SIMPLE LOGGER® II

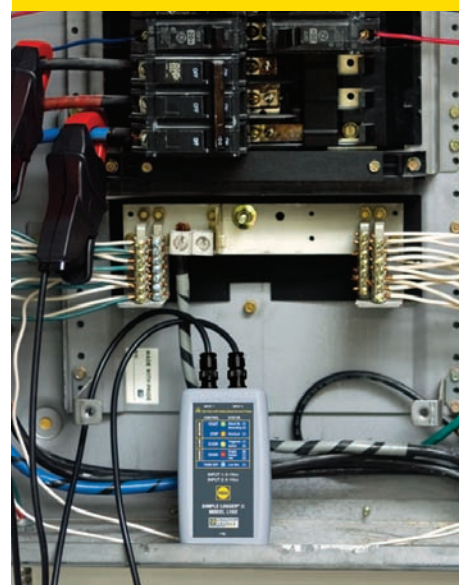# For effective analysis of your network, the Simple Logger® II records everything!

Data Loggers

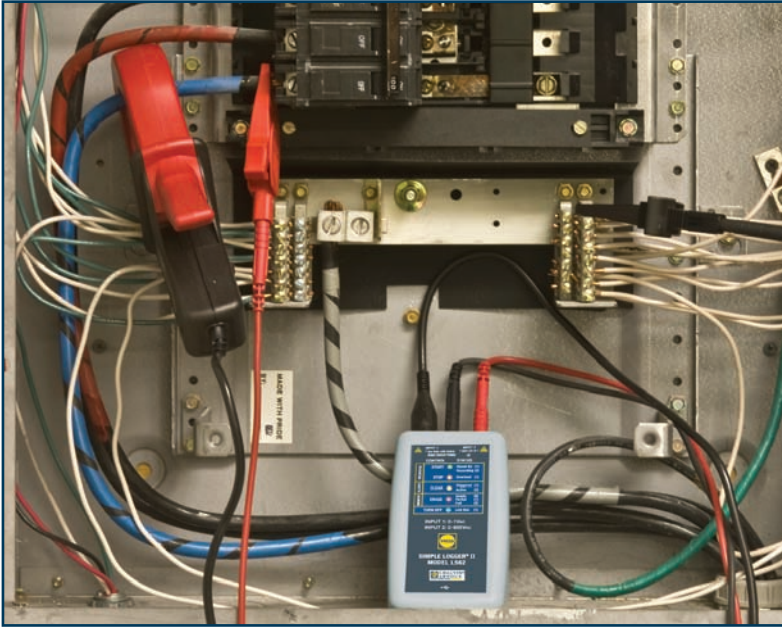### AC Current
AC Voltage
DC Current
DC Voltage
Temperature

- ► **Programmable storage modes**
- ► **Programmable storage rates**
- ► **Stores up to 240,000 measurements**
- ► **Runs on alkaline batteries**
- ► **Optically-isolated USB port**
- ► **Includes DataView® graphing, analysis and report generation software**
- ► **Display and analyse real-time data on your PC**

DATA LOGGING MADE SIMPLE...
Simple Logger® II

L562 monitoring voltage and current in a load centre.

The Simple Logger® II data logger family is a cost-effective, advanced-design product line incorporating features and functions not found in data loggers costing 2 to 3 times their price.

The choice of data storage modes and storage rates allows the operator to effortlessly configure these loggers to optimise memory usage for the application required.

Extended Recording Mode (XRM™) and delayed start time are just two of the many application-friendly features in these loggers.

An internal memory of 512 kB allows storage of over 240,000 measurements, more than enough for most data collection needs. All AC measurement loggers are True RMS (TRMS) and all DC measurement loggers allow the user to program both scale and engineering units.

A full set of alarm programming tools allows programming of alarm set points and triggering on high, low, inside or outside trigger points.

Their battery operation and compact size allow installation in tight locations without the need for external power. A series of front-panel LEDs provides a quick overview of the logger's state and memory usage.

DataView® application software is included, providing real-time viewing of measurement data even while recording. Instrument configuration, data storage and report generation from predefined templates or operator custom-designed templates are also standard features. In addition, several data loggers can be synchronized to record at the same time intervals using DataView®.

Nine models are available to record various AC, DC or Temperature measurements. The pages that follow provide more specific information on each model, the available accessories and the DataView® software.

FEATURES

► True RMS measurements provide an accurate representation of measured signals for AC models

► Choice of data storage modes to assist in matching the data collection to the application needs

► Stores over 240,000 measurements, ensuring that no valuable data is missed; (more than 8 hours at 8 samples per second; approximately 1 week at one sample every 2 seconds)

► Compact size and battery operation

► Quick and easy to install anywhere, operational in seconds

► Display and analyse real-time data through your PC

APPLICATIONS

► DataView® helps electricians or engineers to detect problems occurring randomly in fault/intermittent current detection

► Neutral current monitoring to detect unwanted leakage currents

► Harmonic real-time current monitoring to locate unwanted energy which causes equipment failure

► Load profiling which sizes loads for proper transformer and meter selection

► Split-phase load monitoring for residential voltage and current

► Machine load monitoring detects overload conditions causing premature equipment failure due to overheating

► Process loop monitoring - finds troubled sensors and controls

► HVAC and general temperature profiling (refrigeration and air-conditioning systems)

Data*View*®
Simple Logger® II

DataView® software provides a convenient way to configure and control power analysis tests from your computer. Through the use of clear and easy-to-use tabbed dialogue boxes, all Simple Logger® II functions can be configured and tests can be initiated. Results can be displayed in real time and stored in your PC or the logger. Reports may be printed along with the operator's comments and analysis.

