

# OM-CP-PRTRANS Series Transient Pressure Data Logger

## 1/4" NPT and Submersible Models Part of the NOMAD® Family



**\$649**  
Basic Unit

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

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 1/4 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.



OM-CP-PRTRANS, \$649, data logger with 1/4 NPT fitting, shown smaller than actual size



OM-CP-PRTRANS, \$649, fully submersible data logger, shown smaller than actual size

### 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:** 1/4 MNPT or fully submersible  
**Trigger Modes:** Software programmable window size of bi-level start/stop triggers  
**Start Time:** Programmable start time and date, 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)

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

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

**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:** WIN98/NT/2000/XP/VISTA 32-bit (VISTA 32-bit version only; VISTA 64-bit is not supported)

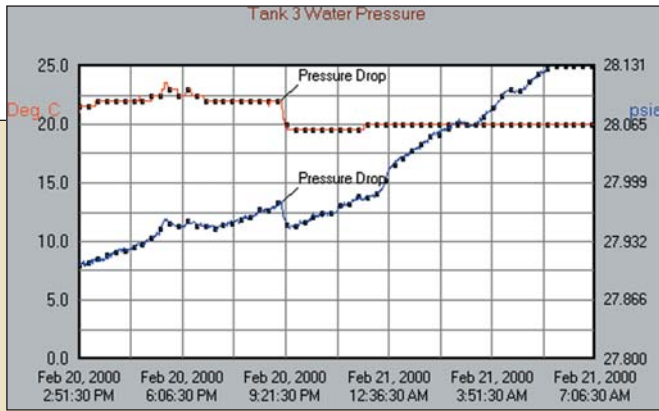
**Operating Environment:** -40 to 80°C (-40 to 176°F)

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-IFC110, \$99, Windows software displays data in graphic or tabular format

MOST POPULAR MODELS HIGHLIGHTED!

**To Order (Specify Model Number)**

Model No.	Price	Description
OM-CP-PRTRANS-0-30A	\$649	Transient pressure data logger, 0 to 30 psia, submersible
OM-CP-PRTRANS-0-100A	649	Transient pressure data logger, 0 to 100 psia, submersible
OM-CP-PRTRANS-0-30G	649	Transient pressure data logger, 0 to 30 psig, submersible
OM-CP-PRTRANS-0-100G	649	Transient pressure data logger, 0 to 100 psig, submersible
OM-CP-PRTRANS-1-30A	649	Transient pressure data logger, 0 to 30 psia, ¼ NPT
OM-CP-PRTRANS-1-100A	649	Transient pressure data logger, 0 to 100 psia, ¼ NPT
OM-CP-PRTRANS-1-300A	649	Transient pressure data logger, 0 to 300 psia, ¼ NPT
OM-CP-PRTRANS-1-500A	649	Transient pressure data logger, 0 to 500 psia, ¼ NPT
OM-CP-PRTRANS-1-1000A	649	Transient pressure data logger, 0 to 1000 psia, ¼ NPT
OM-CP-PRTRANS-1-5000A	649	Transient pressure data logger, 0 to 5000 psia, ¼ NPT
OM-CP-PRTRANS-1-30G	649	Transient pressure data logger, 0 to 30 psig, ¼ NPT
OM-CP-PRTRANS-1-100G	649	Transient pressure data logger, 0 to 100 psig, ¼ NPT
OM-CP-PRTRANS-1-300G	649	Transient pressure data logger, 0 to 300 psig, ¼ NPT
OM-CP-PRTRANS-1-500G	649	Transient pressure data logger, 0 to 500 psig, ¼ NPT
OM-CP-IFC110	99	Windows software and 1.2 m (4') RS-232 cable with DB9F termination
OM-CP-IFC200	119	Windows software and 3.7 m (12') USB interface cable
OM-CP-BAT102	10	Replacement 3.6 V lithium battery

Operator's manual and RS-232 cable are included with the **OM-CP-IFC110** 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 and add \$60 to price.

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-IFC110** Windows software and RS-232 cable, \$649 + 60 + 99 = **\$808**.



#### UNITED STATES

[www.omega.com](http://www.omega.com)  
1-800-TC-OMEGA  
Stamford, CT.

#### CANADA

[www.omega.ca](http://www.omega.ca)  
Laval(Quebec)  
1-800-TC-OMEGA

#### GERMANY

[www.omega.de](http://www.omega.de)  
Deckenpfronn, Germany  
0800-8266342

#### UNITED KINGDOM

[www.omega.co.uk](http://www.omega.co.uk)  
Manchester, England  
0800-488-488

#### FRANCE

[www.omega.fr](http://www.omega.fr)  
Guyancourt, France  
088-466-342

#### CZECH REPUBLIC

[www.omegaeng.cz](http://www.omegaeng.cz)  
Karviná, Czech Republic  
596-311-899

#### BENELUX

[www.omega.nl](http://www.omega.nl)  
Amstelveen, NL  
0800-099-33-44



## More than 100,000 Products Available!

### • Temperature

Calibrators, Connectors, General Test and Measurement Instruments, Glass Bulb Thermometers, Handheld Instruments for Temperature Measurement, Ice Point References, Indicating Labels, Crayons, Cements and Lacquers, Infrared Temperature Measurement Instruments, Recorders Relative Humidity Measurement Instruments, RTD Probes, Elements and Assemblies, Temperature & Process Meters, Timers and Counters, Temperature and Process Controllers and Power Switching Devices, Thermistor Elements, Probes and Assemblies, Thermocouples Thermowells and Head and Well Assemblies, Transmitters, Wire

### • Flow and Level

Air Velocity Indicators, Doppler Flowmeters, Level Measurement, Magnetic Flowmeters, Mass Flowmeters, Pitot Tubes, Pumps, Rotameters, Turbine and Paddle Wheel Flowmeters, Ultrasonic Flowmeters, Valves, Variable Area Flowmeters, Vortex Shedding Flowmeters

### • pH and Conductivity

Conductivity Instrumentation, Dissolved Oxygen Instrumentation, Environmental Instrumentation, pH Electrodes and Instruments, Water and Soil Analysis Instrumentation

### • Data Acquisition

Auto-Dialers and Alarm Monitoring Systems, Communication Products and Converters, Data Acquisition and Analysis Software, Data Loggers Plug-in Cards, Signal Conditioners, USB, RS232, RS485 and Parallel Port Data Acquisition Systems, Wireless Transmitters and Receivers

### • Pressure, Strain and Force

Displacement Transducers, Dynamic Measurement Force Sensors, Instrumentation for Pressure and Strain Measurements, Load Cells, Pressure Gauges, Pressure Reference Section, Pressure Switches, Pressure Transducers, Proximity Transducers, Regulators, Strain Gages, Torque Transducers, Valves

### • Heaters

Band Heaters, Cartridge Heaters, Circulation Heaters, Comfort Heaters, Controllers, Meters and Switching Devices, Flexible Heaters, General Test and Measurement Instruments, Heater Hook-up Wire, Heating Cable Systems, Immersion Heaters, Process Air and Duct, Heaters, Radiant Heaters, Strip Heaters, Tubular Heaters