

RiverGage



- *Non-contact level measurement*
- *±0.01 ft. water level accuracy*
- *Sensor will not drift over time*
- *IP-67 waterproof sensor housing*
- *Standalone or cellular telemetry*

The NexSens **RiverGage** is a bridge-mount water level measurement system based on cutting edge radar sensing technology and reliable data logging. This downward looking system provides quick and easy (on-bridge) installation with no need to enter the water. The radar level sensor is ideal for monitoring in remote areas and applications where conventional level measurement systems are not suitable. Eight D-cell alkaline batteries power the system for months or an optional solar pack is available for continuous, long-term operation.

A sampling rate of 16 Hz (16 measurements/second) with 20 second averaging minimizes effects of water surface conditions, such as waves and turbulence. The **RiverGage** sensor is unaffected by air temperature, wave action, humidity, flood events, floating debris, or contaminated water. This highly accurate radar sensing technology meets USGS guidelines for water level detection and will not drift over time. Discharge (flow) is calculated based on manually-entered stage/discharge rating data.

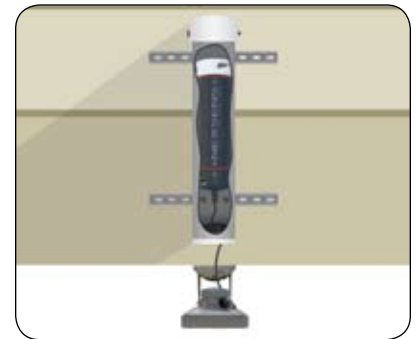
The RG500 **RiverGage** system consists of a NexSens **SDL500** Submersible Data Logger, OTT RLS Radar Level Sensor, and 10m sensor interface cable. The RG500C real-time cellular telemetry system also incorporates a built-in modem and high gain antenna. The real-time system can be configured for any of the major cellular networks, including Verizon, AT&T, or Sprint Nextel. NexSens **iChart** Software is a Windows-based program for interfacing both locally (direct-connect) and remotely (through telemetry) to a **RiverGage** system or network of systems.

RiverGage

radar level system

specifications

Sensor Technology	Radar
Transmitting Frequency	24 GHz Pulse Radar
Beam Width	12 degrees
Measuring Range	2.6 to 115 ft. (0.8 to 35m)
Resolution	0.01 ft. (0.001m)
Accuracy	2.6 to 4.9 ft: ± 0.03 ft; 4.9 to 98.4 ft: ± 0.01 ft; 98.4 to 115 ft: ± 0.03 ft
Internal Memory	2 MB Flash memory, over 500,000 data points minimum
Power	(8) D-Cell alkaline batteries or external 12VDC power
Additional Sensor Ports	(3) Digital, (1) Analog
Operating Temperature	-40 to 140°F (-40 to 60°C)
Storage Temperature	-40 to 185°F (-40 to 85°C)
Relative Humidity	0-100% (non-condensing)
Ingress Protection	IP-67
Cellular Modem Frequency Range	Quad-Band: 800/900/1800/1900 MHz
Cellular Modem Technologies	GSM/GPRS/EDGE, CDMA, iDEN
Supported Cellular Providers	Verizon, AT&T, Sprint Nextel
Contents	(1) NexSens SDL500 data logger (1) UW-FL10 flying lead cable, 10m (1) OTT RLS radar level sensor (1) Set of radar level sensor mounting hardware



parts list

Part #	Description
RG500	RiverGage non-contact level measurement system
RG500C	RiverGage non-contact level measurement system with cellular modem telemetry
1001	iChart Software for Windows-based computers



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