



## Features

- Allows for packaging of ModuLogger or ModuLogger "Mini" Products
- Integrated 4 to 36 input/output Datalogger
- User specified options for complete and portable total solutions
- Portable, rugged, weather proof and completely self-contained
- Modular design for easy I/O and option field expansion
- Full differential instrumentation inputs (optional isolated inputs)
- Loggers utilizes revolutionary software for easy graphic programming, communications, data analysis
- Low Power design for battery, photovoltaic or line powered operation
- System Options:
  - Sensor and 4-20mA loop power supply
  - Rechargeable batteries
  - PV battery charger
  - Cell phone, Ethernet, and RF communication options

## The Authority in Unrestricted Data Logging



### ML-300 System Integration Data Logger

The ML-300 consists of a standard ModuLogger™ or ModuLogger "Mini" mounted in a rugged NEMA 4x enclosure. Optional balance of system components can be selected and ordered to configure a total datalogging solution. Flexible packaging lends the ML-300 to End Users and System Integrators that require room to grow and adapt their datalogging and alarming platform. "Off the shelf" options can be integrated into the ML-300 by Logic Beach providing a simple solution to difficult integration requirements. Wiring access holes with liquid tight gland fittings provide easy access to a large wiring compartment for all I/O connections, sensor power supplies, batteries and additional system components. Wall mounting tabs and full installation and operation instructions are included.

**Available Options:** 1) Rechargeable batteries 2) Photovoltaic battery charge controller 3) Sensor excitation power supplies 4) Communications: Cell Phone, Ethernet, RF spread spectrum.

#### Available Dataloggers:

Choose between the expandable ModuLogger or the 4 channel ModuLogger "Mini". Common features of these dataloggers include compact reliable design, easy to program via "drag and drop" HyperWare™ software, built-in high-speed counter, sample rate to 150 per second, line or battery power plus four alarms, two relay closures, TTL out and a 5VDC output. Expand either logger with a battery pack, modem option, extended internal memory or removable PCMCIA card.

A display option is also available for direct real-time readings and system information. The ModuLogger system is mounted into the enclosure on a slide-out rack to facilitate access to the logger wiring terminals and PCMCIA memory card (if specified). Refer to individual data sheets for specifics on each product.



## Data Loggers

**ModuLogger:** Start with 4 analog inputs and add up to 32 more I/O channels. The ModuLogger includes 4 analog inputs and 4 software controllable outputs. If required choose up to four additional interface modules, from analog (thermocouple), isolated analog, digital, resistance (RTD and thermistor), event/frequency/counter as well as 2x16 character display, modem, extended memory, PCMCIA memory, and integral batteries to design a data logger for your application. All interface modules are field upgradeable with easy plug-n-play stack design. The modular design and product configuration allows for lowest cost solution. See ModuLogger data sheet for complete specifications.

**ModuLogger"Mini":** This design provides a more affordable logger for those in need of 4 inputs or less. Available 'Mini' options include 2x16 character display, modem, extended memory, PCMCIA memory, and integral batteries and sensor power supply module. I/O is not expandable. The 'Mini' includes 4 analog inputs, 1 GPD1 input, 4 outputs, HyperWare software, cables, 120VAC/12VDC wall adapter, and manual to begin logging immediately. See ModuLogger "Mini" data sheet for complete specifications.

**HyperWare Software:** The Logic Beach HyperWare™ Windows™ based software is used for configuration of the logger, data downloads, real-time trending of data as well as data display and data file conversion. This extremely easy-to-use software is very powerful. With "drop and drag" icon programming Logic Beach data-loggers can be programmed to perform conditional logging, units conversion, mathematical functions, scheduled calls to pagers and much more.

## ML-300 Components

**Rechargeable Battery Option:** For extended datalogging sessions, cell phone power or sensor excitation power a rechargeable battery option is available. The sealed batteries are mounted under the hinged front aluminum panel which contains terminal strips for wiring of sensors and other system components.

**SRB-1:** Battery, sealed gel-cell. Single 12Vdc, 12Ah (25°C - 20 hour discharge rate). Fused. When ordering specify one for 12V@12Ah or two for 12V@24Ah (parallel) or 24V@12Ah (series).

### Battery charging options:

**CHGR-1:** Door mounted 6A charge controller for charging from Photovoltaic panels or a wind generator.

**CHGR-12500A:** 120VAC charger. 500mA rated for 24 hour single cell charge time.

### Sensor Power Supplies:

**PSM-2:** For applications requiring sensor or loop power/excitation greater than the ModuLogger's internal 5Vdc source, the PSM-2 can provide 5, 10, 15, or 24Vdc excitation voltages stepped up from the 12Vdc rechargeable batteries provided in the "SRB-1" option. See PSM-2 data sheet for complete specifications.

### Communications Options:

**Cell Phone Options:** Optional 3 watt analog cellular telephone interface allows turn-key wireless communications. The cell phone equipped ML-300 system is ready to receive incoming calls from a PC as well as provide call-out capability. See cell phone data sheet for full technical and ordering details(antennas and mounting hardware).

**CP-1:** Cell phone option. Integrated analog cell phone provides communication link when phone lines are not available or easily accessed. Typically used when utility power is available.

**CP-1-PM:** Cell phone with power management option for longest possible battery life. Phone remains off until paged to wake up for communication session. Power source typically 2 SRB-1s with battery charger depending upon communication frequency and duration and length of data logger deployment. Consult factory for power estimates and battery sizing assistance.

**Ethernet:** Ethernet to serial adapter box for communications using standard Ethernet drivers and hubs. Select from different speeds and one to 16 ports. See Data Sheet for complete specifications.

**RF:** For distances up to 20 miles (max. distance under ideal conditions) wireless spread spectrum systems are available. Consult factory.

## ML-300 Mechanical Specifications:

NEMA 3, 4X, and 12 equivalent rated enclosure. Hinged door with lockable latches.

**DIMENSIONS:** 12"W x 18"H x 7.0"D

**WEIGHT:** 12 to 40 pounds depending on configuration

Contact Logic Beach for configuration assistance.