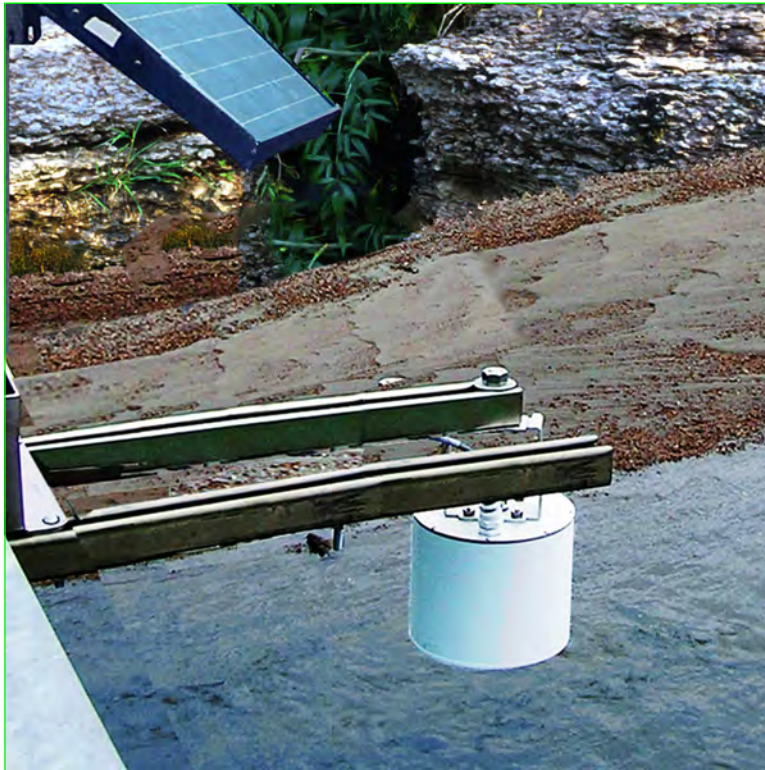


Radar Level Recorder

RLR-0001-1, RLR-0003-1

**NEW
FCC
Version**



Description

Sutron's Radar Level Gauge/Recorders are self-contained, precision devices for measuring stages (water level) without direct contact with the water surface. The Radar Level Recorder is ideally suited for making measurements in rivers, streams, reservoirs, tidal, oceans and industrial areas where the sensor can be located above the water surface. Using a special pulse-echo measurement technique, the radar has a range of 60 ft.

Sutron offers both FCC and NTIA versions of the Radar. The FCC versions are available for any commercial or government agency in need of the device. This version has an FCC ID and is available for installation anywhere it is needed as an FCC part 15 device. The NTIA version is available only to US government agencies and for use outside the US. US government agencies who need to use this version must have it approved for operation by their own frequency coordinators. Both radars offer similar performance; however, the NTIA version does have increased signal to noise for quicker measurements and better performance with rough water.

The Radar comes in several different models. The RLR-0001-1 (NTIA only) combines into a single package radar, antenna, keypad, display, permanent log, SDI-12 interface, RS232 interface. The RLR-0001-1 is packaged in a sealed enclosure. However, the enclosure is not rugged enough to be installed outdoors without additional protection.

- ▶ **High Accuracy - 0.01 ft**
- ▶ **Range - 60 ft**
- ▶ **Integrated Antenna**

Special Features

- ▶ Special pulse-echo technique that provides 0.001 ft resolution & 0.01 ft accuracy
- ▶ Not affected by air temperature & humidity
- ▶ 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 averaging & NOAA DQAP
- ▶ 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 & IridiumLink for satellite communications & GPRSLink & CDMA Link for cell modem communications.

Ordering

RLR-0003-1 REV F	RLR, FCC, no display, 25 foot removable cable
RLR-0003-1 REV H	RLR, NTIA, no display, 25 foot non-removable cable
RLR-0003-1 REV N	RLR, NTIA, no display, 25 foot removable cable
RLR-0001-1*	RLR, NTIA, display, 10 foot SDI-12 cable
*Do not install the RLR-0001-1 outdoors without an enclosure such as the 6661-1265-2	
6661-1265-2	NEMA-4 enclosure for RLR-0001-1. Order separately.

The RLR-0003-1 (FCC and NTIA) is an integrated unit **without** display. The enclosure is rugged and can be installed outdoors without additional protection. All the electronics for the radar are housed in the antenna enclosure. A 25 foot long cable provides both RS232 and SDI-12 interfaces to the radar.



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Radar Level Recorder

RLR-0001-1, RLR-0003-1

**NEW
FCC
Version**

Specifications

RADAR TYPE (NTIA)	6.2 GHz pulse echo
RADAR TYPE (FCC)	6.6 GHz pulse echo FCC ID HDBRLR-0003-1 FCC Standard: Part 15.250
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 ±1 minute 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) 2. SDI-12 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 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 Provides +5V on pin 9 w/capacity of 71 mA to power external devices (select models)
POWER CONSUMPTION	<0.90 mA @ 12 VDC standby, RS232 disconnected <12 mA @ 12 VDC standby, RS232 connected <36-40 mA @ 12 VDC active measurement



RLR-0001-1

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

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
Available FCC & NTIA versions

Specifications subject to change without notice



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