

# X2-SDLMC

## SUBMERSIBLE DATA LOGGER

- Wet-mateable sensor and power ports
- Cellular or Iridium satellite telemetry
- Optimized for use with CB-25 data buoy
- Supports a variety of environmental sensors
- Complete system is truly submersible

The **X2-SDLMC** Submersible Data Logger is a rugged, self-powered remote data logging system specifically designed for offshore use without fear of accidental flooding. The system is configured with two sensor ports for connection to industry-standard digital interfaces including RS-485, RS-232 and SDI-12. Additional sensor inputs are available through the use of port splitters and adapters. All connections are made using MCIL/ MCBH wet-mate connectors, and the built-in sensor library automatically facilitates setup and configuration. Sensor data is recorded on common or independent schedules.

Unlike many data loggers, the **X2-SDLMC** is truly submersible. The housing and battery compartment are completely sealed and waterproof. Internal circuit boards and communication modules are shock mounted, and all access ports incorporate redundant sealing. The **X2-SDLMC** withstands extreme wave action, floods, periodic & long-term deployment underwater, and more. When fitted for wireless remote communication, the cellular and satellite antennas are also waterproof.

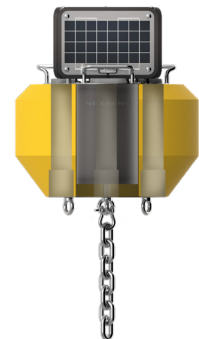
The **X2-SDLMC** can be powered by internal SLA battery or external 5-16 VDC power. The internal SLA battery is intended for use with the **CB-25** data buoy for continuous power via solar charging. Common sensor connections include multi-parameter sondes, water quality sensors, temperature strings, Doppler velocity meters, water level sensors, and weather stations. Optional integrated cellular or satellite telemetry modules offer real-time remote communications via the **WQData LIVE** web datacenter. There, data is presented on a fully-featured and easy-to-use dashboard. Other features include automated reports, alarms, push notifications and much more.

# X2-SDLMC

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### specifications

Material	Housing: PVC; Connectors: Type 316 SS, neoprene; Pressure valve: Anodized aluminum
Weight	5.0 lbs. without batteries; 8.3 lbs. with SLA battery pack
Dimensions	5.5" (13.97 cm) diameter; 15.0" height (38.10 cm)
Power Requirements	5-16 VDC $\pm$ 10% (Reverse polarity protected)
Current Draw (Typical @ 12VDC)	Low power sleep: 350uA; Active: 35mA; Cellular transmitting: 300mA; Iridium satellite transmitting: 170mA
Peak Current	Power supply must be able to sustain a 500mA 1-second peak current (@ 12V)
Operating Temperature	-20 to 70°C
Rating	100m depth rating (standalone); 10m depth rating (with telemetry)
User Interface	CONNECT Software via USB adapter or WQData LIVE Web Datacenter via cellular or Iridium satellite connection
Data Logging	256MB microSD card (expandable up to 32GB)
Data Processing	Parameter level polynomial equation adjustment; Basic & burst averaging (min, max, standard deviation, and raw data available)
Real Time Clock (RTC)	<30sec/month drift <sup>1</sup> ; Auto-sync weekly <sup>2</sup> ; Internal backup battery
Log Interval	User configurable from 1 minute (10 minute default) <sup>3</sup> ; Unique interval per sensor
Transmission Trigger	Time-based; Selective parameter upload option
Sensor Interfaces	SDI-12, RS-232 (2 channels), RS-485
Sensor Power	(2) 12V regulated switch channels with 1.5A capacity <sup>4,5</sup>
Built-in Sensors	Temperature (-40 to 85°C, 0.1°C resolution, $\pm$ 3°C accuracy); Humidity (0-100%, 0.1% resolution, $\pm$ 4% accuracy from 5-95% RH & -20 to 70°C); Battery voltage
Sensor Ports	(2) MCBH-8-MP for sensor interface (RS-232, RS-485, SDI-12, 5V, 12V, GND)
Power Port	(1) MCBH-6-FS for power and communication (12V Solar In, Power Switch, RS-485 Host, GND)
Telemetry Options	Cellular, Iridium Satellite
Antenna Port	N-style



<sup>1</sup> Assumes 25°C operating temperature

<sup>2</sup> Requires the X2-SDLMC to be connected to the internet

<sup>3</sup> Minimum log interval dependent on sensor limitations and processing time

<sup>4</sup> Cumulative concurrent current limit of all three channels is 2A

<sup>5</sup> Logger power supply must be able to support current requirements of sensors

### parts list

Part #	Description
X2-SDLMC	X2-SDLMC submersible data logger
X2-SDLMC-C-2G3G	X2-SDLMC submersible data logger with 2G/3G cellular telemetry
X2-SDLMC-C-NA4G	X2-SDLMC submersible data logger with North American 4G LTE cellular telemetry
X2-SDLMC-C-CATM	X2-SDLMC submersible data logger with CAT-M1/NB2 LTE cellular telemetry
X2-SDLMC-I	X2-SDLMC submersible data logger with Iridium satellite telemetry
CB-25	CB-25 data buoy for use with X2-SDLMC & X2-SVS data loggers, 25 lb. buoyancy
MCIL6MP-USB-DC	Direct connect USB PC cable with external 12VDC power leads, X2-SDLMC & X2-SVS



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