DataView® is included with all Simple Logger® II models.
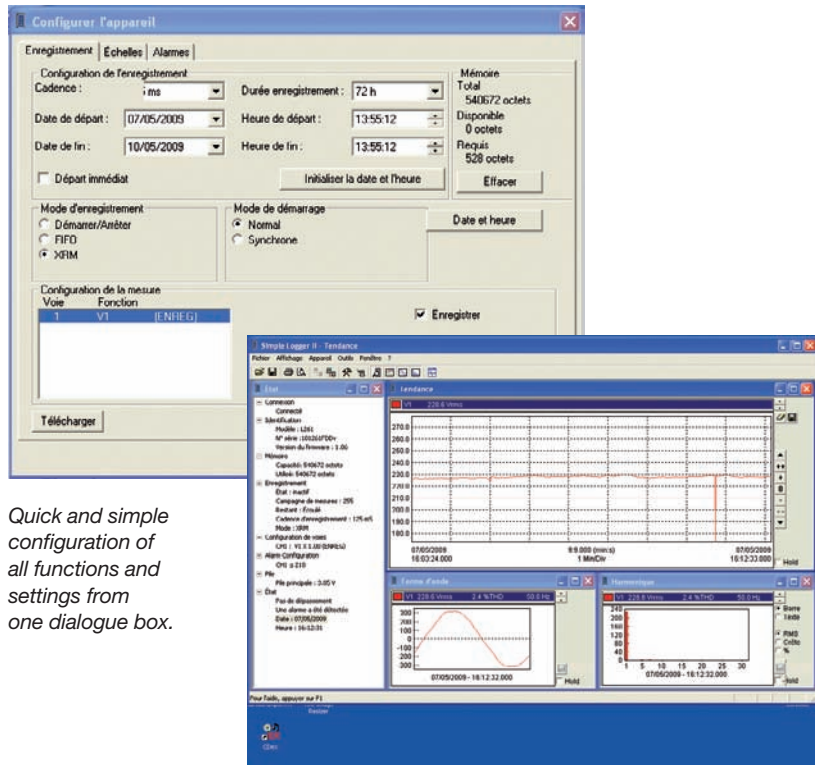
Quick and simple configuration of all functions and settings from one dialogue box.

Real-time view of trend, waveform and status screens.

FEATURES

► Display and analyse real-time data on your PC

► Record real-time to your PC

► Configure all data logger functions and parameters from your PC including sample rate, recording length, channel configuration and more

► Create and store a library of configurations which can be uploaded to the logger as needed

► Zoom in and out and pan through sections of the graph to analyse the data

► Download, display and analyse recorded data

► Display waveforms, trend graphs, harmonics (AC models) and text summaries in real time

► Create custom views and reports

► Print reports using standard or custom templates that you design

► Free software upgrades

Configure all alarm functions with straightforward selections.

MINIMUM SYSTEM REQUIREMENTS

► Windows 2000/XP/Vista® operating system

► 128 MB of RAM for Windows 2000 (256 MB recommended)

  256 MB of RAM for Windows XP

  512 MB of RAM for Windows Vista®

► 80 MB of hard disk space (200 MB recommended)

► CD-ROM drive

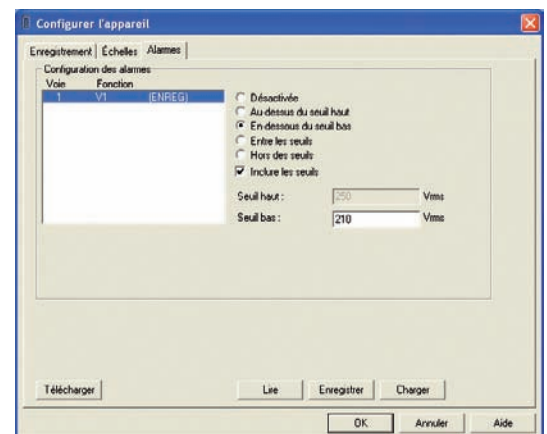*Windows a registered trademark of Microsoft Corporation in the United States and/or other countries.*

MONITORING THE TEMPERATURE OF A ROTARY FURNACE

To prevent possible damage to the equipment, avoid unscheduled production shutdowns and simultaneously cut costs, it is a good idea to monitor furnace operation.

Such monitoring means implementing a Process system which continuously measures the furnace temperature and automatically detects any changes.

On any 4-20 logger, the 4 mA level corresponds to the furnace's minimum temperature, while the 20 mA level represents the maximum temperature. Sensors equipped with a 4-20 mA output are directly compatible with most control systems.

In the case we have chosen, after unexplained interruptions of the process, the technician sets up a logger to record over several days. The recording reveals power outages on the 4-20 mA transmitters at midday. Thanks to this information, it becomes clear that these outages occur when the crushers on the site, which are connected to the same network, are started up.

The 4-20 mA logger is ideal for measuring and monitoring electrical signals in a transmitter loop. Any fault occurring on the current loop causes the process control system to malfunction.

MAINTENANCE ON HEATING AND AIR-CONDITIONING SYSTEM

In a building entirely given up to offices, the staff on the 2nd floor report an air-conditioning malfunction, as the temperature has risen very quickly above the programmed temperature.

The control system then restarts correctly. A logger is set up on the electrical cabinet corresponding to the 2nd floor. Monitoring of the system's current consumption reveals that the current suddenly dropped to zero due to unwanted shutdown of an air-conditioning ventilation system.

The graph of the current based on the logger data shows several random outages. An inspection by the technical team confirms that the fault is due to the fan motor. A cut on one of the power supply cables had caused insulation problems at higher temperatures.

Widely used for monitoring consumption by the loads, this type of logger can reveal untimely interruptions due to power outages or tripping of the main power disconnector or the protective RCD.

Simple Logger® II
TRMS Clamp-On Current Model CL601

Model CL601

Model CL601 includes type A
to 5-pin mini-B USB 2M,
DataView® CD,
two 1.5 V AA-cell alkaline batteries
and user manual.

