

## Pressure and Temperature Data Logger $\frac{1}{4}$ NPT and Submersible Models Part of the NOMAD® Family

### OM-CP-PRTEMP1000



Optional



OM-CP-PRTEMP1000-0-30-A-SS fully submersible data logger, shown smaller than actual size.



OM-CP-PRTEMP1000-1-100-A-SS data logger with  $\frac{1}{4}$  NPT fitting, shown smaller than actual size.

- ✓ Submersible Models to 100 psia
- ✓ User Calibration through Software
- ✓ Programmable Start Time
- ✓ Real Time Operation

The OM-CP-PRTEMP1000 submersible pressure and temperature data logger is a battery powered, stand-alone device used for automatically recording pressure from 0 to 500 psia and temperatures from -40 to 80°C. This all-in-one compact, portable, easy to use device will measure and record up to 16,383 temperature and 16,383 pressure measurements.

The OM-CP-PRTEMP1000 is a major leap forward in both size and performance. Its real time clock ensures that all data is time and date stamped. The storage medium is non-volatile solid state memory, providing maximum data security even if the battery becomes discharged. Its small size allows it to fit almost anywhere.

Data retrieval is simple. Plug it into an available USB port, the easy to use software does the rest. The software converts your PC into a real time strip chart recorder.

Data can be printed in graphical or tabular format and can also be exported to a text or Microsoft® Excel file.

### Specifications

#### Temperature Sensor:

Semiconductor

**Temperature Accuracy:** 0.5°C

**Temperature Resolution:** 0.1°C

**Temperature Range:**

-40 to 80°C (-40 to 176°F)

**Pressure Sensor:** Strain gage

**Pressure Adaptor:**  $\frac{1}{4}$  male NPT or fully submersible

**Pressure Range:**

0 to 30 psia, 100 psia, 300 psia or 500 psia (psig models also available). Fully submersible data loggers are only available in 0 to 30 psia, 0 to 30 psig, 0 to 100 psia and 0 to 100 psig ranges

**Pressure Accuracy:**

±0.3% FSR @ 25°C;

- Temperature Compensated Range: 0 to 80°C

- Temperature Effect on Span: ±1% FSR @ 25°C; ±0.2% typical

- Temperature Effect on Offset: ±1% FSR @ 25°C; ±0.2% typical

**Pressure/Temperature**

**Calibration:** Digital calibration is available through software

**Calibration Date:** Automatically recorded within device to alert user when calibration is required

**Recording Interval:** 2 secs to 24 hrs selectable through software

**Start/Time:** Start time and date are programmable through software

**Real Time Recording:** Device may be used with PC to monitor/and record data in real time

**Power:** 3.6V lithium battery (included)

**Battery Life:** 1 year typical

**Time Accuracy:** ±1 minute per month at 20°C

**Data Format:** Date and time stamped; gauge: psig, bar, atm, torr, Pa, KPa, MPa, absolute: psia, bar, atm, torr, Pa, KPa, MPa, mmHg, inHg altitude ft, altitude M, °C, °F, K, °R

**Weight:** 340 g (12 oz)

**Computer Interface:** USB (interface cable required); 2400 baud

**Software:** Windows® XP SP3/ Vista/7 and 8 (32- and 64-bit)

**Operating Environment:** -40 to 80°C (-40 to 176°F), 0 to 100% RH non-condensing

**Dimensions:** 32 dia x 163 mm L (1.25 x 6.4")

**Material:** Stainless steel

Reading No.	Temperature (Deg. C)	Pressure (psia)	Date and Time	Annotation
1452	22.0	27.975	Feb 20, 2000 09:10:30 PM	
1453	22.0	27.975	Feb 20, 2000 09:11:30 PM	
1454	22.0	27.978	Feb 20, 2000 09:12:30 PM	Pressure Drop
1455	22.0	27.976	Feb 20, 2000 09:13:30 PM	
1456	21.5	27.970	Feb 20, 2000 09:14:30 PM	
1457	21.0	27.967	Feb 20, 2000 09:15:30 PM	
1458	21.0	27.963	Feb 20, 2000 09:16:30 PM	
1459	20.5	27.961	Feb 20, 2000 09:17:30 PM	
1460	20.5	27.959	Feb 20, 2000 09:18:30 PM	
1461	20.0	27.957	Feb 20, 2000 09:19:30 PM	
1462	20.0	27.957	Feb 20, 2000 09:20:30 PM	
1463	20.0	27.954	Feb 20, 2000 09:21:30 PM	

