

Multilog LX2

Versatile Data Logger

Multilog LX2 is the highly versatile, battery powered telemetry data logger incorporating a convenient serial input that supports compatibility with a wide variety of sensors and meters, including Modbus.

A powerful, fast logging solution, Multilog LX2 delivers effective data recording and efficient transmission.



Key Features and Benefits

- **Pulse interval timing:** smooths reading set times of infrequent pulses e.g. minimum night flow
- **Versatile logging:** up to 2 x digital flow inputs and 1 x analogue input (internal pressure, external pressure or 4-20mA)
- **Telemetry:** NBLoT LTE-based cellular communication standard with fallback 2G capability
- **Flexible:** up to 25Hz and window logging (on request)
- **Fast logging:** logging to 1 second - as standard
- **Multiple recordings:** can record mixture of minimum, maximum, average or spot values in each sample interval
- **Detailed readings:** true max and min flow and investigation of pressure spikes through Pseudo logging
- **Serial input:** for connection to digital meters, SonicSens level sensor, Permalog+ leak noise logger and Modbus sensors
- **Long-term monitoring:** 5 year battery life (depending on settings and signal strength)
- **External antennas:** support improved signal strength (contact HWM for more information)
- **Fully waterproof:** the IP68 rating has been tested at 10m depth over a 24 hour period
- **Alarms:** real-time alarms can be enabled for immediate response to network incidents

Applications

Designed to fit inside very shallow Atplas box installations, the logger is ideal for many applications, including monitoring flow and/or pressure in a district or zone to assess demand, leakage and pressure conformance.

Multilog LX2 transmits data through an integral modem with GPRS/2G, 4G, LTE-M (Cat-1) and other NBLoT cellular options available.

The logger utilises the latest advances in cellular telemetry technology to provide rapid transmission, enabling data to be retrieved more frequently for analysis and response.

Additional power can be delivered to Multilog LX2 via connectivity to external battery packs or mains power.

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Input Options

Digital	One bi-directional pulse for Flow. Two single-directional pulse inputs for Flow logging. Up to 64 pulses per second
Analogue	Internal Pressure Transducer. External pressure. 4-20mA (optional). 0-20 bar / 0-200 meters head / 0-300psig, 0.1% repeatability / please note that the logger is calibrated to 10 bar as standard. (20 bar calibration must be specified at time of order if required). (0-10 bar / 0-100 meters head / 0-150 psig option also available)
Serial Input	Proprietary serial interface for SonicSens ultrasonic level monitors, Permalog+ leak noise loggers, Serial meters etc. Modbus for third-party devices

Communication

Local	Infra-red reading head for connection to laptop, desktop PC or Windows tablet
Internal Cellular Modem	Cellular modem supporting 2G/3G/NB-IoT/LTE-M (Cat-1) with SMS backup where available - contact HWM for available options
Accelerated dial-in	Dial-in rate is increased if alarm situation is triggered. Logger can accelerate dial-in at alarm level for multiple applications - including SonicSens, Flow, Pressure and other alarmed sensors

Features

Frequency	Variable logger sample rate from 1s to 24hrs (this may affect battery life and communication costs)
Logger/Site ID	7 alphanumeric characters. Readable factory set serial number in firmware
Dimensions	H = 110mm, W = 150mm, D = 105mm (4.3" x 5.9" x 4.1")
Construction	PC/ABS plastic enclosure
Weight	590g (1.3lb)
Operating Temp.	-20 to +60°C (-5 to +140°F)
Ingress Protection	IP68 submersible
Power	Typical 5 years (depending on settings and signal condition). External power connection for battery box and third-party devices
Memory	Primary recording: 1 million readings (non-volatile memory)
Fast Logging (secondary channel)	Secondary, fast channel supports sampling up to 25 Hz and record average, minimum, maximum, standard deviation or time interval between pulses (for data smoothing)
Pulse Interval Timing	Count and Event logging modes independent for both recordings. Pulse Interval Timing helps to smooth readings (e.g. leakage) in low flows by counting the time between each pulse (event mode). This is available in addition to totalling the pulses (count mode)
Alarms	Multiple alarm options including Rate of Change, Profile, Minimum Night Flow and Threshold. 16 alarms per logger. Can be programmed to auto dial up to 8 telephone numbers on alarm. Over 16 alarms per logger depending on channel configuration



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HWM Water Limited

Ty Coch House
Llantarnam Park Way
Cwmbran
NP44 3AW
United Kingdom

Tel: +44 (0) 1633 489 479
Fax: +44 (0) 1633 877 857
Email: sales@hwm-water.com
Web: www.hwmglobal.com

MONITORING ASSETS, DELIVERING DATA, BRINGING CONTROL