



GENERAL DESCRIPTION

Combining mono-crystal micro sensing elements with corrosion and HPHT resistant protective casing that can fit in the palm of your hand, OpenField™ sensors are unique in making microchip technology work in the harshest environments, giving well operators superior data on downhole pressure and temperature.

IDEAL FOR PRESSURE TRANSIENT ANALYSIS

Thanks to its extremely fast settling time, OpenField™ proprietary MEMS technology drastically improves dynamic data acquisition and interpretation during Well Test operations.

DUAL GAUGE DOWNHOLE FLOW MEASUREMENT

When mounted on the same mandrel with a restriction throat, two gauges are used as a Venturi flow-meter, making the most of their high-resolution time synchronisation.

THE BENEFITS OF MINIATURIZED TECHNOLOGY

The small size of our revolutionary pressure and temperature gauges offers key advantages to well operators, including easy deployment in standard DST Mandrels, immediate responses to changing conditions, and low power consumption for up to 24 months of downhole monitoring. All of this with data quality superior even to Quartz technology.

SPECIFICATIONS

OD	19mm (0.75")
Length	184mm
Battery	1 single AA lithium battery
Memory	1.4 million data sets (Time, Pressure, Temperature) 2.8 million in option
Pressure range	10/15/20 kPsi
Temperature range	125/150/170°C (257/302/338°F)
Pressure Accuracy	+/-0.01% FS
Pressure Resolution	0.00005% FS
Temperature Resolution	1 mK at 1 Hz
Measurement period	From 128Hz to 1 data every 64sec
Deployment	DST Mandrel Slickline Surface
Interface	Plug and Play USB

APPLICATIONS

- Fracturing jobs
- Well monitoring
- Reservoir evaluation
- Build-up analysis
- Flow assurance
- Water injection monitoring
- Perforation jobs
- Gradient logging

HIGH ACCURACY - HIGH RESOLUTION
MEMS MICRO-RECORDER FOR PRESSURE AND TEMPERATURE



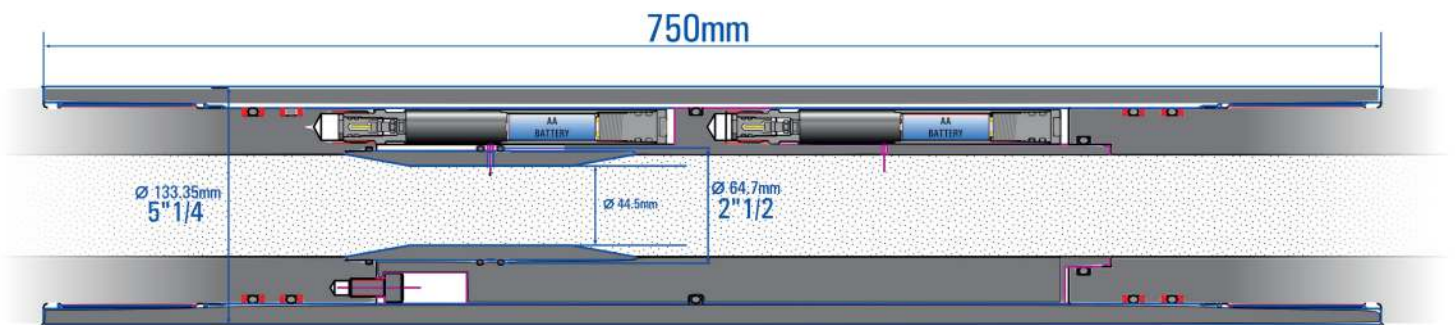
DUAL GAUGE FLOW MEASUREMENT

Mounting two gauges in one mandrel with a restriction throat allows not only full Pressure Transient Analysis on each gauge, but also Flow Measurement through accurate differential pressure measurement.

Measurement range depends on allowed restriction diameter.



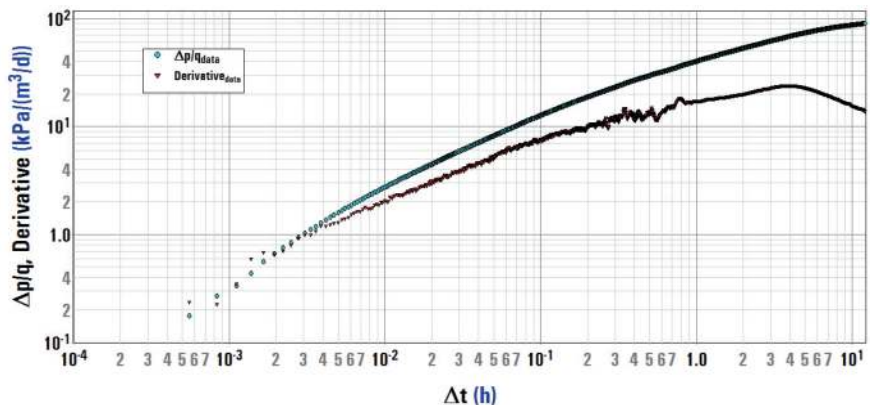
3D-view of a dual gauge flow measurement in a Venturi Mandrel



Side view of a dual gauge flow measurement in a Venturi Mandrel

METROLOGY

High Accuracy, High Resolution measurement with fast settling time means outstanding derivative analysis data. Any Pressure Transient Analysis directly benefits from this higher data quality, to give you an even finer understanding of your reservoir.



Derivative analysis of a draw-down measured at 1Hz.

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