



Telog HPR-32iA

WIRELESS, BATTERY-POWERED PRESSURE AND IMPULSE MONITORING

PRESSURE MONITORING WITH TRANSIENT WAVEFORM CAPTURE

The Telog HPR-32iA is an ideal pressure monitoring solution for pressure monitoring, transient analysis, fire flow testing, customer pressure concerns, and hydraulic model calibration. The Telog HPR-32iA recorder measures water pressure at user programmable rates up to 256 samples per second with an internal pressure transducer. The recorder then computes any combination of the minimum, average and maximum values according to your selection of statistics and recording intervals. For example you can measure and store the maximum, minimum and average pressure at 5 minute intervals for more than 90 days (when impulse monitoring is disabled).

The impulse recording option feature of the Telog HPR-32iA units stores the waveform of captured transients. The Telog HPR-32iA can store up to 125 events of variable duration that may occur over many months of on-site monitoring, up to a maximum rate of 256 samples per second and a total of 42,000 data values.

Trimble Unity software combined with Telog wireless hydrant pressure recorders provide a GIS-centric cloud and mobile platform for monitoring system pressures, transients and trends, min, max and average pressure history at any user defined interval. Hydrant pressure recorders can store data internally for many months and wirelessly transmit on a defined schedule and provide alerts and alarms in response to pressure faults or transients, delivering a complete solution for proactive pressure and leakage monitoring and management.



Wireless Communication

The power of every Telog 32 series recorder from Trimble Telog is wireless data transfer capability. Using cellular technology enables unmanned monitoring of remote sites as well as instant updates and alarm notifications. The Telog HPR-32iA uses a low power, LTE/Cat 1 cellular communication modem certified on Verizon Wireless.

Battery Power

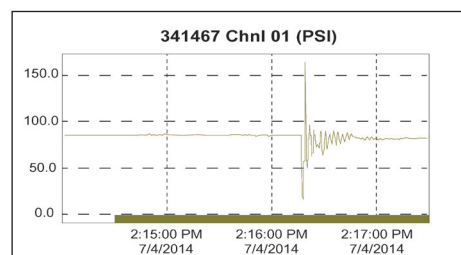
All Trimble Telog hydrant pressure recorders have low power requirements so they can be battery operated. The Telog HPR-32iA series uses a user replaceable BP-4 lithium battery pack. The battery life of a Telog HPR-32iA depends on the sampling resolution chosen in addition to the call schedule (see table below for examples). With user configurable call and sampling rates, you get to choose the best configuration for your application.

Packaging and Installation

Every hydrant pressure recorder from Telog is a low-profile, rugged unit that is easily installed by one person on a standard 2.5 inch hose nozzle outlet. For ease of mind, an optional security cover can be used to prevent vandalism. Once installed, data is immediately available using the range of Trimble software solutions on the cloud or on premise.

Software Support

The Telog HPR-32iA is compatible with all Trimble software applications, including Trimble Unity, Telog Online (cloud), 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.



Recorded data from captured impulse event

Applications

- ▶ Customer pressure complaint investigation
- ▶ Pressure loss testing
- ▶ System pressure monitoring
- ▶ Water hammer monitoring
- ▶ Calibrating hydraulic models
- ▶ Fire flow testing
- ▶ Hydrant capacity testing
- ▶ High speed sampling to 256 samples/second

Benefits

- ▶ Reduce non-revenue water leakage and water main bursts
- ▶ Improve customer service and response time
- ▶ Monitor and optimize water supply and operations
- ▶ Real-time situational awareness on water pressure and supply

Features

- ▶ Wireless communication via cellular (LTE)
- ▶ Alarm notification
- ▶ Time stamped events
- ▶ Integral antenna
- ▶ 5 year battery life

