

PulseEight Wireless Gauge

Providing real-time monitoring in new or existing wells via a simple intervention.

Whether wells have failed permanent downhole gauges or were never intended to have downhole monitoring, the PulseEight Wireless Gauge can offer a simple retrofit option to get real time reservoir pressure and temperature data at surface.

The compact inline system can be deployed via standard intervention methods and positioned below; lock mandrels, retrievable bridge plugs or packers. Its versatility permits its use in wells with flow rates exceeding 100MMscf/day.

Fluid Harmonics, Tendeka’s proprietary communications system, allows data to be sent wirelessly from the tool to surface in gas, liquids or multiphase flow regimes. Fluid Harmonics achieves all of this without the need of signal boosters or repeaters making the downhole component compact, not just in size, but in application.

At surface, the system can be configured to integrate with existing wellhead pressure monitoring without the need of any additional hardware. Alternatively, Tendeka’s PulseEight surface equipment can be provided with a minimal footprint.

The same Fluid Harmonics methodology is used to communicate back down from surface to the Wireless Gauge, where changes can be made to program parameters for data transfer frequency, battery conservation etc.

The Wireless Gauge contains two independent quartz sensors providing best in industry monitoring of both pressure and temperature. This data can be sent to surface at regular

Features

- 2 independent quartz sensors
- Flash memory storage
- Fluid Harmonics wireless communication

Benefits

- Retrofit capable through intervention
- Configurable in hole with Fluid Harmonics
- Real-time pressure and temperature data
- Little/no surface infrastructure

intervals, typically daily, weekly or monthly, making the system ideal for long-term pressure monitoring. Additionally, this same data can be recorded to the wireless gauge’s internal flash memory at a range of frequencies which permits detailed analysis upon retrieval to surface.

This PulseEight Wireless Gauge offers a true alternative to traditional memory gauge systems, as the real-time capability provides valuable information to surface in a time frame that can permit early decision making to optimise production from well(s) or reservoirs.

Technical Specification

Tool OD	2.50"
Maximum length	30ft
Body pressure rating	10,000psi
Operating temperature	110C
Power	Lithium battery
Typical accuracy	P- 0.0015% FS / T- 0.15%FS
Sampling resolution	P - <0.008psi / T - <0.15°C
Drift @ max temp	P – 0.02% FS/year / T- <0.1°C/year
Telegram frequency	Daily, Weekly or Monthly