FEATURES

▶ 0 to 600 Arms
▶ True RMS AC measurements
▶ Self-contained, no exposed connections
▶ Overload indication
▶ Optically-isolated USB 2.0 output (cable included)
▶ One-button operation
▶ Alarm function
▶ 5 LED indicators display logger status quickly and clearly
▶ Includes FREE DataView® software for data storage, real-time display, analysis and report generation
▶ USB cable included
▶ 300 V CAT IV, 600 V CAT III

APPLICATIONS

▶ Machine load monitoring
▶ HVAC troubleshooting
▶ Load profiling
▶ Electrical troubleshooting
▶ Start/Stop time-stamping

SPECIFICATIONS

MODEL	CL601
ELECTRICAL SPECIFICATIONS	
Channels	1
Input connection	Split CT – AC Current
Current range	0 to 600 A$_{AC}$
Resolution	0.1 A
Accuracy (50/60Hz)	0 to 5 A: unspecified 5 to 50 A: ±(1% of Reading + 1 A) 50 to 400 A: ±(1% of Reading + 0.5 A) 400 to 600 A: ±(3% of Reading + 1 A)
Sample rate	64 samples/cycle
Storage rate	Programmable from 125 ms to 1 day
Storage modes	Start/Stop, FIFO and Extended Recording Mode (XRM™)
Recording length	15 minutes to 8 weeks, programmable using DataView®
Memory	240,000 measurements (512 kB). The recorded data is stored in non-volatile memory retained even if the battery is low or removed.
Communication	USB 2.0 optically isolated
Power source	2 x 1.5 V AA-cell alkaline batteries
Battery life	100 hours to >45 days (dependent on storage rate/recording length)
MECHANICAL SPECIFICATIONS	
Dimensions	235 x 102 x 41 mm (9.25 x 4.0 x 1.63")
Max conductor size	1 conductor - Ø 42 mm (1.65"), 2 conductors - Ø 25.4 mm (1.00") each
Weight (with battery)	485 g (17,1 oz)
Casing	UL94-V0
Vibration	IEC 60068-2-6 (1.5 mm, 10 to 55 Hz)
Shock	IEC 68-2-27 (30 G)
Drop	IEC 68-2-32 (1 m)
ENVIRONMENTAL SPECIFICATIONS	
Operating temperature	-10 to +50 °C (14 to 122 °F)
Storage temperature	-20 to +60 °C (-4 to +140 °F)

Easily log current in power panels.

Simple Logger® II
TRMS Current Model L101

Model L101

Model L101 includes type A to 5-pin mini-B USB 2M, DataView® CD, two 1.5 V AA-cell alkaline batteries and user manual. Probes sold separately.

FEATURES

▶ Compatible with standard AC current probes with voltage output and BNC connection (see chart on page 13 for compatible current probes)
▶ 64 samples per cycle
▶ Programmable storage rates from 8 per second to 1 per day
▶ 3 user-selectable storage modes
▶ Stores up to 240,000 measurements in non-volatile memory
▶ Powered by standard alkaline batteries
▶ Lightweight, compact, fits anywhere
▶ 5 LED indicators display logger status quickly and clearly
▶ Includes FREE DataView® software for data storage, real-time waveform display, analysis and report generation
▶ Isolated USB communication
▶ USB cable included
▶ 50 V CAT III

APPLICATIONS

▶ Load profiling
▶ Fault current detection
▶ Intermittent problem detection
▶ Demand recording
▶ Neutral current monitoring
▶ Harmonic current monitoring using DataView® software
▶ Metering CT resizing
▶ Start/Stop time-stamping

SPECIFICATIONS

MODEL	L101
ELECTRICAL SPECIFICATIONS	
Channels	1
Input connection	BNC
Current-probe output-voltage range	0 to 1 V$_{AC}$ (depending on probe)
Resolution	0.1 mV
Accuracy (50/60 Hz)	0 to 10 mV: unspecified 10 to 50 mV: ±(0.5% of Reading + 1 mV) 50 to 1,000 mV: ±(0.5% of Reading + 0.5 mV)
Sample rate	64 samples/cycle
Storage rate	Programmable from 125 ms to 1 day
Storage modes	Start/Stop, FIFO and Extended Recording Mode (XRM™)
Recording length	15 minutes to 8 weeks, programmable using DataView®
Memory	240,000 measurements (512 kB). The recorded data is stored in non-volatile memory and retained even if the battery is low or removed.
Communication	USB 2.0 optically isolated
Power source	2 x 1.5 V AA-cell alkaline batteries
Battery life	100 hours to >45 days (depending on storage rate/recording length)
MECHANICAL SPECIFICATIONS	
Dimensions	136 x 70 x 32 mm (5.38 x 2.75 x 1.28")
Max conductor size	Depends on current probe
Weight (with battery)	180 g (6.4 oz)
Casing	UL94-V0
Vibration	IEC 68-2-6 (1.5 mm, 10 to 55 Hz)
Shock	IEC 68-2-27 (30 G)
Drop	IEC 68-2-32 (1 m)
ENVIRONMENTAL SPECIFICATIONS	
Operating temperature	-10 to +50 °C (14 to 122 °F)
Storage temperature	-20 to +60 °C (-4 to +140 °F)

L101 recording branch circuit current.

SIMPLE LOGGER® II
TRMS Current Model L102

Model L102

Model L102 includes type A to 5-pin mini-B USB 2M, DataView® CD, two 1.5 V AA-cell alkaline batteries and user manual. Probes sold separately.
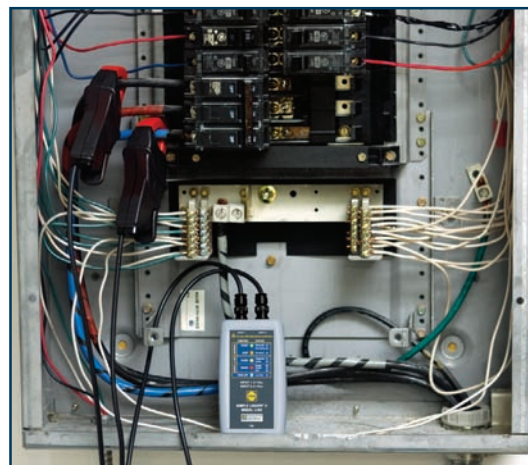
FEATURES

