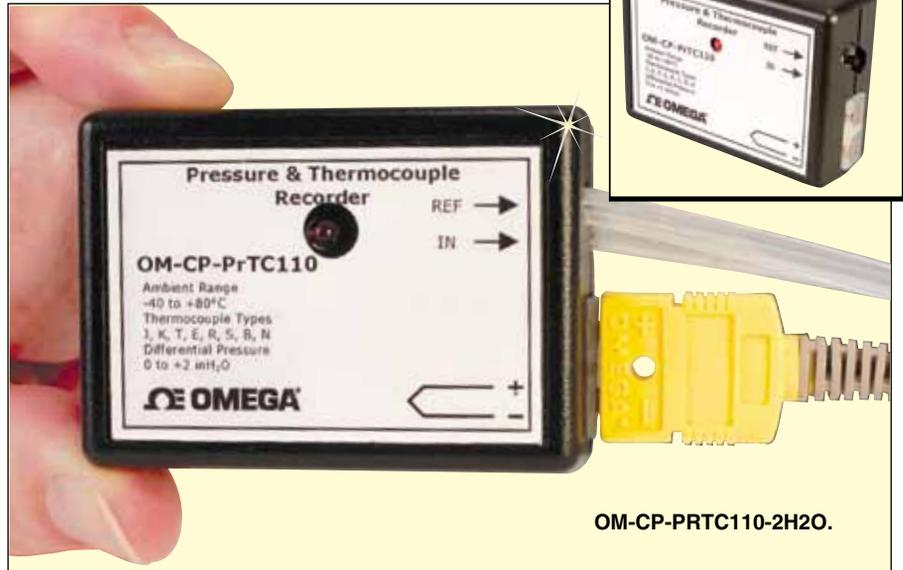
- ✓ Accepts Thermocouple Types J, K, T, E, R, S, B, and N
- ✓ High Speed Download
- ✓ Real-Time Operation
- ✓ Programmable Start Time
- ✓ Three Channels: Internal Ambient Temperature, Remote Temperature (Thermocouple), and Remote Pressure
- ✓ 2 Year Battery Life

The OM-CP-PRTC110 is a differential pressure and temperature data logger, ideal for use in factory and laboratory applications.

The OM-CP-PRTC110 features a real-time clock module that extends the battery life to >2 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 and stopped directly from your computer and its small size allows it to fit almost anywhere.

The OM-CP-PRTC110 makes data retrieval quick and easy. Simply plug it into an available com port and our user-friendly software does the rest. The software converts a PC into a real-time strip chart recorder. Data can be printed in graphical and tabular format or exported to a text or Microsoft Excel® file.



### Specifications

#### INTERNAL CHANNEL

**Temperature Range:**

-20 to 80°C (-4 to 176°F)

**Temperature Resolution:** 0.1°C

**Calibrated Accuracy:** ±0.5°C

#### REMOTE CHANNELS

**Thermocouple Types:**

J, K, T, E, R, S, B, and N

**Thermocouple Connection:**

Female subminiature thermocouple connector

**Cold Junction Compensation:**

Automatic, based on internal channel

**Maximum Thermocouple**

**Resistance:** 1000 Ω, <1000 Ω recommended

**Pressure Connections:**

REF and IN ports via 1/16" ID, 5/32" Max OD, polyurethane tubing

**Accuracy:** ±5% FSR max at 25°C over 1 year

### Start Modes:

Software programmable immediate start or delay start up 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 sec to 24 hrs, software selectable

**Calibration:** Digital calibration through software

**Calibration Date:** Automatically recorded within device

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

**Battery Life:** 5 years

(5 minute reading rate at 25°C)