**Temperature Channel**

- Minimum ..... 19.5 Deg. C
- Maximum ..... 23.5 Deg. C
- Arithmetic Mean ..... 20.8 Deg. C
- Standard Deviation ..... 1.2 Deg. C
- Mean Kinetic Temperature ..... 20.8 Deg. C

**Pressure Channel**

- Minimum ..... 27.904 psia
- Maximum ..... 28.156 psia
- Arithmetic Mean ..... 28.006 psia
- Standard Deviation ..... 0.073 psia

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

Model Number	Pressure Range	Resolution	Proof Pressure	Burst Pressure
OM-CP-PRTEMP1000-(*)-30-A-SS	0 to 30 psia	0.002 psia	90 psia	150 psia
OM-CP-PRTEMP1000-(*)-30-G-SS	0 to 30 psig	0.002 psig	90 psig	150 psig
OM-CP-PRTEMP1000-(*)-100-A-SS	0 to 100 psia	0.005 psia	300 psia	500 psia
OM-CP-PRTEMP1000-(*)-100-G-SS	0 to 100 psig	0.005 psig	300 psig	500 psig
OM-CP-PRTEMP1000-(*)-300-A-SS	0 to 300 psia	0.02 psia	900 psia	1500 psia
OM-CP-PRTEMP1000-(*)-300-G-SS	0 to 300 psig	0.02 psig	900 psig	1500 psig
OM-CP-PRTEMP1000-(*)-500-A-SS	0 to 500 psia	0.05 psia	1200 psia	2400 psia
OM-CP-PRTEMP1000-(*)-500-G-SS	0 to 500 psig	0.05 psig	1200 psig	2400 psig
OM-CP-PRTEMP1000-(*)-1000-A-SS	0 to 1000 psia	0.05 psia	3000 psia	5000 psia
OM-CP-PRTEMP1000-(*)-5000-A-SS	0 to 5000 psia	0.2 psia	7500 psia	7500 psia

**To Order Visit [omega.com/om-cp-prtemp1000](http://omega.com/om-cp-prtemp1000) for Pricing and Details**

Model No.	Range
OM-CP-PRTEMP1000-(*)-30-A-SS	0 to 30 psia
OM-CP-PRTEMP1000-(*)-100-A-SS	0 to 100 psia
OM-CP-PRTEMP1000-(*)-300-A-SS	0 to 300 psia
OM-CP-PRTEMP1000-(*)-500-A-SS	0 to 500 psia
OM-CP-PRTEMP1000-(*)-1000-A-SS	0 to 1000 psia
OM-CP-PRTEMP1000-(*)-5000-A-SS	0 to 5000 psia
OM-CP-PRTEMP1000-(*)-30-G-SS	0 to 30 psig
OM-CP-PRTEMP1000-(*)-100-G-SS	0 to 100 psig
OM-CP-PRTEMP1000-(*)-300-G-SS	0 to 300 psig
OM-CP-PRTEMP1000-(*)-500-G-SS	0 to 500 psig

Accessories	
OM-CP-IFC200	Windows software and 1.8 m (6') USB interface cable
OM-CP-BAT112	Replacement 3.6V lithium battery

\*Insert "1" for 1/4 NPT or "0" for fully submersible data loggers.  
 Comes complete with 3.6V lithium battery. Operator's manual and USB interface cable are included with the OM-CP-IFC200 Windows software (sold separately).  
 To order data logger with NIST calibration certificate, add suffix "-CERT" to model number for additional price (NIST calibration for temperature only).  
 Fully submersible data loggers are only available in 0 to 30 psia, 0 to 30 psig, 0 to 100 psia and 0 to 100 psig ranges.  
**Ordering Example:** OM-CP-PRTEMP1000-1-100-A-SS-CERT pressure and temperature data logger with NIST calibration certificate, 1/4 NPT fitting, 0 to 100 psia range, and OM-CP-IFC200 Windows software and USB interface cable.

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