Telog RG-41

LORA WIRELESS, BATTERY-POWERED RAIN GAUGE SENSOR

Trimble.water

RAIN GAUGE MONITORING/ALARMING

Water and wastewater utilities are facing significant challenges due to water shortages, storm events and flooding, expanding customer service expectations and increasing environmental regulations. Budget constraints mean that utilities must do "more with less" and operate their networks more effectively and efficiently.

For utilities to meet these requirements they need visibility in near real time, of how their network is performing and responding to the demands placed upon it. In the past, the cost was prohibitive to deploy monitoring equipment to the scale required to give operations staff the required insight. But that is now possible with the Telog 41-Series.

As part of a smart water infrastructure, Telog's 41 Series is designed to enable utilities to monitor real-time operations, assess the condition of assets, asset performance and manage critical infrastructure. The sensors provide a cost effective solution to address the information deficit in water distribution and wastewater collection systems.

The Telog RG-41 Rain Gauge Recorder establishes a new standard in low power, IoT communication sensors for monitoring and alarming remote rainfall volumes. It allows utilities and municipalities to monitor rainfall in their service areas and correlate it's impact on their networks and/or watersheds and catchments.

Powered by a single user replaceable 'C' cell lithium battery, the Telog RG-41 continuously monitors the output of a tipping bucket rain gauge collecting rainfall data in user defined time increments then transfers the data automatically over a LoRaWANTM wireless network to a central host computer in the cloud or on the utility enterprise network.

To conserve battery power further, the Telog RG-41 may be configured to call the host server frequently when it is raining, (e.g. every 5 or 15 minutes, and less frequently when it is not raining; e.g. once every 4 hours; once/day).

Making data calls every 15 minutes, the recorder can operate an average of 5 years on one user replaceable 'C' cell Lithium battery. This significantly reduces the cost of ownership as the need to visit remote sites for frequent battery changes is removed.

The Telog RG-41 is compatible with all Telog software applications, including Telog DHS cloud hosted service, Telog Enterprise and Telogers for Windows application software. This ensures that utilities have a complete solution addressing all their remote monitoring needs across their operations, delivered in a manner that suits each individual utility's operations and IT needs.

Applications

▶ Rainfall monitoring

Features

▶ Wireless communication
▶ Alarm notification
▶ Time stamped events
▶ LoRaWAN communication protocol
▶ Integral antenna
▶ 5 year battery life with 15 minute transmits
▶ User replaceable 'C' cell Lithium battery

TELOG 41 SERIES

Telog PR-41 - Pressure Recorder
Telog WL-41 - Level Recorder
Telog RG-41 - Rain Gauge Sensor
Telog MTU-41 - Meter Telemetry Unit
Telog PE-41 - Pulse / Event Recorder

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Telog RG-41 LORA WIRELESS, BATTERY-POWERED RAIN GAUGE SENSOR

RECORDER MODEL: Telog RG-41

Type	Tipping Bucket Rain Gauge Pulse Recorder
Recording	
Pulse Input	Total pulse counts/interval; intervals selectable from 1/sec to 8 hrs
Input	Contact closure or logic driven input
Excitation	3 VDC at 20 µAmps (max)
Pulse width	10 mS minimum
Connection	Provided 2-wire jacketed cable; 3 ft. long
Memory	
Size	128 kB
Storage method	Wrap around (first-in; first-out)
Data capacity	
Pulse input	28,000 interval pulse totals
Communication:	
Local RS-232	4 pin circular connector rated IP-67; Auto-selected baud rate to 19.2K
Wireless	
Technology	LoRaWAN bi-directional class A protocol
Security	AES128 keys for encryption and authorization
Output Power	18.5 dbm maximum
Frequency	915 MHz (North America LoRa band)
Antenna	Integrated Antenna | External antenna optional
Battery	Factory installed single 3.6V Lithium 'C' cell Saft LSH 14 or equal
Battery Life	5 years nominal @ 15 minute transmits @ medium to excellent signal strength
Enclosure	
Size	4.70"L x 3.2"W x 2.2"H
Weight	1 lb (includes 3' cable)
Material	Polycarbonate
Environmental	
Temperature	-40 ºF to 160 ºF
Rating	NEMA 4x (IP67)

REQUIRED SOFTWARE & OPTIONS

S-3PC	Telogers for Windows®
S-3EP	Telog® Enterprise
DHS	Telog DHS Cloud Hosted Solution

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