

QUARTZ PRESSURE SINGLE

QPS

Production Logging Tools

Sondex



DESCRIPTION

The Sondex Quartz Pressure Tool uses an industry standard precision quartz crystal pressure transducer. The tool measures pressure and gauge temperature.

OPERATING PRINCIPLE

Wellbore pressure is transmitted through an isolating metal bellows to a volume of silicone oil which surrounds the quartz pressure crystal. Changes in hydrostatic pressure alter the resonant frequency.

A second crystal, not subjected to external pressure, provides temperature compensation and allows calculation of precision, high resolution, pressures.

APPLICATIONS

- Draw-Down and Build-Up Pressure Transient Analysis.
- Down-Hole Pressure Gradient Measurement.

INTERFACING & TOOL COMBINATIONS

- Mbus, SRO (surface readout) or Ultrawire™ telemetry.
- Mbus QPS interfaces direct to MPL, XMW and XSH telemetry tools only. It may be used for memory or SRO logging.
- SRO QPS may be placed anywhere in the string and can combine with a second QPS.
- Ultrawire QPS may be placed anywhere in the string and can combine with other QPS. It may be used for memory or SRO logging.

OPTIONS

- Other Quartz transducers to Customer Specification.
- Special Heads to Customer Specification.

SPECIFICATION

	Mbus	SRO	Ultrawire
Supply Voltage	+12v DC	+60v DC	
Current	7mA	50mA	20mA
Max. Pressure	15,000psi (103MPa)		
Max. Temperature	350 Degree F (177 Deg C)		
Length	12"(305mm)	22.5"(572mm)	19.01" (482mm)
Measure Point	2.9"(74mm)		
Diameter	1 1/2" (38mm) & 1 11/16" (43mm)		1 11/16" (43mm)
Weight	6.5lb(3kg)	9.6lb(4.4kg)	8.8 lb (4.0kg)
Measurement Range	0-15,000psi		
Accuracy	+/-0.02%		
Linearity	<0.01%FS		
Resolution	0.008psi & <0.005 Deg C		
Repeatability	<0.01%FS		
Hysteresis	<0.01%FS		
Drift	Less than 3psi per year		
Materials	Corrosion Resistant Throughout		