

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



THE HYDROGRAPHICS GAGE INCLUDES SUTRON'S XLITE DATALOGGER AND SATLINK2.

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	4 MB flash disk provided for the log & application Upgrades expandable using PCMCIA optional feature to >1 Gigabyte 4MB Flash Operating system; 8 MB RAM
Battery Backup	Not needed for Log because memory is flash. Internal lithium battery used for clock only: 2 years min.
Watchdog Timer	System Reset upon microprocessor failure
Sample Intervals	Multiple sample intervals can be set at increments of 1 sec. to 24 hr. in 1 second increments
Data Retrieval	Through RS-232 Ports & PCMCIA optional feature
On Board Display	2 line by 20 character alphanumeric LCD
External Display	Full feature Windows display
SDI-12	Dedicated SDI-12 V1.3
Communications	Three (3) RS-232 ports that can support Up to 3 Comms Satellite Radio, LOS Radio, Telephone w/Modem & Speech Synthesis, Direct Connect MODBUS Communications Protocol via LOS radio, CDPD modem INTERNET connection or dial up telephone
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 can be configured to support shaft encoders, tipping buckets, counters & binary inputs. Software Control of switched 12VDC power. Expandable I/O using external I ² 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 ² C modules
Tipping Bucket Input	100 Kohm pullup for switch closure; Rain GAGE software debounced uses 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 ² C modules
Analog Inputs	10 Inputs single ended, or up to 5 differential, expandable using external I ² C modules
Resolution	16 Bits
Accuracy Ratiometric	± 0.01% of full scale
Input Range	0-5V full scale
Voltage Measurement	5V single ended; ± 2.5 V differential
DC Excitation Output	+2.5, +12V Expandable using external I ² C modules
Pressure Transducer	Bridge type sensors require 2 channels Voltage output sensors require 1 channel. Current output sensors require external bridge completion resistor 1 channel.

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



THE HYDROGRAPHICS GAGE INCLUDES SUTRON'S XLITE DATALOGGER AND SATLINK2.

HYDROGRAPHICS GAGE - SATLINK2 SATELLITE TRANSMITTER/LOGGER, TRANSMITTER SPECIFICATIONS	
Operating Voltage	10.4 to 15 VDC, reverse voltage protected
LED Indicators	Status, Fault, Transmit
CONNECTIONS	
Power	Built-in cable
GPS	SMA Bulkhead Mounted
RS 232	DB9
SDI-12	5 position removable terminal strip
Tipping Bucket	5 position removable terminal strip
Analog Input	7 position removable terminal strip
Timekeeping	Accurate within 10 ms
POWER REQUIREMENTS @ 12.5 VDC	
Quiescent	6 mA typ
Transmitting 100/300 bps	3.2 amps typ
Transmitting 1200 bps	4.2 amps typ
RECOMMENDED ANTENNA	
5000-0080 or 0081	Sutron Yagi, 10.5 dB gain (-0081 is stainless steel)
5000-0010-1	INSAT Yagi
5000-0010-2	INSAT Yagi, stainless steel
TRANSMISSION FORMAT	
	SHEF & Pseudo Binary formats
	INSAT 422 bit format
	METEOSAT
	CE Approved
TRANSMISSION MODES	
	100 bps GOES random & self-timed
	300 bps GOES random & self-timed
	1200 bps GOES random & self-timed
	4800 bps INSAT selectable 10 min. window (3 randomized repeat sequence)
	METEOSAT Alert & Self Timed
	ARGOS/SCD Format
TRANSMITTER OUTPUT POWER	
	Software selectable power levels
	7.0 Watt nominal, 100/300 bps
	14.0 watt nominal 1200 bps
	3.5 watt (adjustable to 18 watt) INSAT