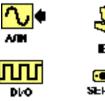


# Compact Portable Dataloggers OM-180 Series



SERIAL VO





- Built-in Signal Conditioning – No External Modules Required
- Battery Backup for Stored Data
- Adaptive and Point Store Storage Modes
- Available With or Without LCD Display
- Standard DOS Analysis Software Included – Optional Windows Software

The OM-180 Series includes eight different application specific datalogger models that offer extreme flexibility from selecting recording length, recording rate, scales and engineering units to the method of playback and display of the information after it's recorded. OM-180 Series loggers come complete with all the accessories required for successful recording and data analysis sessions. There are no additional modules or cables to purchase for a successful recording, even the analysis software is included. Each OM-180 Series datalogger comes fully equipped with pre-configured inputs, serial interface cable, a recharger, operators manual and standard DOS analysis software. These dataloggers are extremely easy to setup and long term operation is virtually maintenance free.





## STORAGE MODES

Adaptive Store

OM-180 Series dataloggers offer two modes of storing data, adaptive and point store. Adaptive is a process designed to collect data in a most efficient, accurate way allocating memory to data storage based on signal dynamics. The result is that both trends and anomalies are accurately recorded. The datalogger samples as fast as possible to provide a true picture of transients, applying more memory to them than to trend data. The sample rate is fixed at 500 ms for recording lengths under 8 days, 1 second for recording lengths of 8 to 15 days and 2 seconds for recording lengths over 15 days. This is the best mode for capturing anomalies and trend data over long periods of time and is the most efficient use of memory. Maximum recording length is 999 days.

Model OM-182K-D shown. Thermocouple probe sold separately.

Sample rate is always 500 ms with recharger plugged in.

## **Point Store**

The point store mode is found in most conventional dataloggers. The storage principal is that every sample taken is stored in memory with its associated time. With the OM-180, you have the ability to select the sample rate and the length of the recording facilitating optimum use of the datalogger's memory. Either variable can be respecified during setup. If the combination of these two variables is not compatible, the last variable programmed is the primary condition and the OM-180 will respecify and display the other to be within the system capability. Available sample intervals are from 12 hours to 250 ms. The recording length is programmable between 1 second and 999 days, an ideal mode for long term trend recording at fixed intervals.

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## OM-181 DC Voltage Datalogger

The OM-181 is a versatile four channel dc voltage logger, each channel having a 0-2 volt dc input. Scales, engineering units, length of recording and recording rate are programmable on this model to provide you maximum flexibility in achieving your data logging goals. Its high input impedance allows you to work with a wide variety of transducers and external signal conditioning equipment such as pressure transducers, strain gage transducers and pH probes.



## OM-182 Thermocouple Input Temperature Datalogger

The OM-182 four channel datalogger allows direct thermocouple input of either J, K, T or N type thermocouples. Thermocouple type is preconfigured at the factory eliminating any need for signal conditioning or calibration in the field. The unit is internally compensated for cold junction and offers the ability to switch Fahrenheit and Centigrade scales. Recording length, recording mode and sample rate are programmable in this model.



## OM-183 4-20 mA Datalogger

The OM-183 is a two channel process variable recording instrument. It comes equipped with two fully isolated channels setup to measure 4-20 mA input signals. Each input has a 100 ohm impedance and is isolated to 50 volts ac or dc. The Model OM-183 is a real workhorse for troubleshooting process control systems and sensors.



### OM-184 Temperature/RH Datalogger

The OM-184 is a fully equipped four channel datalogger ready for dual temperature/RH inputs. Each pair of of inputs works directly with the model OM-180-RR-252B temperature/RH probe. A mini DIN connector directly accepts the temperature/RH probe. Installation is quick and easy. Simply plug in the probe(s), turn on the unit, press one button and begin recording. It's the ideal datalogger for monitoring computer room environments, building health as well as other environmental recording requirements.



### OM-185 AC Volts/Amps Datalogger

The OM-185 is a convenient two channel ac volt and current recording instrument capable of measuring up to 240 volts and will work with all industry standard current transducers with a 1 amp output. Scales on both the voltage and current channels are programmable to match PT (potential transformer) and CT (current transformer) ratios. The OM-185 is excellent for recording voltage and current measurements on single and polyphase lines.



