Trimble water

Telog PE-41

LoRa WIRELESS, BATTERY-POWERED PULSE/EVENT RECORDER

PULSE/EVENT RECORDER FOR FLOW METER TOTALIZING AND PUMP RUN TIME

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, the Telog 41 Series sensors are designed to enable utilities to monitor real-time operations, assess the condition of assets, repair leaks to reduce non-revenue water (NRW) and manage critical infrastructure. The sensors provide a cost effective solution to address the information deficit in water collection and distribution systems.

The Telog PE-41 establishes a new standard in low power, wireless recorders for pulse and event recording. It allows utilities to retrofit a cost effective sensor to monitor existing mechanical flow meters and pumps in the field, providing an up to date view of flow and pump runtimes/duty cycles.

By deploying Telog PE-41s for bulk flow meters and pumps in their network, utilities can dramatically improve their insight into network behavior while achieving significant savings in operational costs.

The Telog PE-41 continuously monitors the output of a contact closure, pulsed output or event output device in user defined time increments then transfers the data automatically to a central host computer on a user defined schedule over a LoRaWAN™ network.

Packaged within a 4.7"x3.2"x2.2" NEMA 4x rated environmental enclosure, the Telog PE-41 is small enough to install almost anywhere. Because the antenna is enclosed within the Telog PE-41, the only connection required is the meter or pump being monitored.

The Telog PE-41 uses a low power, long range LoRaWAN communication protocol which is an industry standard for the emerging Internet of Things (IoT). 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 PE-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

- Remote monitoring of Custody Transfer points in Water/Wastewater networks
- Remote monitoring of bulk flow meters in Water/Wastewater and Stormwater networks
- Monitoring of remote pumps in Water/Wastewater and Stormwater networks
- CSO/SSO Monitoring

Features

- Wireless communication
- Alarm notification
- Time stamped events
- Records level and duration of 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

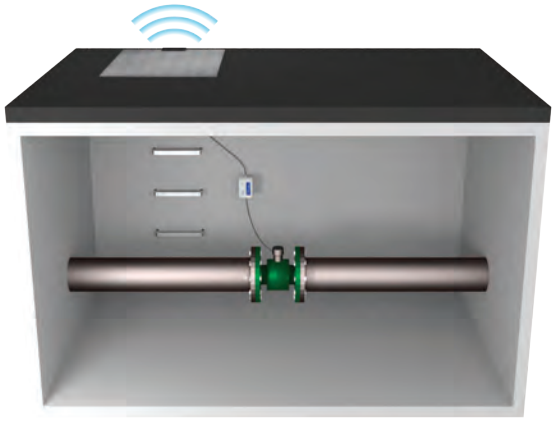
Telog PE-41 LoRa WIRELESS, BATTERY-POWERED PULSE/EVENT RECORDER

RECORDER MODEL: Telog PE-41

Type	Single input pulse/event recorder
Recording	
Pulse Input	Total pulse counts/interval; intervals selectable from 1/sec to 8 hrs
Event Input	Time stamp of on/off events to one second resolution
Input	Contact closure or logic driven input
Excitation	3 VDC at 20 µAmps (max)
Pulse Width	10 mS minimum
Connection	2 position terminal block for flying leads via water tight fitting
Memory	
Size	128 Kbytes
Storage method	Wrap around (first-in; first-out)
Data capacity	28,000 event time stamps, or 80,000 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
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 to 160°F
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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