Remote Data Logging ı Alarms Event Recorders ı Portable Monitoring
'Mini' ı ModuLogger™ ı Crakker™ Control System Testing ı HAP™ Auto Polling
HyperWare™ ı ModuLogger™ ı HyperLogger™ ı Remote Data Logging
Alarms ı Event Recorders ı Portable Monitoring ı 'Mini' ı HyperWare™
HyperWare™ ı ModuLogger™ ı HyperLogger™ ı Remote Data Logging
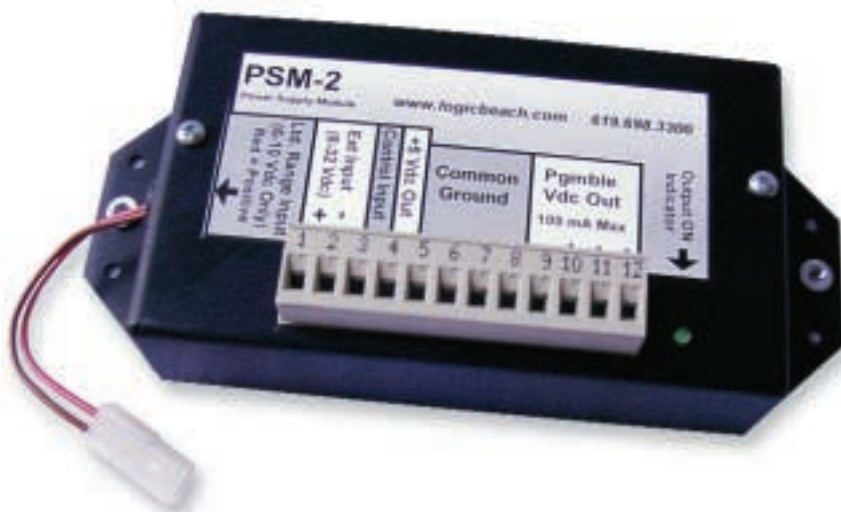
LOGIC BEACH

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PSM-2 Sensor Power Supply Module

Features

- Field sensor power… current loops and/or voltage excitation source

- Independent Power supply for sensor and loop excitation and/or instrument power

- Powered from system batteries or external power

- Installs into ModuLogger,™ Mini and HyperLogger™ data logging systems

- Control input for ON/OFF output control via software

- Rugged design to take abusive field conditions

- Field programmable output voltages..5, 10, 15, and 24Vdc (custom voltages are available)

- Low-Power design for optimum battery life

- Four models available

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PSM-2 Sensor Power Supply Module

The PSM-2 Power Supply Module is a DC regulated power supply designed to provide excitation power for sensors used with the Logic Beach ModuLogger, Mini and HyperLogger portable data loggers.* The PSM can supply 100mA of current, sufficient to power up to five 4-20mA loops. Alternatively, it can be used as a voltage source for sensor excitation for a variety of sensor types. A 5Vdc output is standard and one additional output is available which can be easily programmed in the field for 10, 15 or 24Vdc output (custom output voltages also available). PSM power supplies provide a compact low cost solution to meet field and plant power requirements.

Four Packaging Options

To provide the best solution for your application, four package versions of the PSM are available to use with the HyperLogger, ModuLogger and Mini portable data logging systems. The unit is offered as a stand-alone module or incorporated into loggers for a convenient, software controllable sensor power supply.

The PSM draws its power from the standard data logger D-cells or an external supply. For connection to the logger D-cells, a pigtail with mating connector projects from the PSM. This pigtail connects to the mating connector provided on the logger battery pack. Alternatively, external power can be supplied. A convenient terminal strip makes sensor and input power connections easily completed.

The PSM outputs are cycled ON/OFF by a software controlled low-level input from the data logger. This unique system provides power only as required for sampling, minimizing power consumption and maximizing battery life.

An LED indicates when the outputs are ON providing visual feedback of operation during installation.

