SUTRON

SUTRON Logger/Transmitter
XLink 100/500

a brand of **OTT** HydroMet

SUTRON Logger/Transmitter
XLink 100/500

**Logger/Transmitter
with Cellular or IRIDIUM® Communications**

Sutron's XLink product family offers a cost-effective Wi-Fi enabled datalogger with data transmission via IRIDIUM or Cellular. Ideal for use with multiple digital and analog sensors supporting basic or advanced monitoring applications.

" Save time and reduce field visits with remote two-way communication. "

The product comes in two models tailored to fit different application and budget requirements. The XLink 100 and XLink 500 carry over all the great capabilities from its predecessor family *(CDMALink, HSPALink, GPRSLink, IridiumLink).*

Simple and intuitive datalogger and communication setup over Wi-Fi using a smart phone, tablet or PC.

Accessories and parts

Features/Benefits

Keep up with fast moving communications technology
- Plug and play modem cards allow for easy upgrade of cellular/telecom technologies (e.g., 3G to 4G)
- Cellular modem options include 3G, 4G, and cellular IoT (CAT-M1/LTE-M)
- Reduced modem setup time with automatic modem recognition
- Field exchangeable, easily move from one telemetry type or service carrier to another

Custom programming with Python scripts (available with XLink 500)
- Supports applications beyond standard configuration, including custom measurements, transmission formats and user defined computations
- Large developer community supports this modern, easy to learn scripting language

Two-way communication and remote configuration
- Reduce time and cost of visiting field station to check, change, or download configuration or turn on/off instruments
- All datalogger features and configuration options available remotely via cell
- Improve data access and eliminate data gaps with on-demand data retrieval
- Complete network management is possible – move from single station management

Collect more data more often while in alarm
- Reduce transmission costs by sending data more frequently only when data is needed at a faster interval
- User definable alarm thresholds and adaptable intervals

Easy interaction through USB flash drive
- Quickly modify configuration or upgrade firmware
- Automatically download data, diagnostics and events
- Load Python scripts

Simple and intuitive software
- LinkComm software used with all Sutron XLink and SatLink 3 dataloggers
- Common software reduces training requirements
- Simple setup over Wi-Fi using a smart phone, tablet or PC
- Pair with AQUARIUS or Hydromet Cloud, data management software, to access and manage real-time data and alerts

Secure communication
- Send encrypted data over secure HTTPS
- HTTP(S), FTP(S) and Socket (TCP/IP) transmission protocols

Small datalogger footprint
- Reduce enclosure costs with smaller datalogger footprint
- Easy to conceal small datalogger and enclosure

Supports multiple interfaces and protocols
- Use with wide range of sensors, incl. SDI-12, RS-232, RS-485
- Simple configuration of SDI-12, SDI-12 over RS-485 and ModBus (Client or Server; RTU or ASCII) sensors
- Easily connect external modems or displays
- Supports common formats, including: ASCII, CSV, SHEF, Pseudobinary, OTT MIS

Environment

Applications

- Remote and urban environmental monitoring
- Surface water stream gaging
- Water quality monitoring
- Basic meteorological stations

Basic Meteorology

Water Quality

Rainfall Station

Technical Specifications

	XLink 100	XLink 500
General information		
Dimensions	Inches: 4.5 x 6.2 x 1.6, / cm: 11.4 x 15.8 x 4.1	Inches: 4.5 x 6.2 x 1.6 / cm: 11.4 x 15.8 x 4.1
NEMA-4	Inches: 7.3 x 9.5 x 5.2 / cm: 18.5 x 24.2 x 13.2	Inches: 7.3 x 9.5 x 5.2 / cm: 18.5 x 24.2 x 13.2
Weight	1 lbs. (0.5 Kg)	1 lbs. (0.5 Kg)
IP rating	IP66 (NEMA variants)	IP66 (NEMA variants)
Operating temperature	-40 °C to +70 °C (-40 °F to +158 °F)	-40 °C to +70 °C (-40 °F to +158 °F)
Modem Options	IRIDIUM, Cellular (3G, 4G, CAT-M1/LTE-M)	IRIDIUM, Cellular (3G, 4G, CAT-M1/LTE-M)
Compliance	CE, FCC, ISED	CE, FCC, ISED
Power requirements		
Voltage	9–20 VDC; 10–16 VDC for SDI-12 Compliance	9–20 VDC; 10–16 VDC for SDI-12 Compliance
Quiescent	< 1 mA typ. @12.5 VDC	< 1 mA typ. @12.5 VDC
SDI-12 (Dedicated interface)		
Compliance	V1.3 data recorder	V1.3 data recorder
Power	500 mA, short-circuit protected	500 mA, short-circuit protected
Analog - Single ended (XLink 500 only)		
Number of inputs	-	2
Range*	-	0–5 V
Accuracy @ 25 °C	-	0.04 % typ. FS
Resolution	-	0.3 µV
Analog - Differential (XLink 500 only)		
Number of inputs	-	2
Range*	-	±39 mV, ±312 mV, ±2.5 V
Accuracy @ 25 °C	-	0.04 % typ. FS over 2.5 V
Resolution	-	0.3 µV @ ±2.5 V scale
Analog - 4-20 mA (XLink 500 only)		
Number of inputs	-	1
Range	-	0–22 mA
Accuracy @ 25 °C	-	0.14 % FS
Load	-	Internal 200 ohms
Digital inputs/outputs		
Number of inputs	2	2
Input type	0–15 V, optional low-level input Status, counter, frequency	0–15 V, optional low-level input Status, counter, frequency
Max input frequency	10 KHz, optional debouncing, internal pull	10 KHz, optional debouncing, internal pull
Number of outputs	1	1
Output types	On/off/pulse, Open collector w/ 100 ohm limiting resistor. 100 mA, 15 V max	On/off/pulse, Open collector w/ 100 ohm limiting resistor. 100 mA, 15 V max
Other inputs/outputs		
Precision analog reference (XLink 500 only)	-	2 terminals, 2.5 V, 10.0 mA (total)
Switch 12V	1A, 1 port, overloaded protected	1A, 1 port, overloaded protected
Protected 12 V (XLink 500 only)	-	0.75 A, 1 port
RS-485	1 port; SDI-12, ModBus	1 port; SDI-12, ModBus, custom communications with Python
RS-232	DB9; terminal interface, User interface, ModBus	DB9; terminal interface, User interface, ModBus, custom communications with Python
USB Device (Micro B)	1 port; PC/MAC communication using Sutron's LinkCOMM	1 port; PC/MAC communication using Sutron's LinkCOMM
USB Host (Type A)	1 port; setup, firmware update, log download using a USB flash drive	1 port; setup, firmware update, log download using a USB flash drive

NOTE: *RECOMMEND installing XLINK500 or XLINK100 in a NEMA-4 enclosure for all applications requiring outdoor exposure. Recommend the internally mounted lightning protection kit 6661-1353-1 for the -1E or -1C models or an externally mounted lightning protection module such as the 8111-1113-1 to protect the telemetry RF output.*

* *Nominal. Guaranteed Analog Input Range Over Temperature Is 0–4.98 V, ± 2.49 V, ±311 mV, ±38.9 mV.*

Up to date information on available modems and supported cellular carriers can be found on our website, OTTHydroMet.com

Insights for Experts

For more information, please contact

OTT Hydromet Corp.
22400 Davis Drive, Suite #100
Sterling, VA 20164 | USA
T +1 (703) 406-2800
sales@otthydromet.com
www.otthydromet.com

SUTRON

a brand of **OTT** HydroMet