- ▶ Two independent channels
- ▶ Compatible with standard AC current probes with voltage output and BNC connection (see chart on page 13 for compatible current probes)
- ▶ 64 samples per cycle
- ▶ 2 inputs
- ▶ Programmable storage rates from 8 per second to 1 per day
- ▶ 3 user-selectable storage modes
- ▶ Stores up to 240,000 measurements in non-volatile memory
- ▶ Powered by standard alkaline batteries
- ▶ Lightweight, compact, fits anywhere
- ▶ 5 LED indicators display logger status quickly and clearly
- ▶ Includes FREE DataView® software for data storage, real-time waveform display, analysis and report generation
- ▶ Isolated USB communication
- ▶ USB cable included
- ▶ 50 V CAT III

APPLICATIONS

- ▶ Split-phase load monitoring
- ▶ Neutral and earth current monitoring
- ▶ Intermittent problem detection
- ▶ Harmonic current monitoring using DataView® software
- ▶ Machine load monitoring
- ▶ Start/Stop time-stamping

SPECIFICATIONS

MODEL	L102
ELECTRICAL SPECIFICATIONS	
Channels	2
Input connection	One BNC connector per channel
Current-probe output-voltage range	0 to 1 V$_{AC}$ (depending on probe)
Resolution	0.1 mV
Accuracy (50/60 Hz)	0 to 10 mV: unspecified 10 to 50 mV: ±(0.5% of Reading + 1 mV) 50 to 1,000 mV: ±(0.5% of Reading + 0.5 mV)
Sample rate	64 samples/cycle
Storage rate	Programmable from 125 ms to 1 day
Storage modes	Start/Stop, FIFO and Extended Recording Mode (XRM™)
Recording length	15 minutes to 8 weeks, programmable using DataView®
Memory	240,000 measurements (512 kB). The recorded data is stored in non-volatile memory & retained even if the battery is low or removed.
Communication	USB 2.0 optically isolated
Power source	2 x 1.5 V AA-cell alkaline batteries
Battery life	100 hours to > 45 days (depending on storage rate/recording length)
MECHANICAL SPECIFICATIONS	
Dimensions	136 x 70 x 32 mm (5.38 x 2.75 x 1.28")
Max conductor size	Depends on current probe
Weight (with battery)	180 g (6.4 oz)
Casing	UL94-V0
Vibration	IEC 68-2-6 (1.5 mm, 10 to 55 Hz)
Shock	IEC 60068-2-27 (30 G)
Drop	IEC 60068-2-32 (1 m)
ENVIRONMENTAL SPECIFICATIONS	
Operating temperature	-10 to +50 °C (14 to 122 °F)
Storage temperature	-20 to +60 °C (-4 to +140 °F)

L102 recording two phases of primary feed.

Simple Logger® II
TRMS Current Model L111

Model L111

Model L111 includes type A to 5-pin mini-B USB 2M, DataView® CD, two 1.5 V AA-cell alkaline batteries and user manual. Probes sold separately.

FEATURES

▶ Compatible with standard AC current probes with current output and banana plug connection
▶ Fused input
▶ 64 samples per cycle
▶ Programmable storage rates from 8 per second to 1 per day
▶ 3 user-selectable storage modes
▶ Stores up to 240,000 measurements in non-volatile memory
▶ Powered by standard alkaline batteries
▶ Lightweight, compact, fits anywhere
▶ 5 LED indicators quickly and clearly display logger status
▶ Isolated USB communication
▶ Includes FREE DataView® software for data storage, real-time waveform display, analysis and report generation
▶ USB cable included
▶ 50 V CAT III

APPLICATIONS

▶ Load profiling
▶ Fault current detection
▶ Intermittent problem detection
▶ Demand recording
▶ Neutral current monitoring
▶ Harmonic current monitoring using DataView® software
▶ Metering CT resizing
▶ Start/Stop time-stamping

SPECIFICATIONS

MODEL	L111
ELECTRICAL SPECIFICATIONS	
Channels	1
Input connection	Two recessed banana jacks
Current-probe output-current range	0 to1 A$_{AC}$ (depending on probe)
Resolution	0.1 mA
Accuracy (50/60 Hz)	0 to 10 mA: unspecified 10 to 50 mA: ±(0.5% of Reading + 1 mA) 50 to 1,000 mA: ±(0.5% of Reading + 0.5 mA)
Sample rate	64 samples/cycle
Storage rate	Programmable from 125 ms to 1 day
Storage modes	Start/Stop, FIFO and Extended Recording Mode (XRM™)
Recording length	15 minutes to 8 weeks, programmable using DataView®
Memory	240,000 measurements (512 kB). The recorded data is stored in non-volatile memory & retained even if the battery is low or removed.
Communication	USB 2.0 optically isolated
Power source	2 x 1.5 V AA-cell alkaline batteries
Battery life	100 hours to >45 days (dependent on storage rate/recording length)
MECHANICAL SPECIFICATIONS	
Dimensions	132 x 70 x 32 mm (5.18 x 2.75 x 1.28")
Max conductor size	Depends on current probe
Weight (with battery)	188 g (6.64 oz)
Casing	UL94-V0
Vibration	IEC 68-2-6 (1.5 mm, 10 to 55Hz)
Shock	IEC 68-2-27 (30 G)
Drop	IEC 68-2-32 (1m)
ENVIRONMENTAL SPECIFICATIONS	
Operating temperature	-10 to +50 °C (14 to 122 °F)
Storage temperature	-20 to +60 °C (-4 to +140 °F)

Simple Logger® II
TRMS 600 V AC/DC Model L261

Model L261

*Model L261 includes type A
to 5-pin mini-B USB 2M,
DataView® CD,
two 1.5 V AA-cell alkaline batteries
and user manual.*