* See individual data sheets for detailed specifications on the ModuLogger, HyperLogger, and Mini.

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PSM-2 Sensor Power Supply Module

PSM-2

PSM-2: (Figure 1) A metal encased stand-alone module typically used for door mounted installation into the HyperLogger system. The module is equipped with mounting tabs containing threaded inserts for surface mounting. A removable terminal strip provides easy connect/disconnect of the control, external power, and output voltages.

MLPSM-2: A PSM mounted into the standard ModuLogger frame for installation into the ModuLogger or ModuLogger Mini data logging system stack. A removable terminal strip provides for easy connect/disconnect of the control, external power, and output voltages. Specify this model when sensor power is desired, the logger power is provided by an AC adapter, and the ML-BATT (six D-cell battery pack) module is not needed.
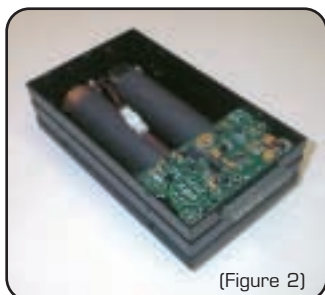
(Figure 2)

MLBATT-PSM2: (Figure 2) A PSM is incorporated into the standard ModuLogger/ Mini ML-BATT module (six D-cell plug-on battery pack). A terminal strip provides for easy connection/disconnection of the control, external power, and output voltages.

PSM2-PP: A stand-alone portable power supply including 6 D-Cells and the PSM in a small (4.8 x 8.8 x 2.9) package. This supply can be used with other data acquisition, control, and annunciator equipment providing power for sensor and loop excitation as well as instrument power.

HyperWare™ Implementation

The PSM outputs can be cycled ON/OFF with a 5Vdc control signal such as one of the Digital Outputs provided standard in the ModuLogger, Mini and HyperLogger data logging systems and other instruments.
Sensor excitation is easily programmed into the data logger via the existing HyperNet™ graphic programming system implemented within the HyperWare™ software.

HyperWare™ is the standard Windows based software application used in conjunction with Logic Beach Inc. portable and remote site data logging instruments. HyperWare provides serial communication with the loggers, graphic programming of the logger, real-time trending, data plotting and data post-processing (see separate data sheet for details on HyperWare™).
The Warm-Up icon within HyperNet allows a User to specify PSM turn-on time prior to the sampling of the sensor output.

Specifications

Terminal Strip: 12 position strip for connection of external power input, control signal input, and the programmable and 5 Vdc outputs and ground.

Pigtail Connection: A pair of pigtails is provided for direct interface to the HyperLogger, ModuLogger and Mini battery pack. In a ModuLogger or Mini implementation, the PSM is wired in series between the battery pack (ML-BATT) and the CPU module using the two provided pigtails and mating polarized connectors.

Output Indication: Output "ON" LED indicator

External Power Input: 8-32Vdc input

Control Signal input: Field Programmable for
     Hi Input = ON or Lo Input = ON
     LO = 0 to 0.5Vdc; HI = 3 to 20Vdc
     Control current = 400uA at 5 Vdc (On)

Output #1: Programmable Vdc* Output:
     Ranges: 10, 15, or 24Vdc (program with PCB jumpers)
     Accuracy: ±300 mV (special trim available)
     Current: 100mA** (short circuit protected)

Output #2: Fixed 5 Vdc Output:
     Accuracy: ±150mV
     Current: 40mA (short circuit protected)

Parasitic Current (Outputs Off): 300uA typical

Circuit Protection: Continuous short circuit protection on outputs. Reverse polarity protection on inputs

Operating Temperature Range: -40°C to 70°C

*   Tighter tolerance and custom voltage outputs from 7 to 25Vdc available. Contact Logic Beach for details.
**   Current output capability varies as a function of programmed output voltages due to thermal concerns.

Contact Logic Beach for configuration assistance.

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