

SonicSens



KEY BENEFITS

- Five year battery life at 2 minute sample rate.
- Intelligent sensor with self diagnostic and alarm out on echo loss.
- Comms via GSM, SMS, GPRS, radio and satellite.
- Daisy chaining up to 16 sensors can achieve distances over 3.2Km before final data transmission.
- ATEX zone 0 explosive atmospheres.
- Variable dead band or blanking distance.
- Adjustable range.
- AIR Automatic Interference Rejection (Rate of Change).
- Echo Loss Alarm.



Ultrasonic Level Sensing

HWM's ultrasonic level or flow sensor, SonicSens is ideal for remote water level monitoring applications. The sensor's very low power consumption enables it to be used in battery powered applications with a 5 year battery life, reducing the need for expensive site visits.

The system is available in four different configurations to suit varying installation requirements and networking preferences. It can be non-ATEX cable linked, ATEX cable linked with a Barrier box, ATEX radio linked to the logger outside the ATEX zone, or the sensor, logger and cable all ATEX rated with total protection for completely below-ground installations.

The ultrasonic sensor connects to a MultiLog data logger supplied with local or telemetry communications. Standard telephone line (PSTN) or cellular (GSM/GPRS) versions can be configured to provide data and alarms to an office PC or mobile phone/pager for investigation and action.

Typical Applications

Open Channel Flow or Level Monitoring

The non contacting ultrasonic sensor is ideal for monitoring liquid level in rivers and open channels, including many overflow applications.

Combined Sewer Overflow Monitoring

CSO overflow monitoring is required by European legislation. Intrinsically Safe systems are available for CSO monitoring applications and other Hazardous Areas with the risk of inflammable gases.

Tank Level Monitoring

The ultrasonic sensor can be easily mounted to monitor liquid tank level. The cellular telemetry version can be monitored from the office and easily relocated to another site for survey type applications.

Control Systems

The ultrasonic sensor can be used to control other process plant upstream at great distances using a standard telephone line or cellular phone networks.

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Ultrasonic Level Sensing

Ultrasonic Sensor	Ultrasonic Measurement	Measurement Range: 300mm to 2.5m or 800mm to 5m. For higher ranges, please enquire to your HWM representative.
		Resolution 1 mm (1/25"). Built in temperature compensation
		Accuracy in air 0.25% of target range
		Beam Angle 10 deg at -3dB boundary
		Ultrasonic echo processing.
		Operating temperature -20 to +60°C (-5 to +140 °F)
	Average power consumption 100 micro Amps at 5 minute sample rate	
	Sensor Physical	Box Size: 140L x 80W x 67D mm (5.5"L x 3.1"W x 2.6"Deep)
		Potted ABS plastic enclosure, IP68
		Aluminium adjustable bracket 170 to 210mm (sensor to side mount)
Sensor weight, incl bracket: 1.3 Kg (2.8 lb)		
Serial communications and power from MultiLog logger via single cable fitted with 4 pin Military connector		
Logging Features	Memory	Primary recording 48,720 readings (MultiLog). (memory expandable to 245,280 readings on request) Can read continuously (cyclic mode) or period of time (block).
	Sampling Rate	1 – 59 minutes, 1 – 24 hours
	Alarms	Level exceedance Alarms. Each alarm out comment field 16 characters.
		Up to 16 alarm out telephone numbers
	Logger ID	Up to 8 alphanumeric characters
	Site ID	Up to 127 alphanumeric characters.
Clock	On board 24 hour real time clock with date facility.	
Communications	Serial to PC	RS232 by MIL connector for connection to laptop PC, desktop PC. Programmable up to 19,200 Baud.
	PSTN Modem	2,400 Baud Optional PSTN land line internal modem (optional)
	Cellular GSM	9,600 Baud 2-way Cellular GSM internal modem (optional)

**USER
FRIENDLY
DESIGN**

**GSM &
SMS DATA
LOGGING**

**5 YEAR
BATTERY
LIFE**

**HIGHLY
ACCURATE**