CLEAN WATER

LX2

New Telemetry Data Logger with Upgraded Features

HWM

Key Features

- ✓ 3G option available
- ✓ Frequent transmission at low cost.
- ✓ Up to 6 x digital flow inputs and 1 x analogue input (internal pressure, external pressure or 4-20ma)
- ✓ Serial input for connection to digital meter, SonicSens level sensor, P+ leak noise logger and Modbus sensors etc
- ✓ External or internal antenna options to optimise signal.
- ✓ Variable dial-in options.
- ✓ Fully sealed & submersible

- ✓ Pulse Interval Timing – smooths reading set times of infrequent pulses e.g. minimum night flow.
- ✓ Fast logging for logging to 1 second – as standard.
- ✓ Optional 25MHz & window logging
- ✓ Five year battery life
- ✓ Can record mixture of min, max, average or spot values in each sample interval
- ✓ True max and min flow and investigation of pressure spikes as standard
- ✓ WITS Options
- ✓ GPS Location option

Overview

LX2 upgrades the highly versatile battery powered telemetry data logger with remote SMS/GPRS telemetry. Benefitting from the new 'unilog' platform and processing capability the LX2 adds many new features to its market leading predecessor 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 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

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.

Fast Logging

LX2's innovative secondary channel feature enables additional fast logging down to one second intervals (with option for 25MHz). This is invaluable when more detailed investigation is required, such as pressure spikes and 'true' minimum night flow. Previously, fast logging could only be used as a manual direct download but lower GPRS data transfer rates have enabled HWM to make this a telemetry feature. The standard logging continues alongside the fast channel logging for general reporting purposes. Fast logging can also be specifically time window 'start stop' under the optional logging function.

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.

Remote Programming and Firmware Upgrade.

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 / 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	Proprietary serial interface for SonicSens ultrasonic level monitors, Permalog+ leak noise loggers, Serial meters etc. Modbus for third party devices.
Logger Features	Memory	Primary recording 500,000 readings
	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).
	Fast Logging	Can be programmed to record either fast data, average minimum, average maximum or time interval between pulses (for data smoothing). Standard to 1 second. Optional 25MHz and window stop/start.
	Logger/Site ID	Up to 7 alphanumeric characters. Also readable factory set serial number in firmware.
	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).
Communication	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 server. 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 3G Compatible modem supporting 850 900 AWS 1700,1900,2100
	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.
Construction	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. External power connection for battery box & 3rd party devices.