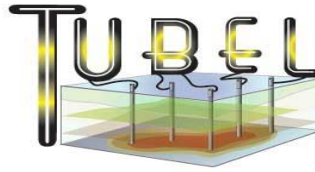


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PRODUCT DATASHEET

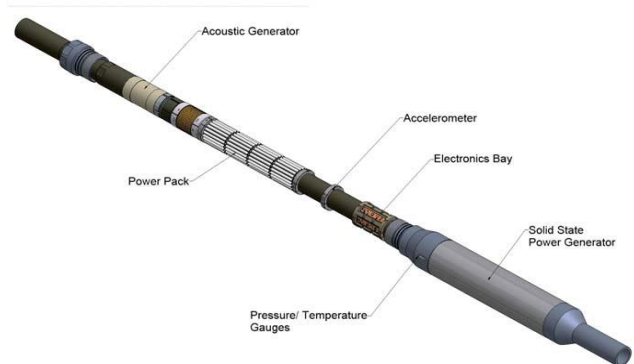
Wireless Real Time P/T Downhole Gauges

KEY FEATURES

- Accurate high accuracy P/T data – Quartz Sensor
- Deployed for Permanent or Service Work
- Real time communication
- Wireless Communications between gauge and receiver
- Life Expectance of 3 years
- Power Generator for longer life in the well

APPLICATIONS

- Horizontal and Vertical Frac monitoring
- Pressure build up tests
- Permanent Well Monitoring
- Offshore Gravel Pack monitoring
- Offshore Service work

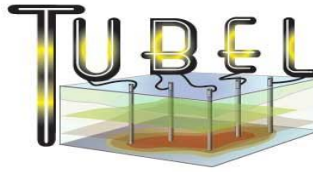


Tubel Energy provides a Real Time Wireless Gauge System to monitor pressure and temperature inside a wellbore. The Wireless Systems is deployed as part of the production string, work string or washpipe. The gauge can be used for monitoring the frac process, for permanent production monitoring and for well service applications.

The Wireless Real Time Gauge System uses acoustic waves transmitted through the pipe to get digital information from downhole to the surface. A repeater module can be used to extend the distance between transmitter and receiver.

The receiver system transfers the data obtained downhole to a SCADA module located at the surface. The data is loaded into a PC for processing. A downhole power generator can be used to extend the life of the gauge in the wellbore.

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Specifications

Pressure	
Sensor	Strain
Standard Ranges	1,500 to 10,000 psi
Maximum Overpressure	5.0% Full Scale
Accuracy	0.01% Full Scale
Long Term Stability	0.01% Full Scale
Drift	< 3 psi / year
Resolution	0.025 % Full Scale
Response Time	Instantaneous
Temperature	
Standard Ratings	125°C
Accuracy	± 1.0 °C
Resolution	0.01% Full Scale
Power	
Source	Batteries or Downhole Power Generator
Data Acquisition	
Record Contents	Time, Pressure, Temperature
Sample Interval	1.0 seconds
Downhole Comm.	Wireless
Surface Comm.	Wireless
Software	Windows Compatible
System Material	
Housing	4140 Steel

Tubing Diameter	
	2 3/8, 2 7/8, 4.5
System	
Max operating temperature	125 Celsius (212F)
Max oper. pressure	10,000 psi
Data acquisition rate	Once a second
Life in the well	3 years or more
Transmission Range	6,000 ft without repeaters

For More information contact:

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