## OM-186 RTD Input Temperature Datalogger

E-10

The OM-186 is a two channel temperature recording device that will work directly with 100 Ohm platinum two, three or four wire RTD's. Centigrade and Fahrenheit scales are programmable as well as recording length and mode of recording.



http://www.omoga.com o-mail: info@omoga.com

### **OM-187 Event Datalogger**

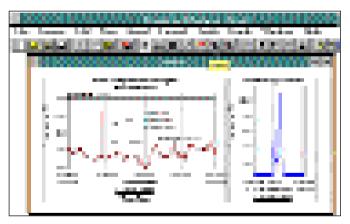
The OM-187 is a conveniently packaged four channel event recorder capable of working with contact closure as well as TTL level signals. This versatility makes this instrument the perfect device to record a variety of event information such as machine efficiency and timing.



## DOS Software (Included with Datalogger)

The DOS version of the Pronto application program is included with all OM-180 Series dataloggers. Features include pull down menus, plot utilities (zoom, add text, change size and location of graph, select graph format, perform statistical analysis), list data in log format to screen or printer, view up to 12 plots on the screen at one time (superimposed, stacked or scattered), notebook function that reports vital statistics and provides a note writing pad and database feature that creates files that are directly compatible with popular database and spreadsheet programs.

## SWD-PRONTO-WIN Windows Software (Optional - Ordered Separately)



Pronto for Windows is a full featured Windows based program that can be ordered separately for use with the OM-180 Series dataloggers. Through the use of straightforward macros and keyboard commands, the operator can graph and analyze data and create hard copy reports. Selection of icons from the toolbar makes all commonly used instructions such as zooming, statistical analysis, printing, annotation and playback as easy as pointing and clicking the mouse. File management is greatly improved through the use of projects which define how the data will be stored and grouped and views which define how the data will appear on screen and in reports. Easy to follow dialog boxes provide step-by-step choices for all data

### **OM-188 AC Voltage Datalogger**

The OM-188 provides three channels of ac voltage recording. Each channel is capable of recording up to 240 volts. Direct input here makes this device extremely flexible and versatile in monitoring single and polyphase voltage to detect surges, sags, brownouts, dropouts and many other variables.



management tasks. A multifunctional communication set allows interface to dataloggers by serial port, local area network or modem, all in the same program. A comprehensive context sensitive help system provides detailed instructions anywhere in the program. Interface to other application software such as spreadsheets or word processors is quick and easy using the Windows clipboard or object linking (OLE).

## **Specifications**

#### COMMON

**No. of Inputs:** 2 to 4 depending on model **Input Types:** Vdc, thermocouple, 4-20 mA, Temperature/RH, Vac/Aac, RTD, events, Vac **Storage Memory:** 128K battery backed up

Sample Mode: adaptive and point store Sample Rate: 500 ms

FIFO Recording: yes

Clock Accuracy: ±0.5 sec/day

Battery Power: 3 Ni-Cad C cells

**Battery Recording Time:** 7 days minimum **Recharging Time:** 48 hrs using standard recharger included; 16 hrs with optional OM-180-RR-123 fast recharger

Battery Backup: data and setup for minimum of 30 days

External Power: 4 Vdc @ 84 mA

Record Modes: adaptive and point store

Accuracy: < 0.5% Resolution: 16 bit

Serial Port: RS-232C at 9600 baud

**Operating Temperature:** 14 to 140°F (-10 to 60°C), 5 to 95% RH non-condensing

Storage Temperature: -4 to 158°F (-20 to 70°C)

Shock and Vibration: Mil Std 810D

**Dimensions:** 4.625" H x 7" W x 2.25" L (117 x 178 x 57 mm)

Weight: 1.5 lbs (0.7 kg)

**Case Material:** ABS polycarbonate



#### MODEL OM-181

No. of Channels: 4 Input Range: 0-2 Vdc Input Impedance: 100 MOhms Input Over Voltage Protection: ±50 Vdc or Vac peak

#### MODEL OM-182

#### No. of Channels: 4

Input Type: J, -300 to 1400°F (-200 to 760°C); K, -300 to 2200°F (-200 to 1200°C); T, -300 to 750°F (-200 to 400°C); N, 32 to 2372°F (0 to 1300°C)

