

Thermocouple Temperature and Pressure Data Logger

OM-CP-PRTC210



- ✓ Up to 2 Years Battery Life
- ✓ Wide Temperature Range
- ✓ Accepts Thermocouple Types J, K, T, E, R, S, B and N
- ✓ High Speed Download
- ✓ Real-Time Operation
- ✓ Programmable Start Time
- ✓ Miniature Size

The OM-CP-PRTC210 is a pressure and thermocouple temperature data logger, ideal for use in factory settings. This device is available from 2 to 345 bar (30 to 5000 psi) and features a 1/8 MNPT fitting for quick connection.

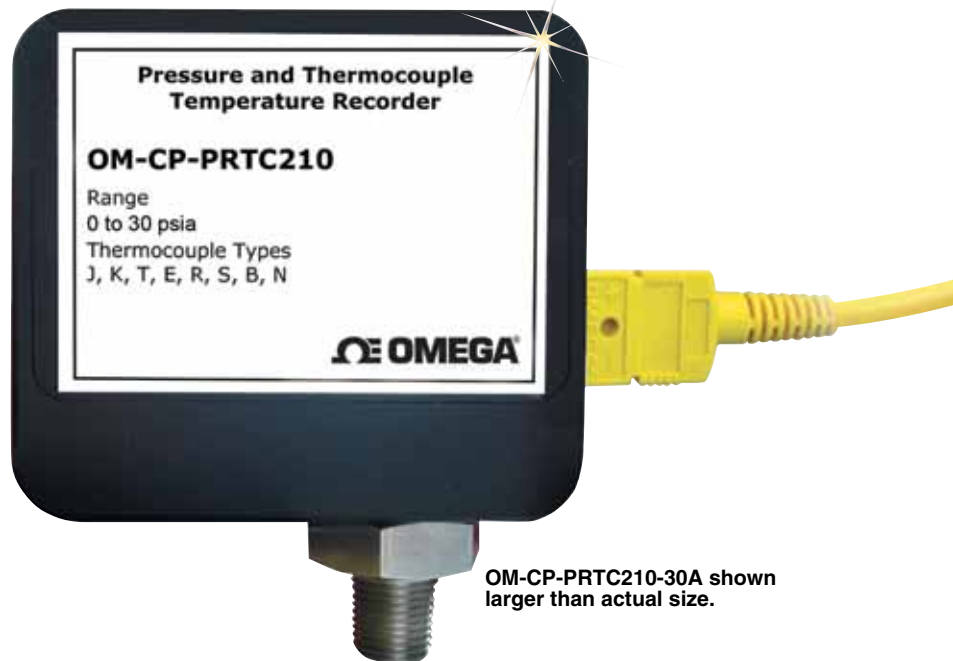
The OM-CP-PRTC210 has a real-time clock and a battery life of up to 2 years. This all in one compact, portable, easy to use device has a high-speed download and can measure and record up to 10,922 readings per channel.

The storage medium is non-volatile solid state memory, providing maximum data security even if the battery becomes discharged.

The OM-CP-PRTC210 can be started and stopped directly from your computer and its small size allows it to fit almost anywhere.

The OM-CP-PRTC210 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.



OM-CP-PRTC210-30A shown larger than actual size.

Specifications

INTERNAL CHANNEL

Temperature Range: -20 to 80°C (-4 to 176°F)
Temperature Resolution: 0.1°C
Calibrated Accuracy: ±0.5°C

