

MODEL 3512

HydroMet Data Logger

- 8 Analog Inputs
- 5 Digital Inputs including SDI-12
- Graphical User Interface
- Fuse Protection on Solar Panel, Battery, 12V Switched
- 64 Megabytes of Removable Memory



PHONE: (800) 275-2080

HIGH SIERRA ELECTRONICS

FAX: (530) 273-2089



DESCRIPTION:

The Model 3512 Data Logger is a powerful and flexible addition to HSE's family of products designed with the field technician in mind. The 3512 is housed in an aluminum enclosure. The 3512 is typically housed in a gage house or NEMA 4 enclosure to protect it from the elements. Connections are made using plug-in terminal strips that allow quick disconnect for easy installation or replacement.

The 3512 accepts up to 8 Analog (plus internal battery), up to 2 shaft encoders, up to 2 precipitation, SDI-12, wind speed, wind direction and peak gust.

HSE's Insight Software (a graphical user interface; GUI) is used for fast, easy set-up from either a desktop or laptop computer in the field. The user can program the following parameters independently for each sensor to be logged: ID number, multiplier and offset, sample interval, amount of change needed to generate an analog event, transmission hold-off time, amount of change needed to override transmission hold-off time, a timed report interval and a logging interval.

The 3512 internal firmware is upgradable in the field. When new versions are released, they will be downloadable via the USB cable. The download process will take just a few seconds.

Data are logged on a Secured Data (SD) memory card and can be retrieved via the USB or serial port. The SD memory card can also be removed for later downloading and replaced with a spare card. The 3512 is supplied with a 64 Megabyte SD card and will support cards with up to 2 Gigabytes of memory.

Additional features include fuse protection on solar input, battery and 12V switched to avoid damage to the unit through shorting (these fuses automatically reset when they cool off); and, a dedicated USB port for programming, data retrieval, and uploading of new firmware versions that will be accessible at HSE's web site.

02-3512-00(C)

Environmental Monitoring Solutions

WEB SITE: www.highsierraelectronics.com E-MAIL: info@highsierraelectronics.com

MODEL 3512

Specifications



PHONE: (800) 275-2080

HIGH SIERRA ELECTRONICS

FAX: (530) 273-2089

SPECIFICATIONS:

Sensor Inputs 8 Analog 0-5V, Digital Inputs including SDI-12, up to 2 Up-Only Counters, up to 2 Shaft Encoders, Wind Run, ALERT Wind Format, and Peak Wind Gust.

Total Sensors..... 20

Real Time Clock Clock/Calendar with on-board Battery Back Up with Leap Year Correction

Sensor Type Definition SDI-12, Battery, Analog, Counters (e.g., Precip.), Shaft Encoders, Wind Run, ALERT Wind, and Peak Gust.

Programmable Parameters . . .

<u>Parameter</u>	<u>Field Size (Bytes)</u>
Sensor ID	2 (Signed Int, Sign ignored if next byte= 0)
Sensor Type #	1 (See Below)
SDI-12 Address	1
Analog Warmup	1
Sample Interval	2 (0-65535 sec or [18 hrs, 12 min, 15 sec.]
Report Interval	4 (0-2,147,483,647 or > 1 year)
Hold Off	2 (0-65535 seconds)
Change to Tx	2
Override to Tx	2
Precision	1
Adder	4 (float)
Multiplier	4 (float)
Base Set	2

Base Set User can initialize the current count on the following Sensor Types: Counters, Shaft Encoders, Wind Run and ALERT Wind.

Shaft Encoder Parameters . . . Supports Quadrature Format and Sierra Misco Format. Supports Reversing Direction & Pulsed or Continuous Power.

Live Sensor Reading Supports Reading sensors from User Interface.

Reporting Modes Each enabled sensor can be programmed to report/transmit on a user Timed-defined basis and/or on a user-defined amount of change, also known as Event Mode. The logger can also be interrogated using a variety of modems, including GSM/GPRS, fiber, and RF.

Logging Each enabled sensor can log data on a user-defined time interval, as well as on a defined amount of change. If the data logger is also being used as a data transmitter, it can be set to log data on transmission.

