

## Why Use Telemetry Systems?

Telemetry systems offer cost savings, flexibility and easy access to remote monitoring locations.

### Advantages

- Frequent access to detailed data
- Long term cost savings
- Time saved by eliminating manual data collection
- No need for regular travel to remote field locations
- Self-management gives additional savings and data security
- Simple software and easy integration into network

### Applications

- Remote water level monitoring
- Long-term drought monitoring
- Management of water taking
- Golf course and mine water management
- Flood and storm water management
- Long-term aquifer management



#### STS

- LTE digital cellular
- Small to large networks
- Control your own telemetry systems over the web
- Set alarm notifications



#### RRL

- Short-distance radio
- Small closed loop networks
- Interchangeable stations (ideal for re-configuring your network)
- Compact, all-in-one units



#### LevelSender 5

- 4G cellular communication
- Compact design fits inside 2" well
- Data sent by email or SMS
- FTP data transfer option
- Set alarm notifications
- Built-in barometer
- Solinst SIM Card option

## Built For Solinst Dataloggers

Solinst Telemetry Systems are dedicated for use with Solinst dataloggers. This provides the advantage of combining a user-friendly telemetry system with high quality dataloggers.

Solinst dataloggers are ideal for remote monitoring, with independent user-defined logging schedules as a back-up. They have long battery life, power surge protection and a non-volatile memory. If programmed separately, dataloggers record regardless of the status of the Telemetry System.

Solinst dataloggers are low maintenance. These reliable, durable dataloggers have intuitive software with many useful features, such as self-tests and firmware upgrade and diagnostic utilities.



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Specifications	Cellular (4G LTE-M)	Cellular (LTE)	Radio
Why Use?	<ul style="list-style-type: none"> <li>fits in a 2" (50 mm) well</li> <li>built-in barometer</li> <li>cellular coverage available</li> <li>topography not suitable for radio</li> <li>send data via email and SMS</li> </ul>	<ul style="list-style-type: none"> <li>cellular coverage available</li> <li>topography not suitable for radio</li> <li>send data over the Internet</li> </ul>	<ul style="list-style-type: none"> <li>smaller applications</li> <li>closed loop network at any location</li> <li>fits in a 4.5" (115 mm) well</li> </ul>
System Differences	<ul style="list-style-type: none"> <li>built-in barometer</li> <li>monthly carrier fees</li> <li>no scheduling conflicts for data transmission</li> <li>alarm notifications</li> </ul>	<ul style="list-style-type: none"> <li>monthly carrier fees</li> <li>no scheduling conflicts for data transmission</li> <li>alarm notifications</li> </ul>	<ul style="list-style-type: none"> <li>free airtime, no long distance fees</li> <li>you control the network</li> <li>schedule data transmission times</li> <li>relay stations or bridge to STS to increase coverage</li> </ul>
Suggested Applications	<ul style="list-style-type: none"> <li>flood and stormwater management</li> <li>watershed management</li> <li>drought monitoring</li> </ul>	<ul style="list-style-type: none"> <li>flood and stormwater management</li> <li>watershed management</li> <li>drought monitoring</li> </ul>	<ul style="list-style-type: none"> <li>monitoring mine sites</li> <li>agricultural studies</li> <li>landfill supervision</li> <li>golf course management</li> </ul>
Remote Station Support	<ul style="list-style-type: none"> <li>cellular radio module</li> <li>dynamic IP address</li> <li>email address</li> </ul>	<ul style="list-style-type: none"> <li>IP enabled modem</li> <li>dynamic IP address</li> <li>115200 bits/sec</li> </ul>	<ul style="list-style-type: none"> <li>900 MHz radio</li> <li>9600 bits/sec</li> </ul>
Home Station Support	<ul style="list-style-type: none"> <li>email address</li> <li>LevelSender PC Software</li> <li>no extra hardware</li> </ul>	<ul style="list-style-type: none"> <li>static IP address</li> <li>STS/RRL PC Software</li> <li>no extra hardware</li> </ul>	<ul style="list-style-type: none"> <li>RRL Home Station radio with power source</li> <li>STS/RRL PC Software</li> </ul>
Datalogger Support	Connect one datalogger, or two using a splitter	Connect up to four dataloggers	Connect up two dataloggers, or up to four using a splitter
Data Transmission	<ul style="list-style-type: none"> <li>sent as text to multiple email and an SMS recipient</li> <li>data from each email/SMS saved as .xle file on the Home Station computer (exported using LevelSender Software)</li> <li>saved in a database on the Home Station computer (FTP folder or .sqlite file). Database is appended as new data is received</li> </ul>	<ul style="list-style-type: none"> <li>saved in a database on the Home Station computer (.mbd file). Database is appended as new data is received</li> <li>data can be exported using STS/RRL Software as .lev, .csv or .xle files</li> <li>barometric compensation can be done using STS/RRL Software</li> </ul>	
Antenna	Cellular SME Male Monopole 2dBi	Dual Band Dipole	6" (15 cm) half wave, (2.1dBi) non-articulating
Typical Coverage	Based on cellular network	Based on cellular network	20 mile (30 km) line of site
Optional Antenna	Higher gain antenna with max 12dBi	Quad Band, Omni Directional	5 dBi Omni Directional
Power	3 AA lithium batteries	12V 12-30 AHr deep-cycle, rechargeable sealed lead-acid battery recommended (not included)	6 AA lithium batteries
External Power and Charge Accessories	None	<ul style="list-style-type: none"> <li>Solar power connection package (for user supplied solar panel)</li> <li>AC power/battery charger assembly</li> </ul>	
Solinst SIM Option	✓		n/a
No Data Hosting Fees	✓	✓	✓
Remote Diagnostic Reporting	✓	✓	✓