REMOTE CHANNEL

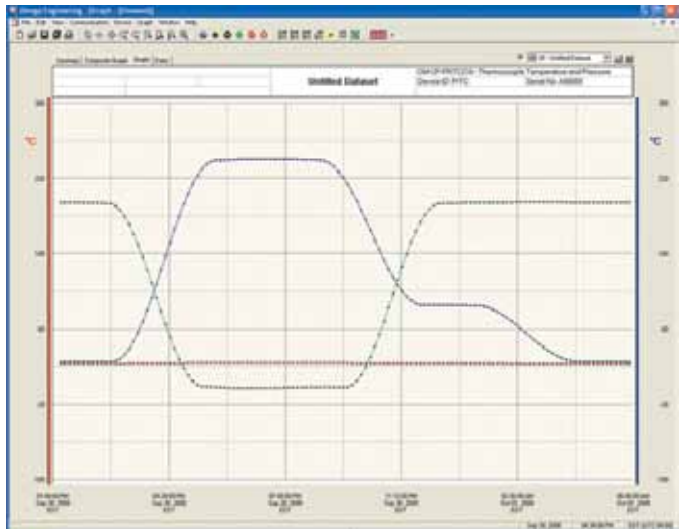
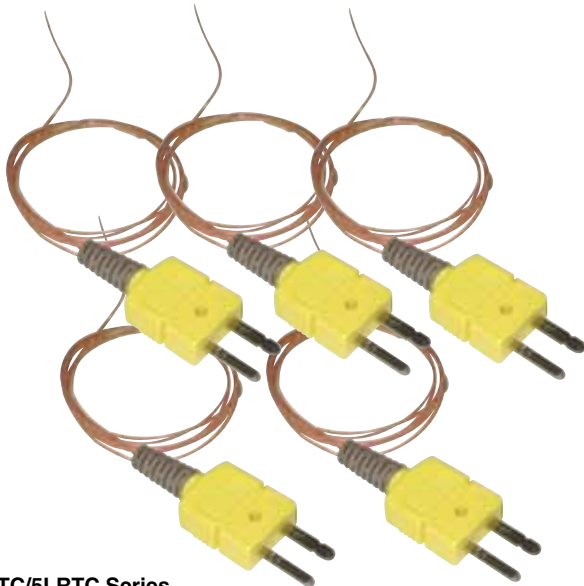
Thermocouple Types: J, K, T, E, R, S, B and N
Thermocouple Connection: Female subminiature (SMP) connector
Cold Junction Compensation: Automatic, based on internal channel
Maximum Thermocouple Resistance: 1000Ω, <100Ω recommended
Pressure Sensor: Semiconductor strain gauge
Pressure Specified Accuracy: 2% FSR, 0.25% @ 25°C Typical

Pressure Response Time:

0.1 ms (10 to 90% FSR)
Pressure Connection: 1/8 MNPT
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 seconds to 12 hours, selectable in software
Calibration: Digital calibration through software
Calibration Date: Automatically recorded within device

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
Voltage	-75 mV to 75 mV	5µV	±20µV

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



OM-CP-IFC200 Windows software displays data in graphical or tabular format.

5SRTC/5LRTC Series.
Sold separately

Pressure Range	Resolution
0 to 30 psia	0.002 psia
0 to 30 psig	0.002 psig
0 to 100 psia	0.005 psia
0 to 100 psig	0.005 psig
0 to 300 psia	0.02 psia
0 to 300 psig	0.02 psig
0 to 500 psia	0.05 psia
0 to 500 psig	0.05 psig
0 to 1000 psia	0.05 psia
0 to 5000 psia	0.2 psia

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

Battery Life: Up to 2 years

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

Time Accuracy: ±1 minute/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: 55 H x 63 W x 22 mm D (2.2 x 2.5 x 0.9") plus NPT fitting

Enclosure: Delrin®
Weight: 119 g (4.2 oz)

To Order

Model No.	Description
OM-CP-PRTC210-30A	Thermocouple temperature and pressure data logger, 0 to 30 psia
OM-CP-PRTC210-30G	Thermocouple temperature and pressure data logger, 0 to 30 psig
OM-CP-PRTC210-100A	Thermocouple temperature and pressure data logger, 0 to 100 psia
OM-CP-PRTC210-100G	Thermocouple temperature and pressure data logger, 0 to 100 psig
OM-CP-PRTC210-300A	Thermocouple temperature and pressure data logger, 0 to 300 psia
OM-CP-PRTC210-300G	Thermocouple temperature and pressure data logger, 0 to 300 psig
OM-CP-PRTC210-500A	Thermocouple temperature and pressure data logger, 0 to 500 psia
OM-CP-PRTC210-500G	Thermocouple temperature and pressure data logger, 0 to 500 psig
OM-CP-PRTC210-1000A	Thermocouple temperature and pressure data logger, 0 to 1000 psia
OM-CP-PRTC210-5000A	Thermocouple temperature and pressure data logger, 0 to 5000 psia
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 3.6 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 and is sold separately).

To order data logger with NIST calibration certificate, add suffix "-CERT" to model number and add additional cost to price.

Ordering Example: OM-CP-PRTC210-30A-CERT, thermocouple temperature and pressure data logger with NIST calibration certificate, and OM-CP-IFC200, Windows software.