FEATURES

▶ TRMS voltage recording up to 600 V AC/DC
▶ 64 samples per cycle
▶ Programmable storage rates from 8 per second to 1 per day
▶ 3 user-selectable storage modes
▶ Stores up to 240,000 measurements in non-volatile memory
▶ Powered by standard alkaline batteries
▶ Lightweight, compact, fits anywhere
▶ 5 LED indicators display logger status quickly and clearly
▶ Includes FREE DataView® software for data storage, real-time waveform display, analysis and report generation
▶ Isolated USB communication
▶ USB cable included
▶ 300 V CAT IV; 600 V CAT III

APPLICATIONS

▶ Surge and Sag recording
▶ Long-term supply monitoring
▶ Industrial, commercial and residential monitoring
▶ Monitor voltage harmonics
▶ Find intermittent voltage problems
▶ Machine monitoring

SPECIFICATIONS

MODEL	L261
ELECTRICAL SPECIFICATIONS	
Channels	1
Input connection	2 recessed 4mm safety banana jacks
Voltage range	0 to 600 V AC/DC
Resolution	0,1 V
Accuracy (50/60Hz)	0 to 5 V: unspecified 5 to 50 V: ±(0.5% of Reading + 1 V) 50 to 600 V: ±(0.5% of Reading + 0.5 V)
Sample rate	64 samples/cycle
Storage rate	Programmable from 125 ms to 1 day
Storage modes	Start/Stop, FIFO and Extended Recording Mode (XRM™)
Recording length	15 minutes to 8 weeks, programmable using DataView®
Memory	240,000 measurements (512 kB). The recorded data is stored in non-volatile memory & retained even if the battery is low or removed.
Communication	USB 2.0 optically isolated
Power source	2 x 1.5 V AA-cell alkaline batteries
Battery life	100 hours to >45 days (depending on storage rate/recording length)
MECHANICAL SPECIFICATIONS	
Dimensions	125 x 70 x 32 mm (4.94 x 2.75 x 1.28")
Weight (with battery)	180 g (6.4 oz)
Casing	UL94-V0
Vibration	IEC 68-2-6 (1.5 mm, 10 to 55 Hz)
Shock	IEC 68-2-27 (30 G)
Drop	IEC 68-2-32 (1 m)
ENVIRONMENTAL SPECIFICATIONS	
Operating temperature	-10 to +50 °C (14 to 122 °F)
Storage temperature	-20 to +60 °C (-4 to +140 °F)

*Model L261 includes set of two colour-coded 1.5 m (5 ft)
voltage leads, colour-coded crocodile clips (red/black).*

Simple Logger® II
Voltage/Current Model L562

Model L562

*Model L562 includes type A
to 5-pin mini-B USB 2M,
DataView® CD,
two 1.5 V AA-cell alkaline batteries
and user manual.
Probes sold separately.*

FEATURES

- ▶ 2 input channels
- ▶ Voltage: 0 to 600 V AC/DC TRMS
- ▶ Current: compatible with current probes with voltage outputs (see page 13)
- ▶ 64 samples per cycle
- ▶ 3 user-selectable storage modes
- ▶ Programmable storage rates from 8 per second to 1 per day
- ▶ Stores up to 240,000 measurements in non-volatile memory
- ▶ Powered by standard alkaline batteries
- ▶ Lightweight, compact, fits anywhere
- ▶ 5 LED indicators display logger status quickly and clearly
- ▶ Includes FREE DataView® software for data storage, real-time waveform display, analysis and report generation
- ▶ USB cable included
- ▶ 300 V CAT IV; 600 V CAT III with a safety-rated current probe attached

APPLICATIONS

- ▶ Single-phase power monitoring
- ▶ Residential, commercial and industrial troubleshooting
- ▶ Find sags and surges
- ▶ Track energy usage
- ▶ Start/Stop time-stamping

SPECIFICATIONS

MODEL	L562	
ELECTRICAL SPECIFICATIONS		
Channels	2	
Connection	**Current channel**	**Voltage channel**
Input connection	BNC	2 recessed banana jacks
Voltage range	0 to 1 V AC*	0 to 600 V AC/DC
Resolution	0.1 mV	0.1 V
Accuracy (50/60Hz)	0 to 10 Mv / unspecified 10 to 50 mV: ±(0.5% of Reading + 1 mV) 50 to 1,000 mV: ±(0.5% of Reading + 0.5 mV)	0 to 5 V: unspecified 5 to 50 V: ±(0.5% of Reading + 1 V) 50 to 600 V: ±(0.5% of Reading + 0.5 V)
Sample rate	64 samples/cycle	
Storage rate	Programmable from 125 ms to 1 day	
Storage modes	Stop when full, FIFO and Extended Recording Mode (XRM™)	
Recording length	15 minutes to 8 weeks, programmable using DataView®	
Memory	240,000 measurement (512 kB). The recorded data is stored in non-volatile memory & retained even if the battery is low or removed.	
Communication	USB 2.0 optically isolated	
Power source	2 x 1.5 V AA-cell alkaline batteries	
Battery life	100 hours to >45 days (depending on storage rate/recording length)	
MECHANICAL SPECIFICATIONS		
Dimensions	5.38 x 2.75 x 1.28" (136 x 70 x 32mm)	
Max conductor size	Depends on current probe	
Weight (with battery)	181 g (6.4 oz)	
Casing	UL94-VO	
Vibration	IEC 68-2-6 (1.5 mm, 10 to 55 Hz)	
Shock	IEC 68-2-27 (30 G)	
Drop	IEC 68-2-32 (1 m)	
ENVIRONMENTAL SPECIFICATIONS		
Operating temperature	-10 to +50 °C (14 to 122 °F)	
Storage temperature	-20 to +60 °C (-4 to +140 °F)	

*Model L562 includes set of two colour-coded
1.5 m (5 ft) voltage leads,
colour-coded crocodile clips (red/black).*

*For current probes with voltage output.

