

- * MEASURES
- * DISPLAYS
- * AND DATA LOGS...
- * ... CURRENT MEASUREMENTS UP TO 500 AMPS A.C.



GENERAL DESCRIPTION

This compact, portable AC Current Logger, Model LIAC, accepts a 0 to 500 mVDC output, proportional to 0 to 500 amps AC, from a clamp-on current probe. This probe allows the user to clamp on to single cables up to 1.18 in. dia., 2.5 x 0.2 in. buss bars, or two 0.98 dia. dual cables. The measured current is read on a LCD display. This signal is also recorded by the internal data logger, which can record up to 8192 data points.

To record data, push the button on the side of the unit. The unit will now display the current being sensed by the current probe. To begin logging data, press the button on the side of the internal logger - an LED will produce double flashes. Once data is recorded, press the button a second time to put the logger into the standby mode. The LED will produce single flashes. In this mode, the logger

does not record but it retains data to be downloaded into the computer. Holding the button down for several seconds turns the logger off (sleep mode) and the LED stops flashing. The logger should not be turned off until after the data is stored in the computer.

To download data to the computer, the RS232 cable is plugged into the logger (Smart Chart II) jack labeled 'PC'. From the Smart Chart II software open the function window and select volts and then from the main menu select download.

The Model LIAC is powered from the internal 9 volt battery or from an external 9 volt power pack which plugs into the jack above the on/off button. The Smart Chart II has its own internal battery.

SPECIFICATIONS MODEL LIAC

AC CURRENT PROBE

Current range: 4 to 500 A AC
Output: 1 mV DC/A AC (5 ft. leads with banana plugs)
Accuracy: $\pm 3.5\%$ reading ± 0.5 A (with noninductive load at 10 megaohms at 60 Hz)
Working Voltage: 660 Volt Max.
Frequency Range: 48 to 1000 Hz
Maximum Conductor Size: 1.18" (30 mm)
Maximum Bus Bar Size: 2.48 x 0.20" (63 x 5 mm)
Transformation Ratio: 1000:1
Load Impedance: 1M Ohm min. (add 1% to accuracy)
Operating Temperature: 14 to 122 °F (-10 to 50 °C)
Storage Temperature: -40 to 167 °F (-40 to 75 °C)
Dimensions: 2.60 x 7.68 x 1/34" (66 x 195 x 34 mm)
Weight: 12.35 oz. (350 g)
Dielectric Test: 4000 V RMS
Safety Standard: IEC 348
***Probe Warranty:** 1 Year

DATA LOGGER

VOLTAGE: Resolution: 0.4% of scale
Accuracy: $\pm 1\%$ of scale ± 30 mV

MEMORY: 8K EEPROM

SAMPLING INTERVAL:

Initially 0.879 second, doubles repeatedly as recording progresses

BATTERY: 3 V CR2032 lithium coin cell, provides one year of continuous recording

SIZE, WEIGHT: 2-1/4 " x 1-1/2 " x 13/16 ", 1 oz.

HARDWARE REQUIREMENTS:

IBM PC or compatible computer running MS Windows with an unused serial port and 0.5 megabytes of free hard-disk space.

DATA LOGGER OPERATIONS

Logger operation is controlled by a button on its label. The mode of operation is indicated by a light to the left of the button.

There are three modes of operation: RECORD, STANDBY AND SLEEP.

RECORD is entered from SLEEP by a press of the button; the light makes double blinks to indicate that the logger is recording.

STANDBY is entered from RECORD by a press of the button; it is indicated by single blinks of the light. In the STANDBY mode the logger does not record; it keeps time and retains data for later downloading to the computer.

SLEEP is entered from RECORD or STANDBY by along (two second or more) press of the button. In the SLEEP mode, the logger is inactive and its light does not blink.

Data can be downloaded from the logger only when it is in the RECORD or STANDBY modes. (Refer to the HELP file for instructions on recovering data in the event that the logger is inadvertently put to sleep).

BULLETIN 990051-0001 4/02

INDICATOR

PERFORMANCE

- Accuracy: $\pm 0.1\%$ of span counts, ± 1 count
- Temperature effect (zero): ± 0.1 count/ $^{\circ}$ C
- Temperature effect (span): $\pm 0.01\%$ of span count/ $^{\circ}$ C
- Operating temperature: -30 to $+85$ $^{\circ}$ C
- Sample rate: 2 per second

DISPLAY

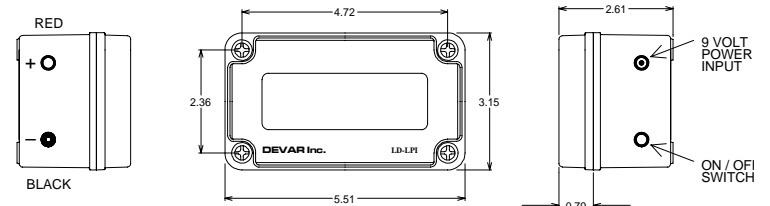
- Type: 3-1/2 digit LCD, with dummy zero, 1" high
- Range: -1999 to 1999 counts (-19990 to 19990 display)
- Decimal point: four positions or absent, switch selectable
- Polarity sign: negative polarity indication or none, switch selectable

CALIBRATION

- Span range: 0 to 3998 counts, 3 ranges switch selectable, fine adjustment on 15 turn trim pot, noninteractive with zero pot.
- Resolution: better than 1 count

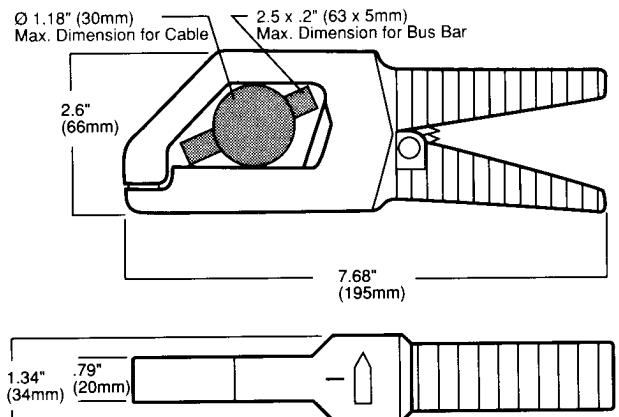
ENCLOSURE

- Material: polycarbonate
- Ratings: NEMA 4X, flammability UL 94-5V
- Weight: 1 lb



Ø 1.18" (30mm)
Max. Dimension for Cable

OR



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