OM-SL Series Portable Low-Cost Data Loggers Part of the NOMAD® Family

$249
Basic Unit

- **Measure and Record DC Current, DC Voltage, Aac RMS, Vac RMS, Temperature**
- **Innovative Time Extension Recording Technique-Provides Continuous Recording for any Length of Time Without User Setup**
- **Auto Sampling up to 4096/hr-Provides for Maximum Data Capture**
- **Auto Scaling-Provides for Best Resolution**
- **One-Button Operation**
- **Stores up to 8000 Readings**

OM-SL-L410, $249, shown larger than actual size

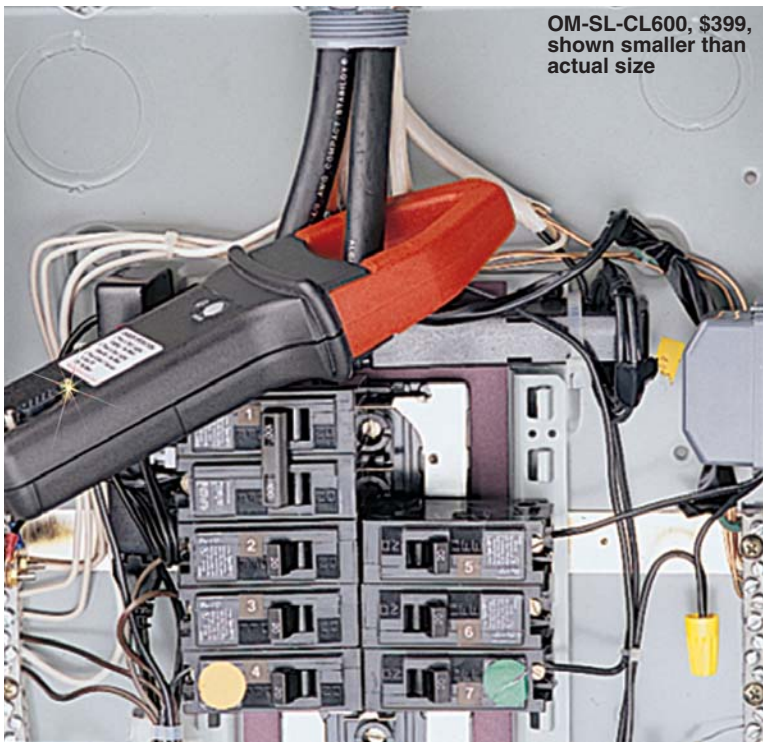
The OM-SL Series consists of single-channel, portable low-cost NOMAD data loggers that require no user setup. These data loggers have the ability to automatically adjust both scale range and sample rate to optimize the recording session. OM-SL Series data loggers operate in three modes: Record, Standby and Off. A red LED indicates the mode of operation. In the RECORD mode, the data logger stores information; in the STANDBY mode, it retains the recorded information for transfer to a computer; in the OFF mode, the memory is cleared. However, if the data logger is turned off by mistake, the cleared data can be easily recovered.

The unique method of scale auto-ranging employed by OM-SL Series data loggers provides you with the best possible resolution for the recording session. Data logging always starts with the highest resolution and lowest scale range. The overall scale is divided into four ranges: 0 to 12.5% of full scale, 0 to 25% of full scale, 0 to 50% of full scale, and 0 to 100% of full scale. Whenever a recorded value crosses over to a higher scale range, the datalogger increases its scale range by a factor of two and repeats the reading. There are 250 steps in each scale range. Resolution can be calculated by dividing the scale range in use by 250. To permit the host computer to interpret the data correctly, the datalogger notes, during the recording process, when each change of scale takes place. Maximum resolution occurs when all the recorded samples stay within the lowest scale range.

OM-SL Series data loggers employ time extension recording, which is an automatic process that updates the sample rate and number of stored data points based on the length of the recording. The maximum number of data points is 8192. When a datalogger starts a new recording session, it does so at its fastest sample rate of 4096 points per hour (0.88 seconds per point). The datalogger can record at this rate for two hours. If the recording session continues beyond two hours, the time extension recording technique becomes active. Beginning with the sample, after the completion of two hours of recording, the data logger continues recording by selectively overwriting previously stored data.

