

XLite 9210 Datalogger & Controller

Models without 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
- ▶ **32MB Flash Memory**
 - Standard 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 I²C 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

SPECIFICATIONS		
<i>Specifications subject to change without notice.</i>		
Measurement Interval	1.0 second to 24 hours (programmable)	
Measurements Supported	Unlimited number of measurements supported	
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	± 2.5 V, ± 78 mV (+ input with respect to - input)	
Accuracy	0.002% of 5V typ 0.003% of 78mV typ	
Resolution	16 bit	
Expandable	via I ² C & SDI-12	
Digital Inputs/Outputs	8 (6 Bi-Directional, 2 input only)	
Functions Supported	Status inputs, counter inputs, frequency inputs, quadrature input	
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 ² C 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	Satlink2, Sutron Data & Voice Modem, Radio, Direct Connect, GPRS, IRIDIUM, MODBUS, and 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 to 3 million 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	11" (28 cm)	14 in. (35.6 cm)
Length	6" (15.3 cm)	10 in. (25.4 cm)
Width	3" (7.7 cm)	6 in. (15.3 cm)
Weight	2 lbs. (0.9 kg)	5 lbs. (2.3 Kg)

XLITE ORDERING (NO ENCLOSURE)

9210-0000-2B	XLite Datalogger, 4 Comms
9210-0000-3B	XLite Datalogger, 8 Comms
9210-0000-4B	XLite Datalogger, 8 Comms plus RS485
9210-SL2-2B	XLite Datalogger with Satlink-2 XLite packaged with SatLink2 GOES Logger/Transmitter.
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. <i>(For NFDRS Update-Compliant Remote Automatic Weather Stations - RAWS)</i>
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 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
SL2-G312-V2	Satlink V2