

Solinst® RRL 5 Remote Radio Link Telemetry

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Model 9200



RRL 5 Remote Radio Link

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The Solinst RRL 5 System offers a very simple, compact and inexpensive method of local telemetry. Data is sent from Solinst dataloggers in the field via short-distance radio to your Home Station PC. The RRL 5 is excellent for small, closed-loop

networks such as mine sites, golf courses, and landfill monitoring networks. By using free unlicensed radio bands (ISM), the RRL 5 has the advantage of being lower cost than cellular telemetry systems.

RRL 5 Telemetry Stations



RRL 5 Stations can fit inside a 2" monitoring well for discreet placement. They work with omnidirectional antenna, RF line-of-sight transmission, therefore, they can communicate over distances up to 30 km (20 miles).

RRL 5 Stations have the option of 900 MHz or 2.4 GHz radio modules. They use six replaceable lithium batteries. Up to two Solinst dataloggers can be connected to one RRL 5 (using a Splitter). A built-in barometer provides the option of reporting barometrically compensated Levelogger readings.

The USB-C connection on each RRL 5 is used for diagnostic, firmware updates and programming purposes. It can also be used to connect an external power source.

All RRL 5 Stations use the same hardware, and are programmed using a wizard in Solinst Telemetry Software as a Home Station or Remote Station. RRL 5 Stations are interchangeable as required.

RRL 5 Stations have a non-volatile internal memory to store collected data until the Home Station is successfully contacted.

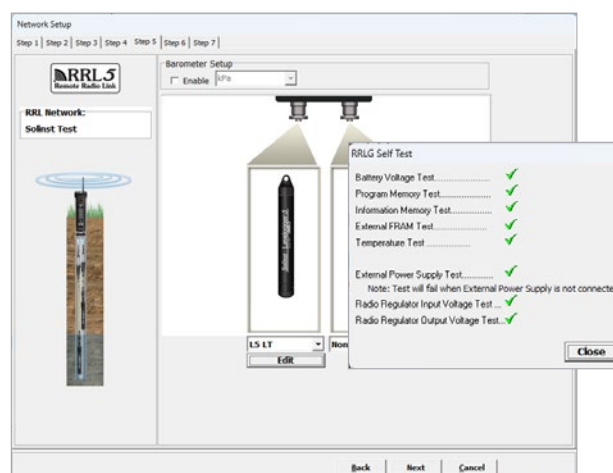
RRL 5 Telemetry Operation

Systems operate on two basic schedules. A sample rate is set, at which an RRL 5 records a real-time reading from each attached datalogger. A report rate is the frequency that the data is sent from an RRL 5 to the Home Station PC. Optionally, dataloggers can be set up to record and store data independently of the RRL.

Reported data is saved in a dynamically updated database on the Home Station PC, and can also be viewed and exported using Solinst Telemetry Software. You have complete control of your data.

Advantages of RRL 5 Telemetry

- No-cost radio transmission
- Compact all-in-one units for discreet installation
- Report barometrically compensated water level data
- Use database to import to your own website or list
- Remotely monitor battery level and status with each report
- Less need to travel to remote/ hazardous locations
- Ideal for small, closed-loop networks



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High Quality Groundwater and Surface Water Monitoring Instrumentation

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Features of RRL 5 Telemetry

- Sized to fit inside a standard 2" well casing
- Internal barometer for automatic water level compensation
- Connection for up to two dataloggers on each device
- Database is automatically updated with each new data report
- Free Solinst Telemetry Software for easy setup, remote updates and data management
- Remote Utility for simple diagnostics

RRL 5 Remote Radio Link Specifications

Communication:	900 MHz or 2.4 GHz radio modules
Communication Distance:	900 MHz: ~ 30 km (20 miles) RF line-of-sight 2.4 GHz: ~ 600 m (1200 ft) RF line-of-sight
Antenna:	Whip, Bracket Mount, RPSMA, Omnidirectional, 12.5 cm (5") length with 2 m (6.5 ft) cable, IP67, 2.4 GHz: 3 dBi, 900 MHz: 1.6 dBi
Data File Type:	.mdb (database), .xle or .csv (exported)
Sampling Interval:	10 seconds - 99 hours
Reporting Interval:	1 minute - 99 hours (the lower threshold will increase as the number of devices sharing the RF air space grows)
Schedule Programming:	Solinst Telemetry Software at Home Station
Power Supply:	6 x AA 1.5V replaceable lithium batteries
Battery Life Example:	1 year of standard usage
Memory Capacity: (Between Reports)	128 KB (13,000 LT or 10,000 LTC readings)
Operating Temperature:	-20°C to +60°C
Weight:	447 grams (15.8 oz)
Size:	8.79" (unit height to base of antenna jack)
Materials:	Black Delrin®, 316 stainless steel
IP Rating:	IP67
Compatible Dataloggers:	Levellogger 5 Series dataloggers, LevelVent 5, as well as previous versions of the LevelVent and Edge Series dataloggers
Connected Dataloggers:	1, or 2 using a splitter
Barometric Compensation:	Internal barometer for automatic barometric compensation of water level data if a Barologger is not being used (not required for vented loggers)
Internal Barometer Range:	60 kPa – 120 kPa
Internal Barometer Accuracy:	±0.2 kPa (2 cm)

