Fluid Density Inertial (FDI)

The Fluid Density Inertial (FDI) tool uses the inertial response characteristics of a vibrating tuning fork to determine the density of the wellbore fluid mixture.

Description

The FDI tool is a non-radioactive method of determining density that unaffected by well deviation. The sensor comprises a stainless steel tuning fork that is vibrated near its natural frequency of operation by a piezoceramic stack and control electronics in the upper section of the tool. The frequency and amplitude of vibration are used to determine the actual density of the fluid surrounding the fork. Optimum quantitative results will be achieved in liquid-liquid mixtures or in pure gas.

Features

- Production profiling
- Fluid identification
- Horizontal and highly deviated wells
- High flow rates
- Fully compatible with all Ultrawire* Production Logging Tools
- Surface readout or memory operation
- Non-radioactive
- Shorter length ideal for offshore operations

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Specifications	
Temperature rating	350°F (177°C)
Pressure rating	15,000 psi (103.4 MPa)
Tool diameter	$1\ ^{11}/_{16}$ in. (43 mm)
Tool length	20.55 in. (522 mm)
Tool weight	7.94 lb (3.6 kg)
Toolbus	Ultrawire*
Current consumption	@18 V dc = 35 mA
Max. current consumption	50 mA
Resolution	0.01 g/cc
Accuracy	0.03 g/cc
Measurement range	0 to 1.25 g/cc
Fluid viscosity range	1 to 50 cS
Materials	Corrosion resistant throughout

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