

µSmart Series

Pluviometer/Data Logger

PL(X) version

The PL(X) is the new Monitor Sensors Data Logger designed for use in Pluviometers, event counting type applications or applications where an additional sensor is required to be logged in conjunction with the primary device. The PL(X) phases out the older SL-32 series of data logger. Using “State of the Art” electronics developed from the SL1 µSmart series Data Loggers, the PL series offers a simple but powerful operating system that is extremely user-friendly and suitable for both the general and scientific user. The Data Logger is available in two versions with the PL1 suitable for single counter input applications whilst the PL2 makes provision for two additional channels of information.

The PL1 Data Logger is designed to operate with any counter or event type input such as a Rain Gauge, Proximity Switch, Contact closure or Digital input. When supplied with the additional channels activated, the PL2 accepts the µSmart series of sensors and offers “Plug and Play” capability as is found in the SL series of Loggers. The new loggers offer a minimum logging period of 1 second in standard form, but can count and record multiple tips during the one-second period. The Logger is provided with embedded software that will operate with **any** PC with an on-board Communications programme, Teletype or Dumb Terminal. The logger has increased memory capacity and low internal current draw for extended logging periods.

To activate the “Plug and Play” feature, simply attach the new sensors to the logger and then instruct the unit to search for sensors fitted. The logger then automatically interrogates the data bus looking for any attached sensors. As each new sensor is found, the sensor’s profile is down loaded into Logger memory and this is then used as the basis for a logging regime. In the absence of any further input by the operator, the Data Logger will set up a Meteorological Bureau Standard logging period that is suitable for each particular sensor. Should the operator need to change the logging parameters, the embedded software programme offers a full range of pre-programmed and user defined options. Interface units are available to convert other Manufacturer’s sensors for use with the PL2. Using the SI1 Data converter, any instrument can be made compatible with the Logger and at the same time upgrade the sensor or instrument with all the capability of the µSmart range.

The new PL series of Data Loggers offer a host of features such as:

- 512 K of Flash memory as standard. Additional memory options up to 4Mbyte are available
- Real time clock.
- Counter/event input
- Two µSmart input channels. (PL2)
- Transparent mode via RS232 communications. Allows direct access to each sensor.
- Multiple Control/Alarm outputs.
- RS-232 output.
- “Plug and Play” capability.
- Removable memory module for use with a docking station.
- Battery saving programming features.
- Available programmed in most languages

Specification.

Power:	8-40 volts unregulated DC.
Processor Speed:	up to 33Mhz.
Environmental:	-30 ° C to +70 ° C. (operational and storage)
Memory:	Flash Ram. Options 512K to 4 Mbyte. Circular buffer. Automatically overwrites oldest entries for continuous data storage.
Data Points:	120,000 per 512K with full time date stamp per entry
Current Draw:	Communications Mode: 13 milliamps Logging Mode: <300 microamps. Automatic port shutdown after 5 minutes of inactivity.
Inputs:	1 Counter and up to 2 μ Smart sensors.
Output:	RS232
Control output:	1 control output. Additional outputs can be custom provided.
Input type:	Serial data. Counter
Sampling rate:	Minimum period 1 second Maximum period 24 hours Each sensor's sampling rate can be set individually.
Resolution:	Monibus 16 bit (1 part in 65,500)
RS 232 specifications:	600 to 115200 baud 8 data bits 0 parity 1 stop bit Xon/Xoff
Embedded software:	ASCII output. The logger will communicate with any type of PC that uses a communications programme. Menus: Pre-programmed, single keystroke selectable menus for parameter changes. Down-loading: One touch or custom down-loading available.

**Esis Pty Ltd, PO Box 450, Pennant Hills, NSW 1715 AUSTRALIA
ph 02 9481 7420 fax 02 9481 7267**