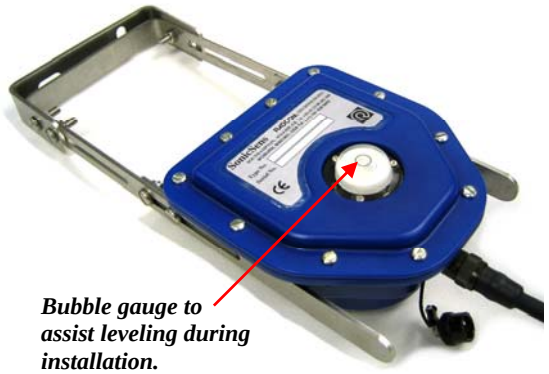
SonicSens™

INTRODUCTION

Radcom's ultrasonic level 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.

The ultrasonic sensor is powered from batteries within a SonicSens™ sensor, and the system, which is now 'Intrinsically Safe' can be supplied with Local or Telemetry communications.

Standard Telephone Line (PSTN) or cellular GSM communications versions can be configured to provide data and alarms to office PC or mobile phone / pager for investigation and action.



Bubble gauge to assist leveling during installation.

SonicSens™ ultrasonic sensor powered from internal battery, shown with a MultiLogPlus™ data logger offering full two way GSM telemetry.

TYPICAL APPLICATIONS

CSO (Combined Sewer Overflow)/SSO (Sanitary Sewer Overflow) Monitoring

This non-contacting ultrasonic Probe is ideal for monitoring storm water overflow, sewerage flow or clean water applications in open channels.

Tank Level Monitoring

The ultrasonic Probe 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 Probe can be used to control other processes at an upstream plant at great distances using the Standard Telephone Line or cellular telephone networks.

ADVANCED DESIGN

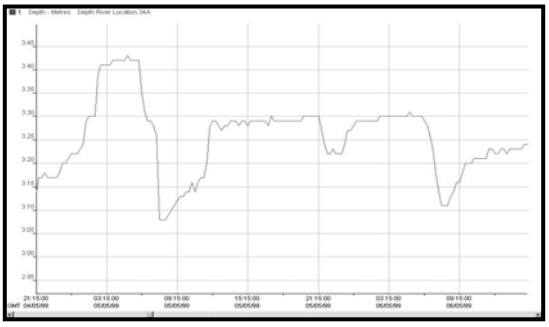
The combination of Radcom's versatile data logging and communications systems with low power ultrasonic sensor technology provides a powerful solution for remote sites.

Ultrasonic level measurements can be sampled at, for example 1 minute intervals to a resolution of 0.04 inches over at least 7.4 Ft.

The logger can alarm out in the event of exceeding preset limits.

The ultrasonic sensor is potted within a plastic housing making it IP68 (fully submersible) and suitable for either clean water or contaminated fluid applications.

The SonicSens™ ultrasonic sensor contains no batteries and requires no maintenance or adjustments. Communications and power are supplied via a single cable connected to a MultiLogPlus™ serial port.



Typical RadLog display showing level monitoring

All of Radcom's Data Loggers and controllers are compatible with Radlog for Windows™, the industry-standard for data trending, reporting, analysis and archiving. Radlog software has links to GIS systems, if applicable, for simplified data access and a mapped representation of alarms.

Ultra Sonic Level Sensing TECHNICAL SPECIFICATION

Ultrasonic Probe	**Ultrasonic Measurement**	Measurement Range: 300mm to 1 metre (11.8" to 3.28 ft) 1 metre to 2.25 metre's (3.28 to 7.4 ft) Other variants offer a range up to 8 metres (26.25 ft)
		Resolution 1 mm (0.040"). Built in temperature compensation
		Accuracy in air 0.25% of target range.
		Beam Angle 10 deg at -3dB boundary Sonic intelligence 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	Serial communications and power from MultiLogPlus™ logger via single cable fitted with 4 pin Military connector
		Box Size: 152L x 148W x 80D mm (6"L x 5.8"W x 3.2"Deep) Potted ABS plastic enclosure, IP68 (fully submersible)
		Stainless Steel adjustable bracket
		Sensor weight, incl bracket: 1.3 Kg (2.8 lb)
	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**	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	9600 Baud 2-way Cellular GSM internal modem (optional)
Logger Physical	**Dimensions**	250mm (10") H x 175mm (5") W x 90mm (3.5") D MultiLogPlus™ GSM
	Construction	Die-cast aluminum enclosure, powder coat spray painted
	Weight	4.5 Kg (9.9 lbs) MultiLogPlus™ GSM
	Operating temperature	-20 to +70°C (-5 to +160°F)
	Ingress protection	Logger IP68 (fully submersible)
	Power	Lithium-ion cell operational for 5 years under normal operation.

R	A	U	R	0	1	/	0	2	/	0	2

SonicSens™ sensor

01 = Depth sensor

01 = 4-20mA Output
02 = Serial Output

01 = 300mm to 1 Metre (11.8" to 3.28 ft) range
02 = 500mm to 2.25 Metre (3.28 to 7.4 ft) range

R	D	L	6	0	6	1	L	/	S	/	

MultiLogPlus™ logger

RCI = GSM 1 way comms
RCI 2 = GSM 2 way 4 hr Time Window

Liston Utility Services
19 Mauriello Drive – Stoneham, MA 02180.
Tel: (781) 635-7711 - Fax: (781) 435-1480
*e-mail: jim@listonutilityservices.com - **http://wwwlistonutilityservices.com***