**Data Format:** Date and time stamped °C, °F, K, R, inH<sub>2</sub>O, PSIG, inHg, mmHg bar, atm, Torr, Pa, kPa, and MPa

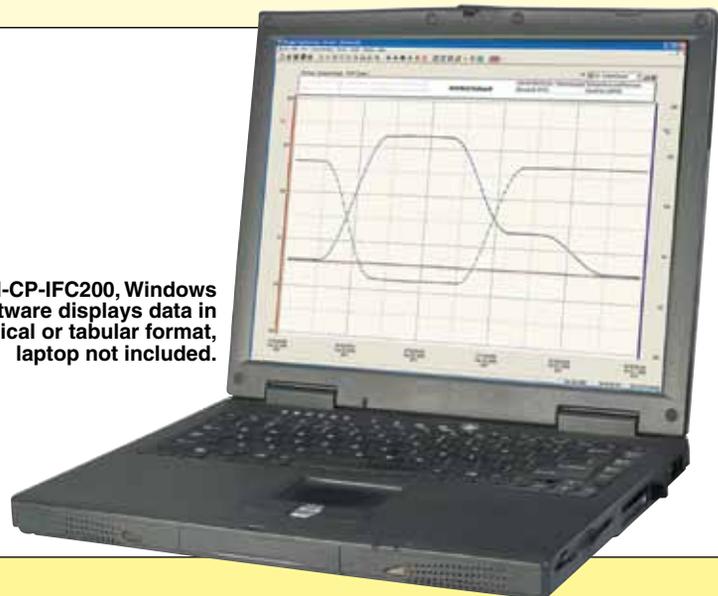
THERMOCOUPLE TYPE	RANGE	RESOLUTION	ACCURACY*
J	-210 to 760°C	0.1°C	±0.5°C
K	-260 to 1370°C	0.1°C	±0.5°C
T	-260 to 400°C	0.1°C	±0.5°C
E	-260 to 980°C	0.1°C	±0.5°C
R	-50 to 1760°C	0.5°C	±2.0°C
S	-50 to 1760°C	0.5°C	±2.0°C
B	50 to 1820°C	0.5°C	±2.0°C
N	-270 to 1300°C	0.1°C	±0.5°C
mV	-75 mV to 75 mV	5µV	±20µV

\* Accuracy specifications based on 3 m (9.8') 24 AWG thermocouple.



**Time Accuracy:**  $\pm 1$  min/month  
(at 20 to 30°C)  
**Computer Interface:** PC serial  
or USB (interface cable required);  
57,600 baud  
**Software:**  
XP SP3/Vista/7 and 8  
(32-bit and 64-bit)  
**Operating Environment:**  
-20 to 80°C (-4 to 176°F),  
0 to 95% RH, non-condensing  
**Dimensions:**  
41 H x 68 W x 20 mm D  
(1.6 x 2.7 x 0.8") plus  
connective tube  
**Enclosure:** ABS plastic  
**Weight:** 250 g (8.8 oz)

OM-CP-IFC200, Windows  
software displays data in  
graphical or tabular format,  
laptop not included.



## To Order

MODEL NO.	PRESSURE RANGE	MAX PRESSURE	PRESSURE RESOLUTION	NIST CERTIFICATE
OM-CP-PRTC110-2H2O	0 to 2 inH <sub>2</sub> O	-2 to 4 inH <sub>2</sub> O	0.002 inH <sub>2</sub> O	-
OM-CP-PRTC110-2H2O-CERT	0 to 2 inH <sub>2</sub> O	-2 to 4 inH <sub>2</sub> O	0.002 inH <sub>2</sub> O	Y
OM-CP-PRTC110-5H2O	0 to 5 inH <sub>2</sub> O	-2 to 8 inH <sub>2</sub> O	0.005 inH <sub>2</sub> O	-
OM-CP-PRTC110-5H2O-CERT	0 to 5 inH <sub>2</sub> O	-2 to 8 inH <sub>2</sub> O	0.005 inH <sub>2</sub> O	Y

## ACCESSORIES

MODEL NO.	DESCRIPTION
OM-CP-IFC200	Windows software and 1.8 m (6') USB interface cable
OM-CP-SVP-SYSTEM	FDA 21 CFR part 11 compliant IQ/OQ/PQ secure software validation workbook and software package (unlimited users, license per computer)
OM-CP-BAT105	Replacement 3.6V lithium battery

Comes complete with 3.6V lithium battery. Operator's manual and USB interface cable are included with the OM-CP-IFC200 Windows software (required to operate the data logger, sold separately).

**Ordering Example:** OM-CP-PRTC110-2H2O-CERT, differential pressure and temperature data logger with NIST calibration certificate, and OM-CP-IFC200, Windows software with USB interface cable.