

# NOS-APPROVED TIDE STATIONS HYDROGRAPHICS GAGE 3102-0000-2



QUICKLY DEPLOYABLE, THE HYDROGRAPHICS GAGE INCLUDES SUTRON'S XLITE DATALOGGER & SATLINK2 TRANSMITTER/LOGGER.

## HYDROGRAPHICS GAGE 3102-0000-1 SPECIFICATIONS

Dimensions	H 12" x W-24" x L-30"
Weight	7 lbs.
Temperatures	-40°C to +60°C Operating; Display -20°C to +60°C

## XLITE DATALOGGER SPECIFICATIONS

Processor	486 Class processor @66 MHz
Memory	32 MB Flash Memory for log & configuration Expandable!; 16MB Flash Operating System 32 MB RAM Expandable SD/MMC cards & USB to >1 Gigabyte
Battery Backup	Unnecessary for Log : memory is flash. Internal lithium battery for clock: 2 yrs min.
Watchdog Timer	System Reset upon microprocessor failure
Sample Intervals	Set multiple sample intervals at increments of 1 sec. to 24 hr. in 1 second increments
Data Retrieval	Thru RS-232 Ports & SD/MMC cards & USB
On Board Display	2 line by 20 character alphanumeric LCD
External Display	Full feature Windows display
SDI-12	Dedicated SDI-12 V1.3
Communications	4 RS-232 ports; Up to 4 of the following types SIMULTANEOUSLY: Satellite Radio, LOS Radio, Data & Voice Modem, Direct Connect, MODBUS
Power Supply	No internal battery or charger. External 12V. battery operates Xlite.
Power Consumption	Quiescent: <2 mA Typical Avg: 2 1/2 mA @ 15 - minute intervals of shaft encoder sample
Digital Inputs & Outputs	8 digital I/O lines, 1 hf (8Kz), 2 input only 6 bi-directional Inputs support shaft encoders, tipping buckets, counters & binary inputs. Software controls switched 12VDC power. Expandable I/O by external I <sup>2</sup> C modules - 2 low level for tipping bucket or wind speed/wind direction without amplifier.
Shaft Encoders	Quadrature output encoder (3 max.) uses 2 digital inputs each. 7 bit gray code encoder (1 max) uses 7 digital inputs; Expandable using external I <sup>2</sup> C modules
Tipping Bucket Input	100 Kohm switch closure pullup.; Rain gage software debounced w/1 digital input ea.
Counter Inputs	Input Frequency: 1 channel @ 8kHz max, 7 channels @1 kHz max.



Counter Accuracy	± 0.1% with 32 bit resolution. Expandable using external I <sup>2</sup> C modules
Analog Inputs	10 Inputs single ended, or up to 5 differential, expandable using external I <sup>2</sup> C modules
Resolution	16 Bits
Accuracy Ratiometric	± 0.01% of full scale
Input Range	0-5V full scale
Volt. Measurement	5V single ended; ± 2.5 V differential
DC Excitation Output	+2.5, +12V Expandable using external I <sup>2</sup> C modules

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## HYDROGRAPHICS GAGE - SATLINK2 SATELLITE TRANSMITTER/LOGGER, TRANSMITTER SPECIFICATIONS

Operating Voltage	10.4 to 15 VDC, reverse voltage protected
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LED Indicators	Status, Fault, Transmit
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### CONNECTIONS

Power	Built-in cable
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GPS	SMA Bulkhead Mounted
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RS 232	DB9
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SDI-12	5 position removable terminal strip
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Tipping Bucket	5 position removable terminal strip
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Analog Input	7 position removable terminal strip
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Timekeeping	Accurate within 10 ms
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### POWER REQUIREMENTS @ 12.5 VDC

Quiescent	6 mA typ
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Transmitting 100/300 bps	3.2 amps typ
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Transmitting 1200 bps	4.2 amps typ
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### RECOMMENDED ANTENNA

5000-0080 or 0081	Sutron Yagi, 10.5 dB gain (-0081 is stainless steel)
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5000-0010-1	INSAT Yagi
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5000-0010-2	INSAT Yagi, stainless steel
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### TRANSMISSION FORMAT

METEOSAT	SHEF & Pseudo Binary formats
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CE Approved	INSAT 422 bit format
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### TRANSMISSION MODES

100 bps GOES random & self-timed
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300 bps GOES random & self-timed
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1200 bps GOES random & self-timed
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4800 bps INSAT selectable 10 min. window (3 randomized repeat sequence)
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METEOSAT Alert & Self Timed
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ARGOS/SCD Format
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### TRANSMITTER OUTPUT POWER

Software selectable power levels	7.0 Watt nominal, 100/300 bps
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