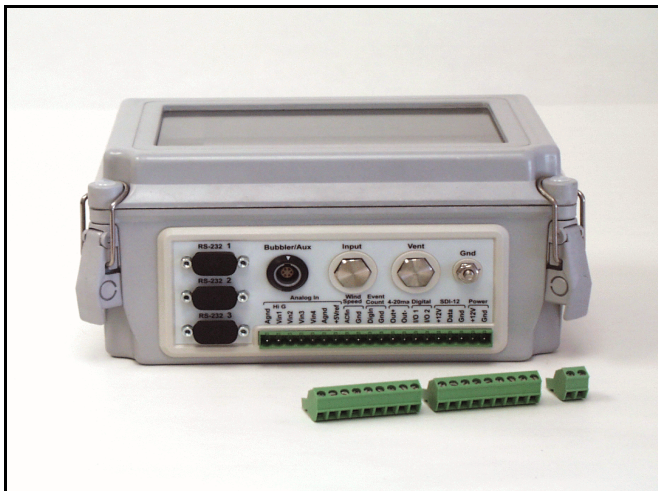


The **WATERLOG[®]** Model H-500XL™ is a data logger designed for remote operation. This instrument can be interfaced with:

- Other Data Loggers
- GOES Transmitter
- Remote Displays
- Telemetry Systems
- Modems
- Variety of Sensors



KEY FEATURES

- Ideal for small Hydrologic/Met Stations
- Built-in key pad and easy-to-read display can be used for complete system configuration or to view measured values
- External button allows simplified means to view current data values
- Three RS-232 Serial Ports for use with local terminals, modems, GOES Radios, remote displays, etc.
- Four analog inputs
- SDI-12 Master mode
- Two programmable digital inputs/outputs
- One event counter input (Tipping Bucket Rain Gauge)
- Frequency input (wind speed)
- Quadrature shaft encoder input
- Scalable and programmable 4-20 mA Output
- Data logging capability using nonvolatile internal storage (16 Meg and up)
- Sealed, corrosion-resistant, nonconductive enclosure
- Operating temperature range of -40° to 60°C

SPECIFICATIONS

Performance

General Analog Input

Channels: 4 (Single Ended)
Ranges: Programmable (Channel 1 Only)
Resolution: 16-Bit Resolution (1 Part in 65536)
Accuracy: $\pm 0.02\%$ FS
Input Ranges: 0 to 5 Volts (All Channels)
0 to 500 mV (Additional Input Range Only Available on Channel 1)
Accuracy $\pm 0.15\%$

Excitation

5.0V Switched, Ratiometric with 10mA (max load)

Accuracy

± 1.0 mV Over Load and Temperature Range

Frequency Input

Input Range: 1-10 KHz at ± 75 mVolts or greater
1-15 KHz at ± 1 Volt or greater
Input Amplitude: ± 5.0 Max
Accuracy: $\pm 0.1\%$
Resolution: 1/10000 * Reading

Counter Input

Type: Switch closure or voltage pulse, Internal 50k pull up resistor, falling edge triggered.
Input Voltage: 0-5 Volts
Minimum Pulse Width: 5 mS
Input Frequency: 100Hz (max)

Digital I/O

Channels: 2, Independently configured for input or output
Input Voltage: 0-5 Volt
High Level: 3.5 V (min)
Low Level: 0.8 V (max)

Output Voltage

Low: 0.4 V (max) @ -5mA
High: 3.5 V (min) @ +5mA

4-20 mA Output

Resolution: 4.0 A

Data Storage

Type: Non-Volatile FLASH
Size: 64 Mb (Expandable)

Interface

SDI-12

SDI-12 Master Mode
Protocol: SDI-12, 7-bit even parity, 1 stop bit
Baud Rate: 1200

RS-232

Protocol: RS-232 Communication Ports
RS-232, 8-bit, no parity, 1 stop bit
Baud Rate: Programmable

Mechanical Data

Physical

Enclosure: Sealed, corrosion resistant fiberglass with clear Lexan® window
7.0 in. wide x 8.5 in. long x 4.3 in. deep
4.25 lbs.
Mounting: Hardware supplied for wall mounting

Power

Input Voltage: 10.0 to 16.0 Volts
Input Current: Sleep Mode: 4mA typical
Active: 80 mA average (measuring, display off)
Active: 250mA average (measuring, display on)
Auto display shut-off after 5 minutes

Environment

Temperature

Extended Operating Range: -40 to 60 C
Storage: -40 to 80 C

Humidity 0-95% non-condensing

Miscellaneous

Options

Data Logging: Data is stored internally to Nonvolatile Memory
GOES: H-222-SE (Signal Engineering) or
H-222 (Telonics)

Accessories (Supplied)

Cables/Connector: - 9-pin D connector cable required for RS-232 communication available (H-350-RSC)
- 9-pin D Male to Male Gender Changer
- RS-232 Null Modem Adaptor
- Sensor Terminal Block

Warranty

The **WATERLOG®** H-500XL™ is warranted against defects in materials and workmanship for one year from date of shipment.

Note

Specifications subject to change without prior notice due to ongoing commitment to product testing and improvement. LR June 18, 2003