XLite 9210 Datalogger & Controller
Models with Enclosures

Overview

The XLite 9210 Datalogger, a high performance data recorder & communications device for unattended, remote data acquisition, control & communications, is a multi-tasking logger with a 32-bit processor capable of making measurements & communicating simultaneously.

Features

▶ **Removable Media Support**

- ▪ SD Cards
- ▪ MMC Cards
- ▪ USB Thumb Drives

▶ **65 MB built-In non-volatile memory** (1 to 3 million readings.) 32MB Flash Memory for log & configuration files . Expandable via SD Cards.

▶ **32-Bit Processor**

▶ **Built-in Ethernet**

▶ **Multiple Communications Simultaneously**

▶ **Unparalleled Sensor Support**

> ▶ XLite provides unparalleled sensor support through expansive I/O's & built-in program libraries. Analog & digital modules plug into the I^2C port. Support is also provided for single voltage, differential voltage, resistance, 4-20mA, frequency, counter, binary, binary alarm, grey-code binary, smart serial (RS-232 and RS-485), SDI-12, etc.

> ▶ With **32 MB of Flash disk** for storage, the Xpert also has 4 communications serial ports for satellite transmitters, modems, radios & other serial communication devices.

> ▶ Get data w/any communication interface, USB or SD memory card.
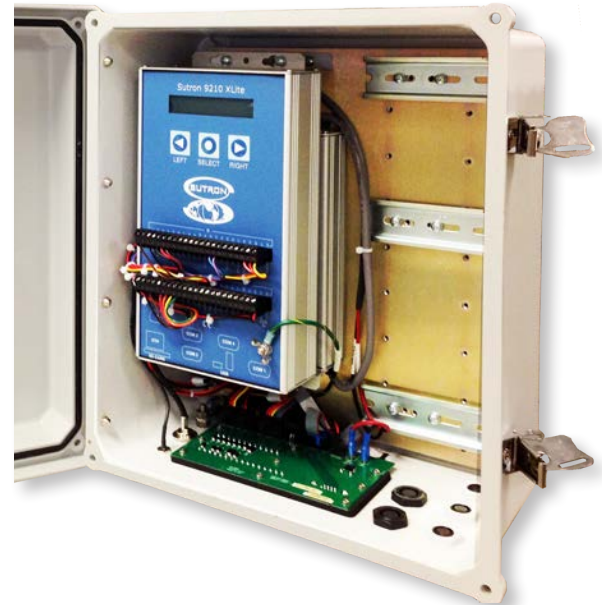
▶ **Robust Logging**

> XLite boasts 32 MB built-in memory expandable via removeable media. Logged data is compressed and not affected by changes to the Setup. System events are logged independently of measurement data.

▶ **Flexible Scheduling**

> **Each measurement can be independently scheduled.** Sample intervals can be set from 1 sec. to 24 hr., in 1-second increments. Built-in functions to support min, max, average, & accumulation calculations included.

▶ **Event Driven Processing**

> Digital inputs can be configured to trigger measurement processing, including logging and telemetry transactions.

▶ **Easy to Use Display**

> Xlite provides a 2-line LCD character display & 3 front panel control buttons, making it very simple to view data & make minor Setup changes in the field.

▶ **Intuitive Set-Up**

> System Setup & configuration uses Sutron's XTerm, with the same interface as Sutron's Xpert (based on Microsoft Windows CE, intuitive & easy to use).

Applications

▶ Meteorology and Climatology

▶ Agrometeorology

▶ Natural Resources

▶ Oceanography

▶ Aviation (AWOS)