Logging Medium Data are recorded on a removable SD Memory Card.

Logging Capacity The file format has a capacity of 512 files. The 3512 creates a file for each sensor each Month. To determine the capacity, divide 512 by the number of enabled sensors. This will give you the number of months of data storage capacity. For example, a site with 5 sensors can store 8.5 years of data [(512 files/5 sensors =102.4 months)/12= 8.5333 years.] Logged data can be retrieved using the Insight Software (Windows GUI) through the USB connector or using a built-in or stand alone SD card reader.

Low Battery Holdoff When the battery drops below 10.5V, RF Transmissions (if used) are disabled. Data logging continues if transmissions stop due to low battery.

02-3512-00(C)

Environmental Monitoring Solutions

WEB SITE: www.highsierraelectronics.com E-MAIL: sales@highsierraelectronics.com

MODEL 3512

Specifications and Ordering Guide



PHONE: (800) 275-2080

HIGH SIERRA ELECTRONICS

FAX: (530) 273-2089

SPECIFICATIONS: (Continued)

Programming	HSE Insight Software (Windows GUI) or Rotary Switches
Data Format	ALERT Binary Standard
Temperature Range	-50° C. to +70° C.
Operating Temperature	-40° C. To +60° C.
Lightning Protection	Standard on ALL inputs.
Power	12 VDC < 1mA
Battery	12 VDC
Warranty	3 Years from date of shipment.
Size:	5.75" X 6.75", Metal Chassis
Weight	2 Pounds
Estimated Shipping Weight ..	5 Pounds

ORDERING GUIDE:

Model 3512	Hydromet Data logger with Programming Cable and Copy of Insight Software.
Model 3306-20	Insight Software (replacement)
Model 3306-56	Programming Cable (replacement)

02-3512-00(C)

Environmental Monitoring Solutions

WEB SITE: www.highsierraelectronics.com E-MAIL: sales@highsierraelectronics.com

MODEL 3512 INSIGHT Software Screen Shots



PHONE: (800) 275-2080

HIGH SIERRA ELECTRONICS

FAX: (530) 273-2089

High Sierra Insight Software

File Transfer Help

RTU I/O Reporting Clock Realtime Data Logged Data SDI 12 Transparent Mode Repeater

Defined I/O Points

ID / Relative	Offset	Addr	Type	Name	Add	Multi
0000 Yes			Counter 1	Rain Gauge	0	1
0005 Yes			Battery	Battery	0	1
0001 Yes			Analog 1	Humidity	0	1
0002 Yes			Analog 2	Air Temp	0	1.8
0004 Yes			Analog 4	Baromet.Pres	0	.4
-0002 Yes			ALERT Wind	ALERT Wind	0	1
0007 Yes			Peak Gust	Peak Gust	0	.5482

Configure I/O Points

Name: Rain Gauge Type: Counter

Channel #: 1 ID / Offset: 0 Relative Addressing

Address: 0 Multiplier: 1

Set Baseset

Update a Sensor

Add a Sensor Delete a Sensor

Retrieve RTU Parameters -> ... Send RTU Parameters -> ... Sensor Read -> Start

High Sierra Insight Software

File Transfer Help

RTU I/O Reporting Clock Realtime Data Logged Data SDI 12 Transparent Mode Repeater

Defined I/O Points

ID / Relative	Offset	Addr	Type	Name	Add	Multi
0000 Yes			Counter 1	Rain Gauge	0	1
0005 Yes			Battery	Battery	0	1
0001 Yes			Analog 1	Humidity	0	1
0002 Yes			Analog 2	Air Temp	0	1.8
0004 Yes			Analog 4	Baromet.Pres	0	.4
-0002 Yes			ALERT Wind	ALERT Wind	0	1
0007 Yes			Peak Gust	Peak Gust	0	.5482

Configure I/O Points

Name: ALERT Wind Type: ALERT Wind

ID / Offset: -2 Relative Addressing

Address: 0 Multiplier: 1

Warm Up:(Seconds) 1

Predivide: 10204

02-3512-00(C)

Environmental Monitoring Solutions

WEB SITE: www.highsierraelectronics.com E-MAIL: sales@highsierraelectronics.com