RSTAR L900 Wireless Data Acquisition for Geotechnical Instruments

Description

The RSTAR Array Radio Series uses wireless technology to provide automated data acquisition. A complete RSTAR L900 System uses L900 RSTAR Nodes at the sensor level, deployed in a star topology from a continuously active L900 RSTAR Hub, which consists of an L900 RTU interfaced to a FlexDAQ Data Logger. The RSTAR Array Radio Series is based on the 900 MHZ, 868 MHz, and 2.4 GHz spread spectrum band (country dependent) with extensive open-country range through use of simple dipole or directional antennae.

Power requirements for a single RSTAR L900 node is one lithium standard cell. The FlexDAQ can be powered by a solar panel, batteries, or AC power.

L900 SYSTEM SPECIFICATIONS

ITEM	SPECIFICATION
Operating Frequency (country dependent)	900 MHz, 868 MHz, 2.4 GHz - Spread Spectrum band
Access Frequency	24 hours
Outdoor Range	Up to 14 km (at 900 MHz) in open country, depending on frequency and antenna
Maximum Nodes	255
Communication	See diagram on inside

L900 NODE SPECIFICATIONS

ITEM	SPECIFICATION
Memory	4 MB
Time Format	Month / day / year Hour / minute / second
Power Source	1 lithium standard cell battery
Additional Quiescent Current	15 µA
Battery Life	Years
Temperature Range	-40°C to 60°C (-40° to 140°F)
Enclosure dimensions will vary according to chosen data logger	
Specifications	