Simple Logger® II
4 to 20 mADC Current Model L322

Model L322

Model L322 includes type A to 5-pin mini-B USB 2M, DataView® CD, two 1.5 V AA-cell alkaline batteries and user manual.
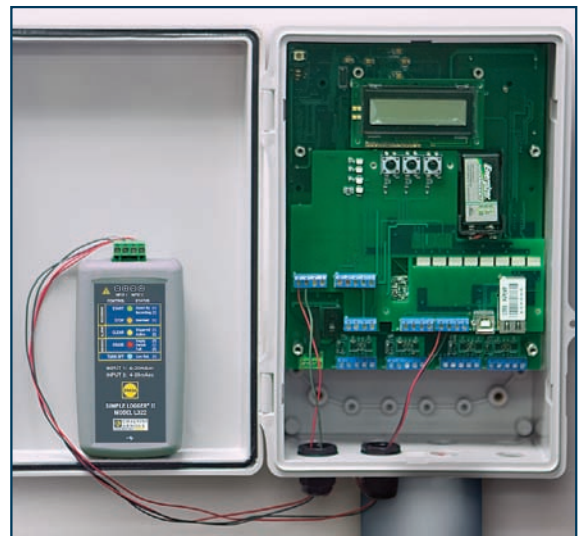
FEATURES

▶ 2 independent input channels
▶ -20 to +20 mADC
▶ Programmable storage rates from 8 per second to 1 per day
▶ 3 user-selectable storage modes
▶ Stores up to 240,000 measurements in non-volatile memory
▶ Scaling and engineering units entered via software prior to saving
▶ Powered by standard alkaline batteries
▶ Lightweight, compact, fits anywhere
▶ 5 LED indicators display logger status quickly and clearly
▶ Includes FREE DataView® software for data storage, real-time display, analysis and report generation
▶ USB cable included
▶ 50 V CAT III

APPLICATIONS

▶ Process control monitoring and troubleshooting
▶ Profile temperature, pressure, flow and other parameters directly
▶ General-purpose DC current monitoring
▶ And many more

SPECIFICATIONS

MODEL	L322
ELECTRICAL SPECIFICATIONS	
Channels	2
Input connection	One 4 position removable screw-type terminal block
Measurement range	-20 mADC to +20 mADC
Resolution	0.01 mA
Accuracy	0.25% of Reading + 0.05 mA
Sample rate	Maximum of 8 samples taken at storage interval
Storage rate	Programmable from 125 ms to 1 day
Storage modes	Start/Stop, FIFO and Extended Recording Mode (XRM™)
Recording length	15 minutes to 8 weeks, programmable using DataView®
Memory	240,000 measurements (512 kB). The recorded data is stored in non-volatile memory & retained even if the battery is low or removed.
Communication	USB 2.0 optically isolated
Power source	2 x 1.5 V AA-cell Alkaline batteries
Battery life	100 hours to >45 days (dependent on storage rate/recording length)
MECHANICAL SPECIFICATIONS	
Dimensions	136 x 70 x 32 mm (5.45 x 2.75 x 1.28")
Weight (with battery)	181 g (6.4 oz)
Casing	UL94-V0
Vibration	IEC 68-2-6 (1.5 mm, 10 to 55 Hz)
Shock	IEC 68-2-27 (30 G)
Drop	IEC 68-2-32 (1 m)
ENVIRONMENTAL SPECIFICATIONS	
Operating temperature	-10 to +50 °C (14 to 122 °F)
Storage temperature	-20 to +60 °C (-4 to +140 °F)

L322 recording loop current in a flow control panel.

Simple Logger® II
DC Voltage Model L432

Model L432

Model L432 includes type A to 5-pin mini-B USB 2M, DataView® CD, two 1.5 V AA-cell alkaline batteries and user manual.

FEATURES

- ► 2 independent input channels
- ► User-selectable ranges of ± 100 mV; ± 1 V and ± 10 V$_{DC}$ per channel
- ► Programmable storage rates from 8 per second to 1 per day
- ► 3 user-selectable storage modes
- ► Stores up to 240,000 measurements in non-volatile memory
- ► Powered by standard alkaline batteries
- ► Lightweight, compact, fits anywhere
- ► 5 LED indicators display logger status quickly and clearly
- ► Includes FREE DataView® software for data storage, real-time display, analysis and report generation
- ► USB cable included
- ► 50 V CAT III

APPLICATIONS

- ► Circuit design troubleshooting
- ► Sensor monitoring
- ► Battery testing
- ► Power supply profiling

SPECIFICATIONS

MODEL	L432
ELECTRICAL SPECIFICATIONS	
Channels	2
Input connection	One 4-position removable screw-type terminal block
Measurement level (3 ranges/channel)	Range 1: -100 mV to +100 mV$_{DC}$ Range 2: -1 V to +1 V$_{DC}$ Range 3: -10 V to +10 V$_{DC}$
Resolution	Range 1: 0.1 mV Range 2: 1 mV Range 3: 10 mV
Accuracy (50/60 Hz)	Range 1: ±(0.5% of Reading + 1 mV) Range 2: ±(0.5% of Reading + 1 mV) Range 3: ±(0.5% of Reading + 10 mV)
Sample rate	Maximum of 8 samples taken at storage interval
Storage rate	Programmable from 125 ms to 1 day
Storage modes	Start/Stop, FIFO and Extended Recording Mode (XRM™)
Recording length	15 minutes to 8 weeks, programmable using DataView®
Memory	240,000 measurements (512 kB). The recorded data is stored in non-volatile memory & retained even if the battery is low or removed.
Communication	USB 2.0 optically isolated
Power source	2 x 1.5 V AA-cell alkaline batteries
Battery life	100 hours to >45 days (depending on storage rate/recording length)
BATTERY LIFE	
Dimensions	136 x 70 x 32 mm (5.45 x 2.75 x 1.28")
Weight (with battery)	181 g (6.4 oz)
Casing	UL94-V0
Vibration	IEC 68-2-6 (1.5 mm, 10 to 55 Hz)
Shock	IEC 68-2-27 (30 G)
Drop	IEC 68-2-32 (1 m)
ENVIRONMENTAL SPECIFICATIONS	
Operating temperature	-10 to +50 °C (14 to 122 °F)
Storage temperature	-20 to +60 °C (-4 to +140 °F)

L432 recording two DC voltage supplies.

