

Compact Precision Data Loggers

Spectrum Loggers

Series 2000



Precision Humidity

- completely self-contained
- on-board RH and temperature sensors
- +/- 2% RH accuracy
- 0.05% RH measurement precision
- 0 to 95% RH range

Series 1000



Precision Temperature

- 0.05°C. measurement precision
- +/- 0.15° C. accuracy
- completely self-contained
- on-board thermistor temperature sensor
- ambient and remote thermistor probe models

Series 1700



Thermocouple

- compatible with type K, J, T, E, R and S thermocouple inputs
- automatic cold-junction compensation
- logs temperatures from -240° C. to 1,760° C.
- single and multi-channel versions

Series 4000



Process Voltage

- 1, 5 and 10 Vdc inputs
- measurement precision to 250 microvolts
- 0.15% full scale accuracy
- single and multi-channel versions
- scales easily into user-defined engineering units

Series 4000



Current Loop

- 4-20mA inputs
- 5.5 microamp precision
- XPS loop excitation control for remote battery applications
- single and multi-channel versions
- scales easily into user-defined engineering units

OEM Versions

- customized board-only versions for easy integration with other measurement products
- software API allows direct logger interface from proprietary programs



Spectrum Loggers are compact and efficient alternatives to chart recorders and central data acquisition systems. More powerful than conventional battery-operated data loggers, they help you acquire the information you need, without compromising performance or dependability.

Each unit combines small size, industry-leading accuracy and precision, long battery life, easy setup, and a convenient PC interface. Together with Spectrum Software, they allow you to verify the performance of your equipment and systems accurately and reliably.

Optimized to record specific measurement variables, models are available for humidity, temperature, thermocouples, current loop and DC voltage.

Applications

- Process verification/validation
- ISO 9000 quality compliance
- Environmental testing
- Product testing
- Problem analysis
- Research & development

Common Specifications

- Operational range: -40 to 85°C. (-40 to 185°F) & 0 to 95% RH
Size: 2.8 x 2.1 x 0.7" (71 x 53 x 18mm); 60 grams
Enclosure: Injection-molded beige ABS plastic
Power source: Internal lithium battery with life of 10 years at 1 min. sampling rate
A/D conversion: 12-bits (one part in 4,096)
Memory: Non-volatile 32K x 8 EEROM; 105K optional
Data samples: 21,500 12-bit samples at user-selectable rates from 10 sec. to once per day; 70,000 readings with optional 105K memory
Memory protection: Data retention > 20 year backup without power
Memory modes: User-selectable: Wrap when full; or Stop when memory full
Clock accuracy: +/- 1 min. per month at 0 to 50° C.
PC Interface: Serial port; half duplex; 19,200 baud; Contact factory for optional wireless products
Electromagnetic interference: Meets FCC Part 15 for digital devices; meets CE requirements for radiated emissions, ESD, & radiated susceptibility.
Data Inputs: Refer to individual model specifications.

PC Software

Designed for use with Spectrum Software. Compatible with Windows 95, 98 and NT 4.0.

