

## Transient Pressure Data Logger ¼ NPT and Submersible Models Part of the NOMAD® Family

### OM-CP-PRTRANS Series



- ✓ 100 Hz Operation
- ✓ Software-Selectable Trigger
- ✓ Rugged
- ✓ Programmable Start Time
- ✓ 32 Sample Pre-Trigger Buffer



OM-CP-PRTRANS data logger with ¼ NPT fitting, shown smaller than actual size



OM-CP-PRTRANS fully submersible data logger, shown smaller than actual size

It is an all too common paradox: you need to capture transient events at a high sample rate, but the events of interest are erratically spread over a long period.

The OM-CP-PRTRANS pressure recorder can solve your problems. It samples up to 100 Hz (10 ms) but it will only trigger on pressure limits that you set beforehand. You can start the trigger on high or low thresholds and end the trigger after either a chosen number of samples, or when the signal crosses over your stop threshold. The device can record up to 255 events and take as many as 262,143 pressure samples. It also shows up to 32 samples of "pre-trigger" data so that you can learn what caused the trigger in the first place. The OM-CP-PRTRANS is a battery operated unit with a standard ¼ NPT for easy coupling to your pressure systems. It is also completely submersible and the stainless steel sensor can measure the pressure of most common fluids and gases. The non-volatile memory will retain valuable data even if the user-replaceable battery becomes discharged.

The software converts your PC into a real time strip chart recorder. Data can be printed in graphical or tabular format and can be exported to a text or Microsoft file.

The OM-CP-PRTRANS is your solution to the transient pressure problem.

### Specifications

#### Pressure Sensor:

Semiconductor strain gauge  
**Calibrated Accuracy:** 2% FSR, 0.25% @ 25°C typical

**Pressure Response Time:** 0.1 ms (10 to 90% FSR)

**Repeatability:** ±0.5% FSR; ±0.2% typical

**Adaptor:** ¼ MNPT or fully submersible

**Trigger Modes:** Software programmable window size of bi-level start/stop triggers

**Start Time:** Software programmable immediate start time or delay start up to 7 days in advance

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

**Memory:** Up to 262,143 samples

**Number of Events:** Up to 255 triggered events

**Pre-Trigger Size:** Up to 32 samples  
**Recording Interval:** 1 reading every 10 ms to 1 every second

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

**Calibration Date:** Automatically recorded within device

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

**Battery Life:** 3 days continuous @ 10 ms sample rate

Pressure Range	Resolution
0 to 30 psia	0.02 psia
0 to 100 psia	0.1 psia
0 to 300 psia	0.2 psia
0 to 500 psia	0.5 psia
0 to 1000 psia	1.0 psia
0 to 5000 psia	5.0 psia
0 to 30 psig	0.02 psig
0 to 100 psig	0.1 psig
0 to 300 psig	0.2 psig
0 to 500 psig	0.5 psig

**Shelf Life:** Up to 1 year when not in use

**Data Format:** Date and time stamped, psia, psig, inches, feet, mmHg, bar, torr, kPa

**Computer Interface:** PC serial or USB (interface cable required) 115,200 baud

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

**Operating Environment:**

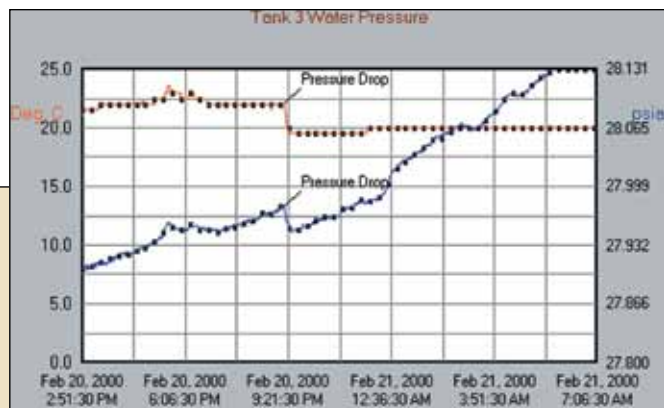
-40 to 80°C (-40 to 176°F)

0 to 100% RH non-condensing

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

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

**Material:** Stainless steel



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

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	Pressure Drop
1454	22.0	27.978	Feb 20, 2000 09:12:30 PM	
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	
1464	20.0	27.954	Feb 20, 2000 09:22:30 PM	
1465	20.0	27.952	Feb 20, 2000 09:23:30 PM	

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

## To Order

Model No.	Description
OM-CP-PRTRANS-0-30A	Transient pressure data logger, 0 to 30 psia, submersible
OM-CP-PRTRANS-0-100A	Transient pressure data logger, 0 to 100 psia, submersible
OM-CP-PRTRANS-0-30G	Transient pressure data logger, 0 to 30 psig, submersible
OM-CP-PRTRANS-0-100G	Transient pressure data logger, 0 to 100 psig, submersible
OM-CP-PRTRANS-1-30A	Transient pressure data logger, 0 to 30 psia, ¼ NPT
OM-CP-PRTRANS-1-100A	Transient pressure data logger, 0 to 100 psia, ¼ NPT
OM-CP-PRTRANS-1-300A	Transient pressure data logger, 0 to 300 psia, ¼ NPT
OM-CP-PRTRANS-1-500A	Transient pressure data logger, 0 to 500 psia, ¼ NPT
OM-CP-PRTRANS-1-1000A	Transient pressure data logger, 0 to 1000 psia, ¼ NPT
OM-CP-PRTRANS-1-5000A	Transient pressure data logger, 0 to 5000 psia, ¼ NPT
OM-CP-PRTRANS-1-30G	Transient pressure data logger, 0 to 30 psig, ¼ NPT
OM-CP-PRTRANS-1-100G	Transient pressure data logger, 0 to 100 psig, ¼ NPT
OM-CP-PRTRANS-1-300G	Transient pressure data logger, 0 to 300 psig, ¼ NPT
OM-CP-PRTRANS-1-500G	Transient pressure data logger, 0 to 500 psig, ¼ NPT
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-BAT102	Replacement 3.6 V lithium battery

Comes complete with 3.6V lithium battery. Operator's manual and USB cable are included with the **OM-CP-IFC200** Windows software (software sold separately).

Fully submersible data loggers are only available in 0-30 psia, 0-30 psig, 0-100 psia and 0-100 psig ranges.

To order data logger with NIST calibration certificate, add suffix "**CERT**" to model number.

**Ordering Example:** **OM-CP-PRTRANS-1-100A-CERT**, transient pressure data logger with NIST calibration certificate, ¼ NPT fitting, 0 to 100 psia range and **OM-CP-IFC200** Windows software and USB interface cable.