The data logger also halves its sample rate to 2048/hr (1.76 seconds per point) for the new stored values to be compatible with the previously recorded values. Recording continues for the next two hours at this new rate until the remaining 4096 storage points are filled. The time extension recording process of selectively overwriting previously stored data and halving the sample rate for new stored data continues every time the memory fills up. Like the automatic scaling feature, time extension recording is practically invisible to the user.

OM-SL-L230, $319, shown smaller than actual size



OM-SL-CL600, $399, shown smaller than actual size

These data loggers are the easiest tools to use to record data on-site and download it to your computer for analysis. A complete Windows based software package that can graph and analyze the data is included. Models are available to measure temperature, DC voltage, DC current, AC voltage and AC current. A clamp-on model for AC current measurement (OM-SL-CL600), is also available.

RMS Current Input Models OM-SL-L100, OM-SL-L110

RMS current input data loggers support current probes with voltage (OM-SL-L100) or current (OM-SL-L110) outputs. These data loggers are ideal for many applications, including machine load monitoring, load profiling and fault finding.

RMS Voltage Input Models OM-SL-L205, OM-SL-L230, OM-SL-L260

RMS voltage input models are available for either 0 to 25 Vac (OM-SL-L205), 0 to 300 Vac (OM-SL-L230), or 0 to 600 Vac (OM-SL-L260) input.

Typical applications include HVAC troubleshooting, line voltage monitoring, surge/sag monitoring, and stray voltage monitoring.

4-20 mA DC Current Input Model OM-SL-L320

Monitor and troubleshoot your 4 to 20 mA process loops using this DC current input model. The current loop can represent temperature, pressure, flow or any other process parameter. Scale and units are programmable in software.

DC Voltage Input Models OM-SL-L410, OM-SL-L430

DC voltage input models can be used for many applications, including circuit design testing, battery testing, and monitoring process transducers. Models are available for 0 to 100 mV (OM-SL-L410) or 0 to 10 V (OM-SL-L430) input ranges. Scale and units are programmable in software.

Thermistor Input Model OM-SL-L605

If you need to monitor ambient temperature in a computer room, food storage area, refrigerated freight compartment, or in a process, consider this thermistor input model. The OM-SL-L605 measures temperatures via an internal or external thermistor.

Thermocouple Input Models OM-SL-L610, OM-SL-L620, OM-SL-L630

Thermocouple input models are the perfect solution for process temperature monitoring applications. Any type J (OM-SL-L610), type K (OM-SL-L620), or type T (OM-SL-L630) thermocouple can be connected via convenient color-coded subminiature thermocouple input jacks.

OM-SL-L410, $249, shown smaller than actual size

Specifications

GENERAL

No. of Channels: 1

Sample Rate: 4096/hr max

Data Storage: 8192 readings

Storage Technique: Time extension recording

Power: 9 V alkaline battery

Battery Life: Up to 1 year of recording at 25°C

Output: RS-232 via DB9 connector

Indicators: Red LED double flashes in RECORD, single flashes in STANDBY, and is off in OFF mode

Controls: One membrane switch used to start/stop recording and turn logger on/off

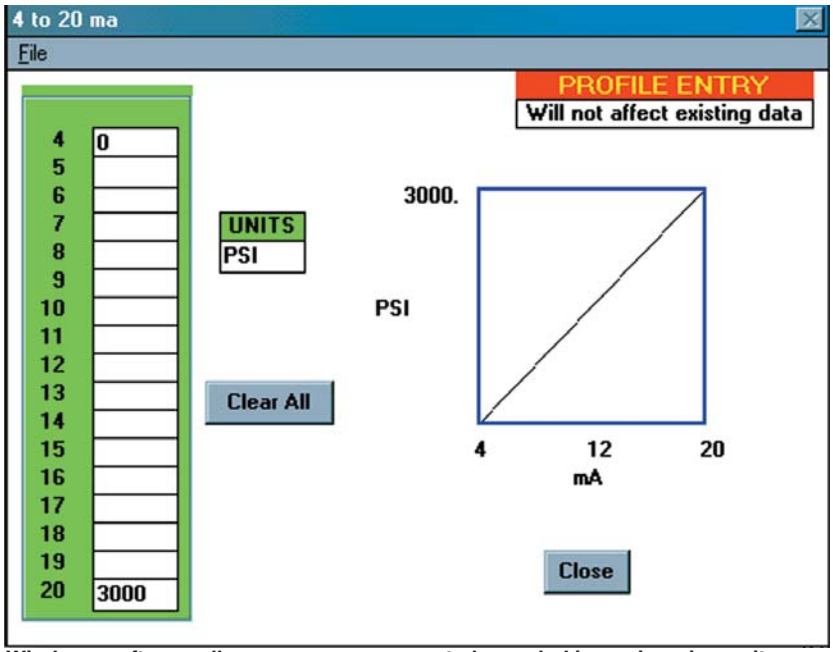
Operating Temperature: -20 to 70°C (-4 to 158°F)

