

The Senator+ satellite system from HWM is the latest development for collecting data from remote locations where there is no PSTN/GSM coverage.

It features a multi-channel data logger which can be supplied with up to nine inputs for monitoring up to 4 digital, 4 analogue and 1 serial signal.

Senator+ is ideal for use in remote locations without mains electrical power or mobile phone coverage, where multiple channel logging is required.

The logger is completely waterproof, submersible and battery powered and will require no maintenance for at least five years.

The system features a solar panel which enables the satellite modem to transmit data without the need for regular site visits. The logger also has user programmable alarm systems and interfaces with powerful Radwin software to provide detailed analysis.

Typical Applications

Reservoirs/ Treatment Works/ Pumping Stations

Ideal for monitoring flow, pressure, level and or water quality parameters to assess performance of remote assets.

Open Channel Flow or Level Monitoring

When used with SonicSens the system can monitor liquid level in rivers and open channels, including many overflow applications.

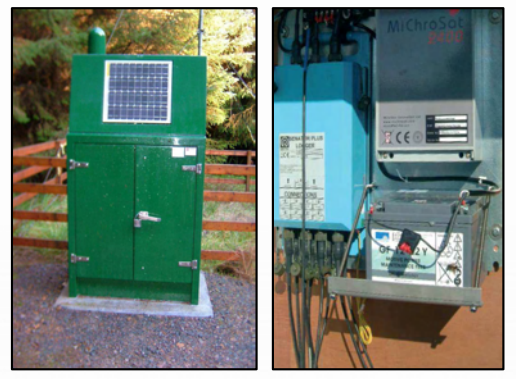
Senator+

*Nine Channel Data Logger
with Satellite Modem*



KEY BENEFITS

- Nine Channel Logger with:
 - 4 off analogue channels
 - 4 off digital channels
 - 1 off sonic sense channel (serial)
- Rechargeable battery system using a Solar Panel
- Satellite Modem for Data Communication
- Memory capacity 48,000 reading (shared between channels)
- Programmable alarms.



A HALMA COMPANY

Halma Water Management

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

Tel: +44 (0) 1633 489479 Fax: +44 (0) 1633 877857

Email: sales@hwm-water.com www.hwm-water.com





Halma Water Management

• FLOW MEASUREMENT • DATA LOGGING • LEAK DETECTION • PRESSURE CONTROL • ENVIRONMENTAL MONITORING • AMR • ENERGY MANAGEMENT

Sensor Input	Digital	Uni- or bi-directional pulse. Instrument powered or non-powered sensors eg PD100.
	Analogue	Internal Pressure Transducer
		0-20 bar / 0-200 metres head / 0-300 psig, repeatability $\pm 0.1\%$.
		External Pressure Transducer (volt) or Transmitter (mA)
		0-20 bar / 0-200 metres head / 0-300 psig, repeatability $\pm 0.1\%$
		4-20mA from isolated sensor
		0-1v, 1-5v, or 0-100mVolt
Logging Features	Memory	Recording 48,000 readings (shared between channels).
		Can be programmed to read continuously (cyclic mode) or for a specific period of time (block).
	Frequency	Sample rate 1 second to 1 day.
	Alarms	Minimum or maximum duration-triggered threshold alarm per channel. 16 Alarms per logger. Each alarm out comment field 16 characters. Can be programmed to auto dial up to 16 telephone numbers on alarm with telemetry option (ie 1 per alarm).
	Logger ID	Up to 8 alphanumeric characters.
		Also readable factory set serial number in firmware
	Site ID	Up to 127 alphanumeric characters.
Clock	On board 24 hour real time clock with date facility.	
Secondary Channel	Can be programmed to record either fast data, average minimum, average maximum or time interval between pulses (for data smoothing).	
Logging Modes.	Count and Event logging modes independent for both recordings.	
Communication	Serial	RS232 by MIL connector for connection laptop PC or desktop PC.
Physical	Dimensions	250H x 175W x 90D mm (9.9"H x 6.9"W x 3.5"D)
	Construction	Die-cast aluminium enclosure, powdercoat spray painted
	Weight	5 Kg (11.0 lb)
	Operating Temp	-20 to +70°C (-5 to +160°F)
	Ingress protection	IP68 submersible
	Power	Rechargeable

A HALMA COMPANY

HWM reserves the right to change any product specification without prior notice