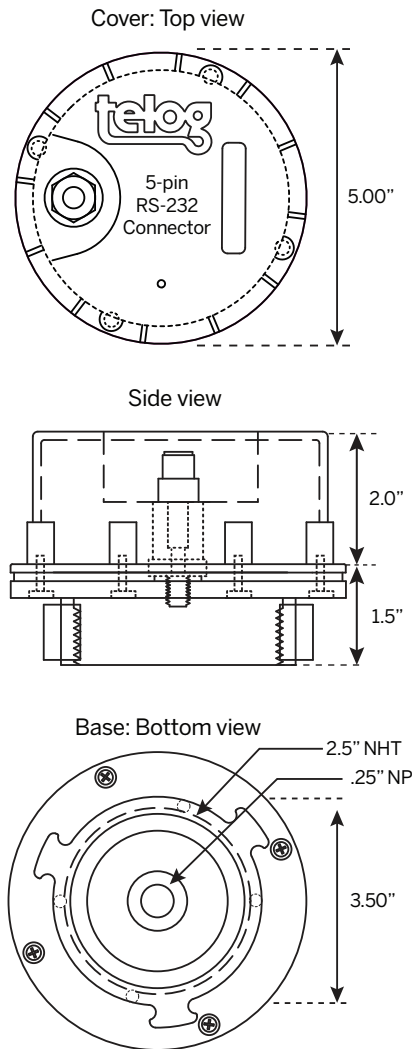
Telog HPR-32iA SPECIFICATIONS

RECORDER MODEL: Telog HPR-32iA

Type	Strain gauge, isolated pressure sensor with wireless
Range (psi)	-15 to 200, -15 to 300 (contact Telog for other ranges)
Over Pressure (psi)	600, 600
Burst Pressure (psi)	1000, 1000
Resolution	0.025% of full scale, 12-bit
Accuracy	±0.25% of full scale at constant temperature
Temperature Effect	±0.015% of full scale per °F
Recording	
Sample Rate	Programmable from 256/sec up to 8 hours
Data Recorded	Selectable min, max and average pressure per interval
Interval Period	Programmable from 1 second to 8 hours
Memory Total	~82,000 data values (Shared between Impulse and normal data)
Impulse On	Note: Normal mode operates as specified above when impulse mode is on or off.
Data Recorded	Normal mode interval data plus transient event waveforms including pre and post transient event data, user configurable.
Transient Trigger	Pressure rate-of-change; either positive or negative; user configurable
Impuse Memory	Up to 125 transient events to a maximum of 41,000 samples after which new data will overwrite oldest data.
Communication	
Local RS-232	5 pin circular connector rated IP67 Auto-selected baud rate to 19.2 kbaud
Cellular	Internal Telog WM2/L1 cellular modem LTE Category 1 certified Verizon Wireless
Local Bluetooth BLE 4.1	
Bluetooth low energy	max range is 20 feet in open field line of site.
Battery	Factory installed, field replaceable Telog BP-4 lithium battery pack
Battery Life	Up to 2800 data calls to host computer
Examples:	5 years with Daily Data Transfers, 4 Samples per second (HPR-32A and HPR-32Ai) 2 years with Daily Data Transfers, 128 Samples per second (HPR-32Ai) 1 year with Daily Data Transfers, 256 Samples per second (HPR-32Ai) (@ very good to excellent signal strength)
Memory	
	82,000 Data Values
	Up to 125 transient events maximum of 41,000 Data Values.
Support Software	
S-3PC	Telogers for Windows® 6.51 or later
S-3EP	Telog® Enterprise 6.51 or later
DHS-Service	Telog Online
TW-UNITY	Trimble Unity
Environmental	
Temperature	
Operating	40° to 150°F [4° to 66°C]
Storage	-40° to 150°F [-40° to 66°C]

Note: For applications below this operating range please contact your Trimble Telog support team.

Humidity	0-100% relative humidity
Enclosure	NEMA 4x/IEC IP65
Size	5" diameter x 3.5" [127mm diameter x 89mm]
Thread*	Hydrant mount: 2.50" NHT standard
(see side view)	Contact Telog for non standard thread
	Internal mount: 1/4" NPT
Security Cover	High impact nylon security cover. Choose from yellow, red or gray to best match hydrant color. Lockout hasps included.



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