

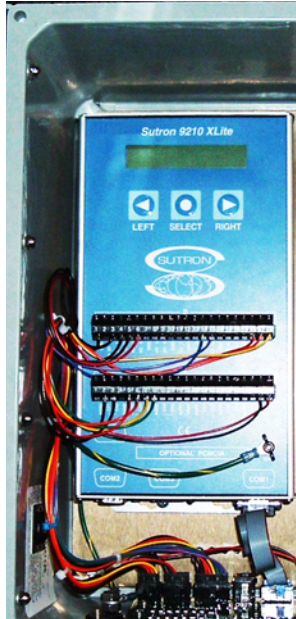
XLITE 9210 DATALOGGER

9210-0000



A COMPACT DATALOGGER WITH A 486 PROCESSOR!

SUTRON



FEATURES

- 8 Digital I/Os & 10 Analog Inputs - Expandable!
- I²C Input for additional I/Os*
- SDI-12 Input
- 4 MB Standard Log - Expandable >1 Gigabyte
- MODBUS Communications
- 486 @ 66 MHz processor, 32 bit
- Scalable — simple to complex applications
- Battery operated — 9.5 to 16 VDC
- Low power — quiescent <2mA
- Wide temperature range — -40 to +60°C
- Multiple telemetries — Telephone, LOS Radio, Satellite (up to 3)
- Flexible measuring & recording, user selectable
- Separate measuring schedules for data & individual recording intervals. Min, max, average, accumulations, time-tag logging, data compression. Separate log for notes, system events. Changes to setup do not affect logged data.
- Open design — integrates w/ other mfg. sensors & modules
- High speed data transfers - up to 115200 BPS
- Flash memory for data & events
- Plug-n-play easy setup w/graphical view
- Automatic I/O Module Configuration

APPLICATIONS

Highly modular, the rugged XLite handles a wide-range of remote monitoring & control systems, for simple or complex applications. With a vast programmable sensor library, it supports a variety of portable & permanent stations including....

- Automatic Weather
- Synoptic Weather
- Tidal & Coastal
- Agricultural/AgMet
- AWOS Stations
- Hydromet



Sutron Hydro=Met Station in Antarctica featuring XLite Datalogger & Iridium Modem

SATLINK2 & XLITE: OPTIONS

XLite can be ordered with or without an enclosure and packaged with or without SatLink2.

ENCLOSURE FEATURE XLite combined with SatLink2	6661-1275-1	6661-1276-1
14.13" X 12.26" X 6.13"	✓	✓
2 twist-lock latches + space for lock	✓	✓
3 DIN rails to mount optional equipment inside (ie, I/O modules, modems, etc.)	✓	✓
Protection Board Mounting Holes	✓	✓
3 digital, 4 analog, VREF, SW'D 12, 4 SDI-12, Input Power & a phone line (RJ to Terminal block) supplied	✓	✓
3 PG-9 and 2 PG-11 plugs	✓	✓
Cable strain relief fittings for additional wires	✓	✓
Single point grounding connector	✓	✓
GPS and RF-out connections included		✓
RF-out configured for panel-mounted Polyphaser Lightning Protection (in RF-out & ground connections)		✓

