

# MultiLog LX

*Versatile Data Logger with  
integral SMS/GPRS telemetry*

MultiLog LX is a highly versatile battery powered data logger with remote SMS/GPRS telemetry. 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; logging key customers. The logger utilises the latest advances in GPRS technology to provide rapid transmission at low cost, enabling data to be retrieved more frequently for analysis and response.

## Multiple Input Options

In addition to digital (flow) and analogue (pressure, 4-20ma) inputs, a convenient serial input enables the LX to be connected easily to a wide range of sensors and meters, including the SonicSens ultrasonic level sensor, Permalog+ leak noise loggers and Modbus compatible sensors and meters.

## Remote Data Viewing

Data can be transmitted to a customer specific FTP site or modem, or sent to HWM's secure DataGate web based portal from which it can be viewed on any internet enabled device via the HWM Online website. Data can also be downloaded locally via a convenient Infra-Red interface.

## Remote Programming / Firmware Upgrades

This environmentally friendly option helps reduce the LX's carbon footprint by removing the need for expensive and time consuming site visits. It also ensures that the logger can always be updated quickly and efficiently.

## Accelerated Dial in On Alarm

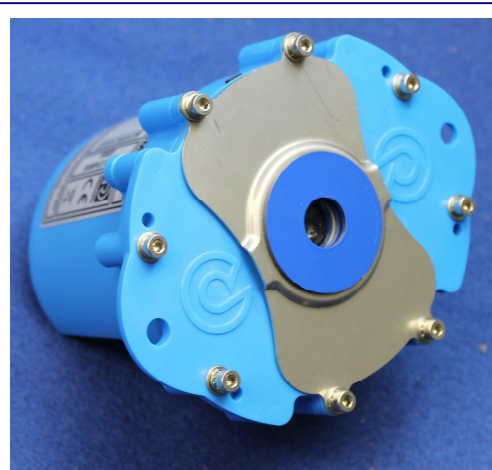
When an alarm is triggered, the logger can be programmed to automatically accelerate its scheduled transmission time to improve visibility and assist investigation. This is particularly useful when the LX is monitoring rising water levels (SonicSens) or when investigating network events.

## Innovative Secondary Channel

This enables additional fast logging down to one second intervals, and is invaluable when a detailed investigation is required, such as pressure spikes and 'true' minimum night flow. The max/min of these values is stored (pseudo channel) and can be transmitted as a standard telemetry feature. The standard logging continues alongside the secondary channel logging for general reporting purposes.

## Long Battery Life

Replaceable internal batteries can power the logger for over five years when data is transmitted every eight hours. A range of low cost external battery packs are available which maintains the five year battery life when sending data every hour, 30 minutes or 15 minutes.



## KEY FEATURES

- Frequent transmission at low cost.
- Up to 2 x digital flow inputs and 1 x analogue input (internal pressure, external pressure or 4-20ma). Plus a serial input for connection to digital meter, SonicSens level sensor, P+ leak noise logger and Modbus sensors etc
- Pulse Interval Timing – smooths reading set times of infrequent pulses, e.g. minimum night flow.
- External antenna to optimise signal.
- Variable dial-in options.
- Fast logging 'secondary channel' for logging to 1 second – as standard.
- Pseudo channel for true max and min flow and investigation of pressure spikes – as standard.
- Five year battery life
- Fully sealed & submersible



Screen shot of data viewed on HWM Online

# MultiLog LX

Sensor Input Options	1 x Analogue	Internal Pressure Transducer. External pressure. 4-20 ma (optional). 0-20 bar / 0-200 metres head / 0-300 psig, 0.1% repeatability / 0.1% accuracy (optional) Please note that the logger is calibrated to 10bar as standard. 20bar calibration must be specified at time of order if required.
	2 x Digital	One bi-directional pulse input for Flow. Two single-directional pulse inputs for Flow logging. Up to 64 pulses per second.
	Serial Input	RS232 (proprietary) for SonicSens ultrasonic level monitors, Permalog+ leak noise loggers, Serial meters etc. Modbus for third party devices.
Logger Features	Memory	Primary recording 179,760 readings. Can be programmed to read continuously (cyclic mode) or for a specific period of time (block).
	Frequency	Variable sample rate 1 to 59 mins, then 1 to 24hrs (please note that this may affect battery life and communications cost).
	Alarms	Multiple alarm options including Rate of Change, Profile, Minimum Night Flow and Threshold. 16 Alarms per logger. Each alarm out comment field 16 characters. Can be programmed to auto dial up to 16 telephone numbers on alarm (i.e. 1 per alarm).
	Secondary Channel	Can be programmed to record either fast data, average minimum, average maximum or time interval between pulses (for data smoothing).
	Logger/Site ID	Up to 7 alphanumeric characters. Also readable factory set serial number in firmware.
Communication	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).
	Local	Infra-Red reading head for connection to PDA hand held programming and data collection unit, laptop, or desktop PC.
	Internal Cellular modem	GPRS to HWM DataGate or customer specific FTP. SMS Back Up* SMS to HWM DataGate or customer modem. Multiple messages per day. Quad band modem supplying 850/900/1800/1900MHz bands. GPRS can send data down to every 15 mins, with appropriate battery pack
Construction	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.
	Dimensions / Weight	Tough ABS plastic enclosure 110H (130H with int pressure sensor) x 150W x 105D mm. Weight 590 grams (1.3lb)
	Operating Temp	-20 to +70°C (-5 to +160°F)
	Ingress protection	IP68 submersible
	Power	Lithium Thionyl-Chloride cell operational for 5 years under standard operating conditions *, complete with low battery alarm

*\* Typical battery life expectancy is based upon achieving network registration regularly and with ease. If the GPRS-enabled network registration is unachievable, the GPRS logger will convert to SMS-only operation after 24 hours and will attempt to re-establish GPRS communication when possible. A signal strength test should be performed during installation.*

## LX Ordering Matrix

