



# RADAR LEVEL RECORDER



- High Accuracy  
- 0.01 ft
- Range - 60 ft
- Integrated  
or Separate  
Antenna
- Redundant/  
Back-Up Data



## DESCRIPTION

A PRECISION water level measuring instrument using radar pulses to measure levels without direct contact with water, the RLR can be located on a bridge, pier or any structure over the water's surface.

Unlike Radar Level Sensors, Sutron's *Radar Level Recorder is a logging sensor - recording data at user-selected intervals.* Its 6-button, 2-line LCD front panel allows easy access to set-up, data and adjustments. Laptop, desktop, and pocket PCs can retrieve data downloads via an RLR command line.

## SPECIAL FEATURES

- Special pulse-echo technique that provides 0.001 FT RESOLUTION & 0.01 FT ACCURACY
- NOT AFFECTED BY AIR TEMPERATURE & HUMIDITY, common problems with ultrasonic-type sensors
- BUILT-IN DISPLAY for viewing data during installation (RLR-0001-1 only)
- >300,000 readings DATA RECORDING MEMORY
- SDI-12 & RS232 interfaces
- Powerful data processing modes including NOAA DQAP & moving average
- Diagnostic features include recording of signal strength and standard deviation.
- Integrated antenna
- Operates as stand-alone station or with other DCP
- Connects to a SatLink2 Transmitter/Logger for SATELLITE COMMUNICATIONS or a CELL MODEM.

## ORDERING

- RLR-0001-1** Radar Level Recorder (w/10 ft SDI cable)  
*Do not install the RLR-0001-1 outdoors unless it is inside an outdoor enclosure such as #6661-1265-2.*
- 6661-1265-2** Optional Outdoor NEMA-4 Enclosure for RLR-0001-1.  
Order separately.
- RLR-0003-1** RLR, no display, with 25 foot cable

## SPECIFICATIONS

|                    |  |
|--------------------|--|
| RADAR TYPE         | 6.2 GHz pulse echo   |
| BEAMWIDTH          | ±16° HPBW  |
| RANGE              | 60 feet (18.3 meters)  |
| ACCURACY           | 0.01 ft (3mm) up to 20 ft; 0.05% above 20 ft   |
| RESOLUTION         | 0.001 ft   |
| CLOCK              | Internal real-time clock w/battery backup<br>±2 minutes a month (0 to +50C).   |
| LOG INTERVALS      | User selectable  |
| SAMPLING RATE      | 10 Hz  |
| AVG. INTERVALS     | User selectable  |
| LOG CAPACITY       | >300,000 Readings Flash Memory for Data & Events (see Features)  |
| OPERATOR INTERFACE | 1. 6-button front panel w/2-line display & status lights. (RLR-0001-1 only)<br>2. SDI-12<br>3. Command line via RS-232                                     |
| DATA DOWNLOADS     | Laptop, desktop, pocket PC via command line  |
| PASSWORD           | Required password option for setup changes & stage adjustments   |
| SETUP DATA         | Setup stored in non-volatile flash memory  |
| STATUS LIGHTS      | Two on front panel – provide "heartbeat" and run/error status (RLR-0001-1 only)  |
| ENCLOSURE          | NEMA rated enclosure – resists dripping water and spray<br>RLR-0001-1 is not suitable for outdoor installation without appropriate enclosure.              |
| TEMPERATURE        | -40 to +60 °C (LCD operates -10° C)  |
| DATA CONNECTION    | RS 232 DB9 (female) for direct connection to PC/PDA/cell modem<br>Provides +5V on pin 9 w/capacity of 71 mA to power external devices, ie, BlueTooth, etc. |
| POWER CONSUMPTION  | <0.25 mA @ 12 VDC standby<br><15 mA @ 12 VDC active  |

*Specifications subject to change without notice*



# RADAR LEVEL RECORDER

## SUTRON FOR INFO & PRICING PLEASE CALL.

Sales Admin. & Ordering  
Sterling, VA  
(703)406-2800, ext. 217  
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Tide Stations & Special Projects  
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GOES Satellite Services  
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Airport Weather Systems  
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Hydrological Services  
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Hydrological/Hydraulic,  
Environmental Science  
West Palm Beach, FL  
Tel: (561) 697-8151  
Email: skone@sutron.com



**RLR-0001-1**

Radar Level Recorder including  
Integrated Antenna (w/10 ft SDI  
cable)

*Do not install the RLR-0001-1 outdoors unless it is  
inside an outdoor enclosure such as #6661-1265-2.*



**RLR-0003-1**

Radar Level Recorder no display,  
with integrated antenna & 25 foot  
cable



## ISO 9001

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