▶ Disaster Warning

▶ Water Level and Flow

▶ Water Quality

▶ Hydrology

▶ Air Quality

▶ Visibility

▶ Geotechnical

- ✓ Dam Safety
- ✓ Structural Stability

▶ Structures

▶ Energy

- ✓ Solar Farm
- ✓ Wind Farm

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SPECIFICATIONS
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SPECIFICATIONS	
Specifications subject to change without notice.	
Measurement Interval	1.0 second to 24 hours (programmable)
Measurements Supported	Unlimited
Analog Channels	10
Input Voltage (Common Mode)	-0.1 to 5V with respect to ground, single ended or differential
Range	
Single-Ended	0-5 V, ± 78 mV (with respect to ground)
Differential	±2.5V, ±78 mV (+ input with respect to –input)
Accuracy	0.002% of 5V typ 0.003% of 78mV typ
Resolution	16 bit
Expandable	via I^2C & SDI-12
Digital Inputs/Outputs	8 (6 Bi-Directional, 2 input only)
Functions Supported	Status, counter, frequency & quadrature inputs
Max Frequency	Channel 1, 8KHz; other channels 1KHz
Low Level AC Inputs Support	Channels 7 & 8 support low level AC frequencies (e.g. RMYoung)
Output Type	Open collector with 100 ohm current limiting resistor, 100 mA max, 15V max
Expandable	via I^2C and SDI-12
Excitation Channels	5 Channels
Type(s)	Precision Voltage Reference, switched battery, switched +5, protected +12V, protected +5V
Communication Ports	4 RS232 for communications
Telemetry	Satlink3, Sutron Data & Voice Modem, Radio, Direct Connect, GPRS, IRIDIUM, MODBUS, & custom devices via BASIC
Communications	4 Simultaneous Communications
Operating Temperature	-40°C to +60°C
Display Operating Temp.	LCD operates to -20°C
Display Type	2x20 character sunlight-readable backlit LCD
Keypad Type	3 buttons
Memory	
Built-In Non-Volatile	65MB (1- 3 ,000,000 readings), RAM: 32 MB
SD/MMC Card	For download data and read/write setups or additional log memory
Ethernet	Built in Ethernet support
Clock Accuracy	5.4 sec/month (at 0°C – 40°C)
Power Requirements	10-16VDC (20VDC max)
Current Drain	Typically 3mA standby, 40mA active
Communication Protocols Supported	SSP (Sutron Standard Protocol), MODBUS, MODEM, Telnet, HTTP, FTP, DHCP, DNS, SLIP, PPP, & custom via Basic (RS-232, TCP, & UDP)
Programming	Menu-driven setup, Expanded complexity via BASIC, Custom capability via C++

DIMENSIONS	STANDARD	SHIPPING
Height	16" (40.7 cm)	26"(66 cm)
Length	14" (35.6 cm)	20" (51 cm)
Width	8" (20.4 cm)	12" (30.5 cm)
Weight	15.3 lbs. (7 Kg)	20 lbs. (9.1 Kg)

XLITE with ENCLOSURE ORDERING

9210-ENC-B	Xlite Datalogger in Enclosure
9210-SL2-ENC-B	Xlite Datlogger with Satlink-2, in Enclosure
9210-SL2-ENC-M	Xlite Datalogger with Satlink-2, in Enclosure, With Modem
9210-SL3-ENC-B	Xlite Data Recorder with SatLink3, in Enclosure
9210-SL3-ENC-M	Xlite Data Recorder with SatLink3, in Enclosure, With Modem
9210-SL3-2B	Xlite Data Recorder with SatLink3 Transmitter, (replaces the 9210-SL2-1A & 2A)

XPERT/XLITE I/O MODULES

8080-0002-1	Digital I/O Module, 8 Channels Auto reset after surge.
8080-0002-4	Digital I/O Module w/Surge Protection. Multi-stage circuitry & auto reset after surge.
8080-0003-1	Precision Analog I/O Module 6 Channels Auto reset after surge.
8080-0003-3	Precision Analog I/O Module, 6 Channels with Surge Protection. Auto reset after surge. 24" cable.
8080-0007-1	Xpert Analog I/O Module, 10 Channels, 16 bit Built-in surge protection.
8080-0005-1	Voice Modem Module
8080-0008-1	Fire Weather I/O Module (RAWS). Integrated Fire Weather package w/digital I/O modules, analog I/O modules, voice modem & all connectors. *(For NFDRS Update-Compliant Remote Automatic Weather Stations - RAWS)*

SURGE PROTECTION

6461-1241-2T	SDI-12 Surge Protection Module Provides connection for two SDI sensors, surge protection.
6461-1240-1T	Telephone Surge Protection Module Connection, for one twisted pair.
6461-1242-1T	Power Surge Protection Module Channels to monitor solar panel voltage, battery voltage, AC.
6461-1239-1T	RS232 Surge Protection Module Termination for 1 sensor with RS-232 output.
6461-1238-2T	Digital Surge Protection Module for sensors with digital outputs.
6461-1237-1T	Analog Surge Protection Module for sensors with analog outputs.

ADDITIONAL MEMORY

6661-1293	SD Card w/2 Gig available mem.

COMMUNICATIONS MODULES/MODEMS

8080-0005-1B	Voice Modem Module Telephone modem,V.34, V.42bis
8080-0005-2B	Voice Modem Module, King Radio voice module
ISBD-1-O	Iridium Modem
GPRS-1-O	GPRS Modem
SL3-XMTR-1	Satlink3 Transmitter for use with external datalogger