



Helios can detect, identify and position downhole acoustic events and vibration to an accuracy of 1 metre

Helios Distributed Acoustic Sensing from Fotech delivers a breakthrough in distributed sensing providing a live Dynamic Acoustic Profile at every metre of a well – right down to the producing zones.

Helios can be used throughout the oilfield, down-hole or in flow-lines, risers or pipelines to monitor conditions or accurately locate and identify events such as pump failure, damage or leakage.

Fotech's patented system uses back-scatter analysis of pulsed laser light to turn an optical fibre cable into a high fidelity monitoring instrument that continuously detects acoustic and vibration events.

- Live Well Profile: real time, all the time view of an entire well
- Live Production Data: view entry points of oil, gas, solids and water
- Live Integrity: monitor well integrity from head to toe
- Live Pump And Lift: measure and monitor operating efficiencies
- Live Flow: dynamic real-time flow profiles





Helios can identify and position individual events to an accuracy of 1 metre and can simultaneously detect and identify multiple events separated by a minimum of 2 metres at any point on a sensor fibre up to 50 km long, and by integrating multiple systems this range can be extended to virtually any distance.

Proven Effective in the Production Environment

Helios has shown valuable results when deployed in some of the most complex down-hole scenarios in the oilfield to date.

When correlated with Distributed Temperature Sensing (which Fotech can provide through our partners), Helios creates an unprecedented real-time dynamic profile of well conditions.

Intuitive User Interface, Internet and Mobile Integration

The user interface for Helios is simple, intuitive and graphical and the software integrates with the most widely used mapping and GIS tools with most IT systems the Internet and mobile communications.

Helios rapidly puts critical monitoring data and alarm feeds in the hands of key decision makers regardless of location, enabling them to make better informed decisions earlier, helping avoid costly failures or unproductive time.

Simple Installation, Safe in Production Environment

With minimal disruption, Helios is massively increasing knowledge of the downhole environment, giving operators unprecedented detail on conditions deep in the well.

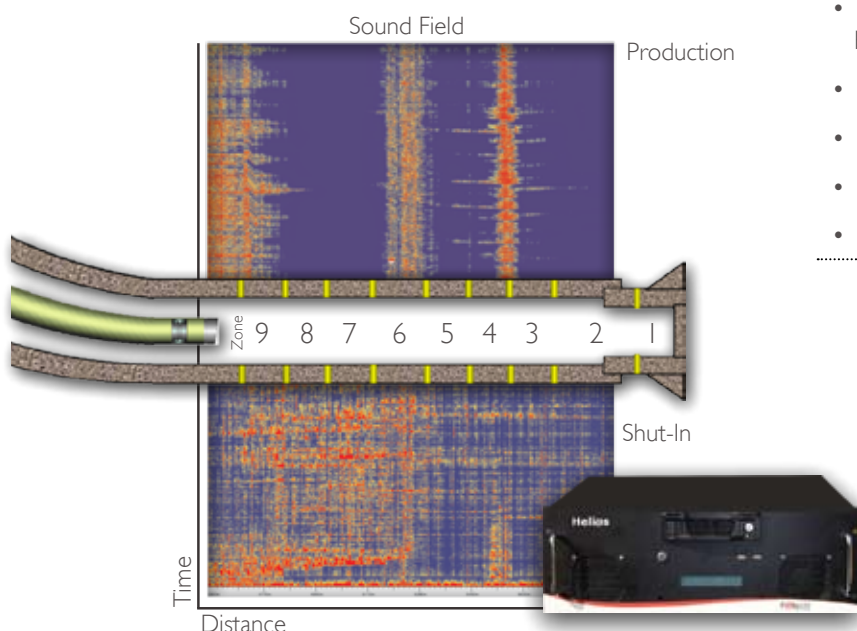
The Helios sensor is a simple glass fibre cable and is small, flexible and electrically passive, meaning that using standard industry techniques, or simply by attaching the interrogator to an existing DTS fibre, it can be simply and safely deployed even into producing wells.

Global Project Management and Service Delivery

The Fotech team has a proven track record in the Oil & Gas industry, experience and deep domain expertise in global Oilfield Services. As a result Fotech is geared to the operational and project demands in upstream Oil & Gas and this drives our uncompromising client-focused approach to business.

We offer a comprehensive monitoring solutions service to the oilfield, pipeline and process plant, from initial requirements capture and site surveys right through project and system design and deployment to monitoring, analysis, reporting and in-life support and management.

- Monitoring multi-zone production in tight gas wells.
- Identifying producing zones.
- Locating sand and water production.
- Providing close surveillance of heavy oil SAGD operations.
- Monitoring coal-bed methane wells.
- Downhole pump condition monitoring.
- Tracing and quantifying leaks in risers and flow lines.
- Locating hydrates, scale and corrosion in flow-lines.





Fotech Distributed Acoustic Monitoring System Technical Specifications

Max fibre length	50 km
Max spatial resolution @ 15 km	1 m
Max spatial resolution @ 50 km	±5 m
Min separation for discrimination of unique events	± 2 m
Max signal bandwidth	10 kHz

Contact Details:

If you are interested in hearing more about Fotech's Distributed Acoustic Monitoring please contact us:

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