Storage Temperature: -40 to 80°C (-40 to 176°F)

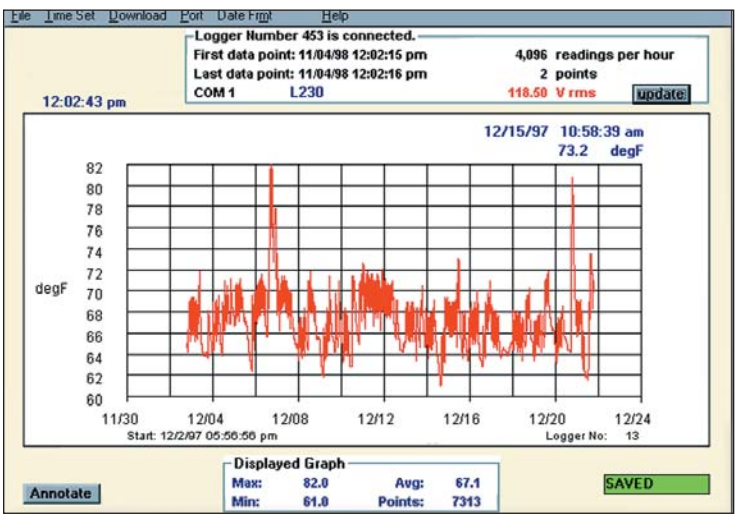
Relative Humidity: 5 to 95% RH non-condensing

Size:
All models except OM-SL-CL600, 73 H x 59 W x 41 mmD (2.9 x 2.3 x 1.6");
OM-SL-CL600, 139 H x 51W x 30 D (5.47 x 2.00 x 1.8")

Weight (with battery):
All models except OM-SL-CL600, 140 g (5 oz);
OM-SL-CL600, 0.48 kg (17 oz)



Windows software allows process sensors to be scaled in engineering units



Windows software displays data in graphical formatå

RMS CURRENT INPUT MODELS OM-SL-L100, OM-SL-L110

Input: OM-SL-L100, 0 to 1 Vac; OM-SL-L110, 0 to 1 Aac

Measurement Range (based on current probe):
OM-SL-L100; 0 to 10,000 Aac; OM-SL-L110, 0 to 3000 Aac

Input Connection:
Safety banana jacks

Resolution: 8 bit (max resolution depends on current probe)

Accuracy: 1% of rdg + resolution

RMS VOLTAGE INPUT MODELS OM-SL-L205, OM-SL-L230, OM-SL-L260

Input: OM-SL-L205, 0 to 25 Vac; OM-SL-L230, 0 to 300 Vac; OM-SL-L260, 0 to 600 Vac

Input Connection:
Safety banana jacks

Resolution: 8 bit; OM-SL-L205, 12.5 mV; OM-SL-L230, 250 mV; OM-SL-L260, 500 mV

Accuracy: 1% of rdg + resolution

4 to 20 mA DC CURRENT INPUT MODEL OM-SL-L320

Input: 0-25.5 mA

Input Impedance: 100 Ω

Working Voltage: 48 Vdc

Input Connection: #10 screw terminal

Resolution: 8 bit (12.5 μA max)

Accuracy: 1% of rdg + resolution

DC VOLTAGE INPUT MODELS OM-SL-L410, OM-SL-L430

Input: OM-SL-L410, 0 to 100 mV; OM-SL-L430, 0 to 10 V

Input Connection: Safety banana jacks

Resolution: 8 bit; OM-SL-L410, 50 μV max; OM-SL-L430, 5 mV max

Accuracy: 1% of rdg + resolution

THERMISTOR INPUT TEMPERATURE MODEL OM-SL-L605

Measurement: OM-SL-L605, internal or external thermistor

Input: 10 KΩ thermistor @ 25°C

Measurement Range: Internal sensor, -20 to 70°C (-4 to 158°F); external sensor, -20 to 100°C (-4 to 212°F)