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SPECIFICATIONS

DIMENSIONS	11"x6"x3": Aluminum, IP52 drip resistant when installed vertically. Suitable for gauge house, shelter, NEMA enclosure	DIGITAL INPUTS & OUTPUTS	8 digital I/O lines, 1 hf (8Kz)
WEIGHT	3.6 lbs.		2 input only 6 bi-directional
TEMPERATURES	-40°C to +60°C Operating		Supports 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. Includes CMOS.
ALPHANUMERIC DISPLAY TEMP.	-25 ≤ T ≤ +55 °C	ANALOG INPUTS	10 Inputs single ended, or up to 5 differential, expandable using external I ² C modules
AMBIENT RH	0 to 95%	REF. VOLTAGE	1 voltage exit precise to 5 VDC
PROCESSOR	486 Class processor @66 MHz	OUTPUT	+12VDC SW power available
MEMORY	4 MB flash disk for log, upgrades. Expandable to >1 Gigabyte 4MB Flash Operating system 8 MB RAM	VOLTAGE MEASUREMENT	5 V single ended ± 2.5 V differential
BATTERY BACKUP	Not needed for Log (flash memory) Internal lithium battery for clock only: 2 years min.	DC EXCITATION OUTPUT	+2.5, +12V Expandable using external I ² C modules
WATCHDOG TIMER	System Reset upon microprocessor failure	I/O INTERNAL PROTECTION	Outlets internally protected against short circuits.
REAL TIME CLOCK	Real-time clock accurate from 1 minute per month & is adjustable using software.	SOFTWARE SELECTABLE	Operation mode is software selectable w/ frequency, analog & counter inputs
SAMPLE INTERVALS	Multiple sample intervals set at increments of 1 sec. to 24 hr. in 1 second increments	SHAFT ENCODERS	Quadrature output encoder (3 max.) uses 2 digital inputs each.
DATA RETRIEVAL	RS-232 Ports & PCMCIA (optional)		7 bit gray code encoder (1 max) uses 7 digital inputs
DISPLAY	2 line by 20 character alphanumeric LCD		Expandable using external I ² C modules
EXTERNAL DISPLAY	Full feature Windows display	TIPPING BUCKET	Input: 100 Kohm pullup for switch-closure software debounced uses 1 digital input each
SDI-12	Dedicated SDI-12 V1.3	COUNTER INPUTS	Input Frequency: 1 channel @ 8kHz max, 7 channels @1 kHz max.
COMMUNICATIONS	3 RS-232 ports for Satellite Radio, LOS Radio, & Telephone Modem w/ Speech Synthesis Up to 3 of following: 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	COUNTER ACCURACY	± 0.1% with 32 bit resolution. Expandable by external I ² C modules
POWER SUPPLY	No internal battery or charger. External 12V battery operates Xlite.	ACCURACY RATIO-METRIC	± 0.01% of full scale
MAXIMUM VOLTAGE	Surge protection built-in to withstand transients up to 20VDC	ABSOLUTE ACCURACY	0.1% -40-+60C
POWER CONSUMPTION	Quiescent <2 mA Typical Avg 2 1/2 mA @ 15 - minute intervals of shaft encoder sample	INPUT RANGE	0-5 V full scale

ORDERING

9210-0000-1A	XLite, basic
9210-0000-2A	XLite with PCMCIA option
9210-SL2-1A	XLite with SatLink
9210-SL2-2A	XLite with SatLink plus PCMCIA option
9210-ENC	XLite within rugged enclosure
9210-ENC-SL2	XLite w/SatLink within enclosure

EXPANSION ACCESSORIES

8080-0002-1	Xpert Digital I/O Module
8080-0003-1	Xpert Analog I/O Module
8080-0005-1	Voice Modem Module
6661-1275-1	XLite Enclosure (empty)
6661-1276-1	XLite w/SL2 Enclosure (empty)

XLITE 9210 DATALOGGER XTERM COMMUNICATIONS PROGRAM



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Sutron's XTerm communications program allows any PC to remotely setup and operate an Xpert or XLite - without using a front panel.



FEATURES

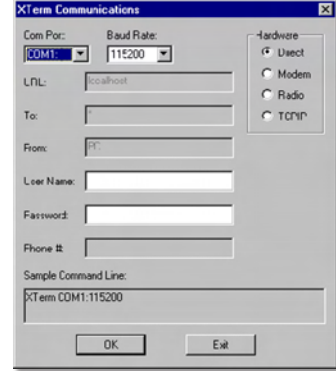
- Remote operation of XPert or XLite
- Automatically displays the graphic display of the XPert or XLite
- Sends mouse clicks to the XPert or XLite as if you were pressing the touch screen
- Easy file transfer to allow uploading and downloading of setups, programs, and data files
- Set the clock of the XPert or XLite with a single button
- Export logged recordings to your PC
- Communicate to an XPert or XLite via RS232 com ports 1-9 at up to 115200 baud.
- Supports Direct Connect, Hayes (TM) style Modems, and Keyed Half Duplex Radio Systems
- Communicate to an XPert or XLite via a TCP/IP network.
- Communicate over the internet by using XTerm as a proxy
- Automatically prompts for login account and password when needed.
- Display system information regarding running processes, threads, and memory usage

APPLICATIONS

- Automatic Weather Station
- Agricultural/AgMet Station
- Synoptic Weather Stations
- AWOS Stations
- Tidal Stations
- Hydromet Stations
- Fire Weather Station
- Water Level Station
- Water Level/Rainfall Station
- Gate Control Station
- Water Distribution Control Station
- Stream Gauging
- Irrigation Control Station
- Your Application!

XTERM SCREEN

No special installation is needed for XTerm. Simply copy it to any folder on your PC. When you run XTerm, you will see this screen:



Use the controls on the screen to select the com port, baud rate, type of hardware (direct, modem, radio, TCP/IP) and related values. Then select OK and Xterm will begin operation