Input Impedance: 100 MOhms Input Over Voltage Protection: ±50 Vdc or Vac peak

#### MODEL OM-183

#### No. of Channels: 2

Input Type: 4-20 mA

Input Impedance: 100 Ohms Isolation: 50 Vdc common mode voltage

#### MODEL OM-184

#### No. of Channels: 4

Input Type: channel 1 and 3, 30-130°F (0-50°C); channel 2 and 4, 0-100% RH

Input Connection: mini DIN connector for each temperature/RH pair

**Temperature/RH Probe:** one supplied, second optional; uses thermistor temperature sensor and mosaic capacitive humidity sensor

#### MODEL OM-185

#### No. of Channels: 2

Input Type: channel 1, 0-240 Vac; channel 2, 0-1 Aac supports 1000:1 current probes

**Impedance:** channel 1, 4 MOhms; channel 2, 1 Ohm

**Isolation:** provided by current probe

#### MODEL OM-186

#### No. of Channels: 2

**Input Type:** 2, 3 or 4-wire 100 Ohm platinum RTD, alpha = 0.00385, -300 to 1450°F (-200 to 800°C)

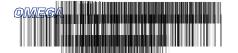
Input Impedance: 100 MOhms Over Voltage Protection: ±50 Vdc or Vac peak

#### MODEL OM-187

#### No. of Channels: 4

**Input Type:** contact closure or TTL (0-48 Vdc)

Input Impedance: 50 KOhms



Over Voltage Protection: ±50 Vdc or Vac peak MODEL OM-188

No. of Channels: 3

Input Type: 0-240 Vac Max Input: 300 Vac Input Impedance: 4 MOhms Input Protection: both sides fused

To Order (Specify Model Number)				
Model No.	Price	Description		
OM-181	\$895	4 channel dc voltage logger without display		
OM-181-D	975	4 channel dc voltage logger with display		
OM-182(*)	895	4 channel thermocouple logger without display		
OM-182(*)-D	975	4 channel thermocouple logger with display		
OM-183	710	2 channel 4-20 mA logger without display		
OM-183-D	795	2 channel 4-20 mA logger with display		
OM-184	1010	4 channel temperature/RH logger without display†		
OM-184-D	1095	4 channel temperature/RH logger with display†		
OM-185	810	2 channel ac volts/amps logger without display		
OM-185-D	895	2 channel ac volts/amps logger with display		
OM-186	810	2 channel RTD logger without display		
OM-186-D	895	2 channel RTD logger with display		
OM-187	640	4 channel event logger without display		
OM-187-D	725	4 channel event logger with display		
OM-188	910	3 channel ac voltage logger without display		
OM-188-D	995	3 channel ac voltage logger with display		

\* Specify thermocouple type J, K, T or N.

† OM-184 and OM-184-D temperature/RH loggers include one OM-180-RR-252B temp/RH probe. Second probe ordered separately.

Dataloggers come complete with RS-232C cable with DB9F termination, 120 Vac 50/60 Hz recharger, operator's manual and DOS analysis software. Other accessories and optional windows software ordered separately.

**Ordering Example:** OM-182J-D 4 channel thermocouple logger with display plus SWD-PRONTO-WIN optional windows software, \$975 + 395 = **\$1370**.

#### Accessories

Model No.	Price	Description
OM-180-RR-107	\$ 25	I/O cable assembly (connects datalogger to data pack)
OM-180-RR-123	68	120 Vac 50/60 Hz fast recharger (4 Vdc @ 225 mA)
OM-180-RR-252B	440	RH/temperature probe with 30' cable & mini DIN termination
OM-180-RR2-261	395	Data pack reader/writer
OM-170-COM-504	289	Modem controller module
OM-180-COM-506	102	LAN RS-485 module
OM-170-COM-550	120	Alarm output module (8 channel TTL)
OM-170-CFG-580	185	User configuration module
OM-180-CFG-582	285	High speed adaptive store module (125 ms 3 channels)
OM-180-DPK-568	565	512K data pack (requires OM-180-RR-107 I/O cable assy)
OM-180-DPK-570	655	1024K data pack (requires OM-180-RR-107 I/O cable assy)

## **Optional Windows Software**

Model No.	Price	Description		
SWD-PRONTO-WIN	395	Windows software for OM-180 Series		

http://www.omega.com e-mail: info@omega.com