Input Connection: Phone jack

Resolution: 8 bit; 0.075°C max

Accuracy: 1% of rdg ±0.25°C

THERMOCOUPLE INPUT TEMPERATURE MODELS OM-SL-L610, OM-SL-L620, OM-SL-L630

Input: OM-SL-L610, type J; OM-SL-L620, type K; OM-SL-L630, type T

Measurement Range: OM-SL-L610 (type J), 0 to 750°C (32 to 1380°F); OM-SL-L620 (type K), -200 to 1250°C (-325 to 2280°F); OM-SL-L630 (type T), -200 to 350°C (-325 to 660°F)

Input Connection: Miniature color-coded thermocouple jacks

Resolution: 12 bit; >0.5°C for all models

Accuracy: 0.5% of rdg + thermocouple accuracy

CLAMP-ON RMS CURRENT MODEL OM-SL-CL600

Input: 0 to 600 Aac RMS

Input Connection: Integral split jaw

Max Conductor Size: 1.18" dia cable; 1.196" x 0.19" dual bus bar

Resolution: 8-bit (0.5 A)

Accuracy (centered conductor): 2% of rdg ± resolution (0 to 400A); 5% of rdg (400 to 600A)

ALL MODELS AVAILABLE FOR FAST DELIVERY!

To Order *(Specify Model Number)*

Model No.	Price	Description
OM-SL-L100	$299	RMS current logger, 0 to 1 Vac input
OM-SL-L110	299	RMS current logger, 0 to 1 Aac input
OM-SL-L205	299	RMS voltage logger, 0 to 25 Vac input
OM-SL-L230	319	RMS voltage logger, 0 to 300 Vac input
OM-SL-L260	319	RMS voltage logger, 0 to 600 Vac input
OM-SL-L320	249	DC current logger, 4 to 20 mA input
OM-SL-L410	249	DC voltage logger, 0 to 100 mV input
OM-SL-L430	249	DC voltage logger, 0 to 10 V input
OM-SL-L605	249	Temperature logger (internal/external thermistor sensor)
OM-SL-L610	249	Temperature logger, type J T/C input
OM-SL-L620	249	Temperature logger, type K T/C input
OM-SL-L630	249	Temperature logger, type T T/C input
OM-SL-CL600	399	Clamp-on RMS current logger, 0 to 600 Aac input
CS-3785	150	Reference Book: McGraw-Hill Dictionary of Scientif and Technical Terms

All data loggers are supplied with complete operator's manual, 9 V battery, Windows based graphing and analysis software, and 1.4 m (6') DB9 RS-232 cable. All AC voltage and DC voltage input models also include a set of 1.3 m (5') long test leads.
Ordering Example: OM-SL-L620**, type K thermocouple input temperature logger, and **OMEGACARE**℠ 1-year extended warranty for **OM-SL-L620** (adds 1 year to standard 1-year warranty). **$249 + 25 = $274.

Accessories

Model No.	Price	Description
OM-SL-TH	$49	External 1.4 m (6') thermistor with epoxy bead
OM-SL-TH-SS	69	External 1.4 m (6') el sheath
OM-SL-RS232-DB9	20	Replacement 1.4 m (6') RS-232 cable with DB9F termination
OM-SL-110VAC	22	110 Vac outlet adaptor for Model OM-SL-L230 or OM-SL-L260
OM-SL-VL	42	Replacement test leads for AC or DC voltage input models

Current Probes for RMS Current Input Models*

Model No.	Price	Range	Output
HHM806	$299	1 to 500 A	1 mV/A
HHM808	299	1 to 1000 A	1 mV/A
HHM812	469	10 to 6000 A	0.1 mV/A
HHM812-36	519	10 to 6000 A	0.1 mV/A
HHM814	519	10 to 10000 A	0.1 mV/A
HHM814-36	569	10 to 10000 A	0.1 mV/A
HHM814-48	619	10 to 10000 A	0.1 mV/A

**Refer to the OMEGA Temperature Measurement Handbook and Encyclopedia, Section Q for complete specifications.*

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