Simple Logger® II
Model L642: Thermocouple

Model L642

Model L642 includes type A to 5-pin mini-B USB 2M, DataView® CD, two 1.5 AA-cell Alkaline batteries and user manual. Thermocouples sold separately.

FEATURES

▶ 2 independent input channels
▶ User selectable thermocouple types J, K, T, N, E, R, S
▶ Programmable storage rates from 1 per 5 seconds to 1 per day
▶ 3 user selectable storage modes
▶ Stores up to 240000 measurements in non-volatile memory
▶ Powered by standard Alkaline batteries
▶ Lightweight, compact, fits anywhere
▶ 5 LED indicators quickly and clearly display logger status
▶ Includes FREE DataView® software for data storage, real-time display, analysis and report generation
▶ USB cable included
▶ 50 V CAT III

APPLICATIONS

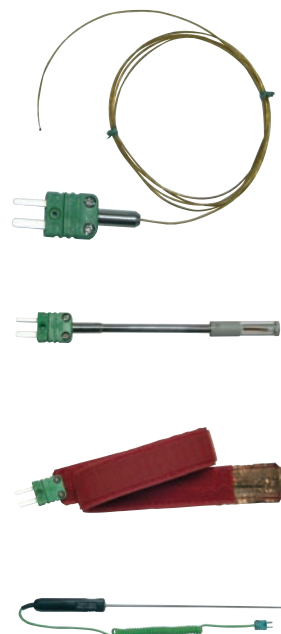▶ Monitoring of heating and air-conditioning systems
▶ Process monitoring
▶ Monitoring of cold chain
▶ And many more

Wide choice of thermocouple sensors (optional)
Please contact us for recommendations on thermocouples

CARACTERISTIQUES

MODEL	L642
ELECTRICAL	
Channels	2
Input connection	2 miniature thermocouple connectors
Measurement range:	°C (°F)
J	de -210 à +1,200 (-346 à +2,192)
K	de -200 à +1,372 (-328 à +2,501)
T	de -250 à +400 (-418 à +752)
N	de -200 à +1,300 (-328 à +2,372)
E	de -150 à +950 (-238 à +1,742)
R	de 0 à 1,767 (32 à 3,212)
S	de 0 à 1,767 (32 à 3,212)
Resolution	0.1 °C/F < 1,000 °C/F; 1 ° ≥ 1,000 °C/F
Accuracy (50/60 Hz)	0.1 % to 0,2 % + 0.6 ° to 1 °, depending on the range and T/C type
Sample rate	8 samples taken at storage interval
Storage rate	Programmable from 5 sec to 1 day
Storage modes	Start/Stop, FIFO and Extended Recording Mode (XRM™)
Recording length	15 minutes to 8 weeks, programmable using DataView®
Memory	240,000 measurements (512 kB). The recorded data is stored in non-volatile memory & retained even if the battery is low or removed
Communication	USB 2.0 optically isolated
Power source	2 x 1.5 V AA-cell Alkaline batteries
Battery Life	100 h to >45 days (dependent on storage rate/recording length)
MECHANICAL	
Dimensions	125 x 70 x 32 mm (4.94 x 2.75 x 1.28")
Weight (with battery)	200 g (7 oz)
Case	UL94-V0
Vibration	IEC 60068-2-6 (1.5 mm, 10 to 55 Hz)
Shock	IEC 60068-2-27 (30 G)
Drop	IEC 60068-2-32 (1 m)
ENVIRONNEMENTAL	
Operating Temperature	de -10 à +50 ° C (14 to 122 °F)
Storage Temperature	de −20 à +60 °C (-4 to +140 °F)

INPUTS & RECORDING

INPUT CONNECTIONS

Simple Logger® II L101
Isolated BNC connector
accepts current probes with
male BNC plugs.

Simple Logger® II L102
Dual isolated BNC connectors
accepts current probes
with male BNC plugs.

Simple Logger® II L111
Recessed 4 mm banana jacks
& fused input.

Simple Logger® II L261
Recessed safety 4 mm banana jacks.

Simple Logger® II L322 & L432
4-pin removable terminal strip.

Simple Logger® II L562
Isolated BNC for current probe.
Recessed 4 mm banana jacks
for voltage accepts current probes
with male BNC plugs.

SL II L642
Double miniature thermocouple
connectors

All Simple Logger® II Models
Mini USB 5-pin connector

Type A to 5-pin mini-B USB 2M.

RECORDING MODES

The Simple Logger® II data logger family offers a choice of three modes for recording data.

The first, and most common in the industry, is called Start/Stop. In this mode the operator selects a storage rate from the 21 predefined values from as fast as 8 per second (1 every 125 ms) to 1 every day. Then a start and stop time is selected. Data is recorded at this rate until the memory is filled or the end recording time/date is reached. The logger then stops recording and goes into a standby mode retaining the recorded date to be downloaded.

The second mode is a variant of Start/Stop called First In First Out (FIFO). Here the operator makes the data storage selection and recording length selection as described above but if the memory fills before the end date and time occurs, the logger will discard the oldest stored data point and add a new one. This process will continue until the end recording date and time is reached.

The third storage mode is called Extended Time Recording (XRM™). This unique recording mechanism provides for continuous recording over a longer period of time without the need for operator selection or adjustments to the set-up. In this mode the operator selects a starting storage rate from the 21 predefined values from as fast as 8 per second (1 every 125 ms) to 1 every day. Recording length is also programmed. The logger will store data at the rate selected until the memory is filled. When the memory is full, the logger will discard every other stored sample beyond the first one, freeing up half the memory for continuous recording. New samples will be stored at half the previous storage rate so that they match the interval for the remaining stored data. This process will be repeated each time the memory fills until the operator stops the recording manually, the end recording date/time is reached or the battery runs down.

ACCESSORIES

Current probes compatible with the Simple Logger® II series

• Current probes with VOLTAGE output

Model E3N

Model MN60

Model PAC12

Model PAC22

Model C160

Model D38N

• Current probes with CURRENT output

Model MN 11

Model C 103

	Model	Measurement Range AC	Output Signal Voltage	Phase Shift**	Maximum Conductor Size Ø Cable	Maximum Conductor Size Busbar	Output Connection	Compatibility
VOLTAGE OUTPUT	E3N	100 mA to 10 A 1 to 100 A	100 mV/A_AC 10 mV/A_AC	< 1.5 °	11.8 mm (0.46")	–	Lead w/BNC	L101 L102 L562
	MN 60	0.1 to 24 A 0.5 to 240 A	100 mV/A_AC 10 mV/A_AC	< 2.5 °	19.8 mm (0.78")	–	Lead w/BNC	
	PAC 12	0.2 to 40 A 0.5 to 400 A	10 mV/A_AC 1 mV/A_AC	< 1.5 °	One cable: 30 mm (1.18") Two cable: 24 mm (0.95")	Two 31.5 x 10 mm (1,2 x 0,4")	Lead w/BNC	
	PAC 22	0.2 to 100 A 0.5 to 1 000 A	10 mV/A_AC 1 mV/A_AC	< 1.5 °	One cable: 39 mm (1.5") Two cable: 25 mm (0.98")	One 50 x 12 mm (1.96 x 0.49") Two 50 x 5 mm (1.96 x 0.19")	Lead w/BNC	
	C160	0.1 to 10 A 0.1 to 100 A 1 to 1 000 A	100 mV/A_AC 10 mV/A_AC 1 mV/A_AC	< 1 °	52 mm (2.05")	50 x 5 mm (1.96 x 0.19")	Lead w/BNC	
	D38N	1 to 30 A 1 to 300 A 1 to 3 000 A	10 mV/A_AC 1 mV/A_AC 0,1 mV/A_AC	< 1 °	64 mm (2.52") 64 x 100 mm (2.52 x 3.94")	50 x 135 mm (1.97 x 5.31")	Lead w/BNC	
CURRENT OUTPUT	MN11	0.5 to 240 A	1 mA/A_AC	< 2.5 °	19.8 mm (0.78")	–	Wire cable with reinforced or double insulation, length 1.5 m, terminated by 2 elbowed male banana safety plugs, Ø 4 mm	L111
	C103	0.1 to 1 200 A	1 mA/A_AC	< 0.5 °	52 mm (2.05")	50 x 5 mm (1.96 x 0.19")	Wire cable with reinforced or double insulation, length 1.5 m, terminated by 2 elbowed male banana safety plugs, Ø 4 mm	

*For AC measurements   **Phase shift indicated at maximum rating

REFERENCES

CE c(UL)us ▢

LOGGERS	REF. TO ORDER
Simple Logger® II model CL601 (single channel, TRMS clamp, 600 A$_{AC}$)	P01157010
Simple Logger® II model L101 (single channel, TRMS, 0 to 1 V$_{AC}$)	P01157020
Simple Logger® II model L102 (2 channels, TRMS, 0 to 1 V$_{AC}$)	P01157030
Simple Logger® II model L111 (single channel, TRMS, 0 to 1 A$_{AC}$)	P01157080
Simple Logger® II model L261 (single channel, TRMS, 600 V$_{AC/DC}$)	P01157040
Simple Logger® II model L562 (TRMS voltage and current)	P01157060
Simple Logger® II model L322 (current from 4 to 20 mA$_{DC}$)	P01157090
Simple Logger® II model L432 (2 channels, DC voltages ± 100 mV/1 V/10 V$_{DC}$)	P01157070
Simple Logger II model L642 (2 channels - temperature)	P01157050

CURRENT PROBES	REF. TO ORDER
AC/DC Current Probe Model E3N (10 A - 100 mV/A, 100 A - 10 mV/A, BNC)	P01120043A
AC Current Probe Model MN 60 (24 A - 100 mV/A, 240 A - 10 mV/A, BNC)	P01120409
AC Current Probe Model PAC 12 (60 A - 10 mV/A, 600 A - 1 mV/A, BNC)	P01120072
AC Current Probe Model PAC22 (150 A – 10 mV/A, 1,500 – 1 mV/A, BNC)	P01120073
AC Current Probe Model C160 (10 A – 100 mVAC/AAC, 100 A – 10 mV$_{AC/AAC}$, 1,000 A – 1 mV$_{AC/AAC}$, BNC)	P01120308
AC Current Probe Model D38N (30 A – 10 mVAC/AAC, 300 A – 1 mV$_{AC/AAC}$, 3,000 A - 0.1 mV$_{AC/AAC}$, BNC)	P01120057A
AC Current Probe Model MN11 (240 A - 1 mAAC/AAC)	P01120404
AC Current Probe Model C103 (1000 A - 1 mAAC/AAC)	P01120303

ACCESSORIES	REF. TO ORDER
Standard PVC leads - straight male 4 mm connectors - 15 A / 1.5 m - 1 red/1 black	P01295288Z
32 A crocodile clips - 1 red/1 black	P01102052Z
Shoulder bag with strap	P06239502
USB lead, 2 m, type A to mini-B, 5 pins	contact us
Mains adapter for E3N clamp	P01101965
Banana/female BNC adapter	P01101846
SK6 Flexible K thermocouple sensor	P03652906

Shoulder bag with strap.

Standard PVC leads 600 V CAT IV / 1,000 V CAT III.

Your distributor

Crocodile clips 600 V CAT IV / 1,000 V CAT III.

Banana (Female) - BNC (Male) adapter.

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