

Quantum™ 150C Piezo Memory Gauge

Features large memory capacity and proven reliability for long term pressure and temperature surveys

Applications

- Gradient surveys
- Leak detection
- Drill stem testing
- Long-term monitoring

Features and Benefits

- Fast-response external temperature sensor enables accurate leak detection and temperature gradient surveys
- High-temperature reliability and low drift, make them suitable for long-term monitoring

Tool Description

The Weatherford Quantum 150C Piezo memory gauge is a slickline, e-line, or coiled tubing conveyed downhole memory gauge with significantly enhanced capabilities. The memory gauge is available in various ODs and pressure ratings depending on the application.

An external fast response RTD temperature sensor is a feature on the 1.25-in. gauge. The memory has 4X redundancy capability and up to 8 million data sets. With the addition of the SRO panel, the gauge can have e-line compatibility.

Specifications

Ratings and dimensions

Outer diameter	0.75 in. (19.0 mm)	1.25 in. (31.75 mm)	1.5 in. (38.1 mm)
Length	18.0 in. (0.46 m)	26.0 in. (0.66 m)	29.0 in. (0.74 m)
Weight	4.0 lb (1.36 kg)		
Maximum temperature	302°F (150°C)		
Pressure range	5,000, 10,000, 16,000, and 20,000 psi (34.4, 68.9, 110.3, and 137.8 MPa)		



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Specifications, continued

Hardware characteristics

Transducer type	Pressure - Piezo resistive / Temperature - RTD
Acquisition mode	SRO or Memory
Materials	Inconel825/Hastelloy (NACE MRO 175) & Nitronic 50SS
Connections	Top: 3/4 in.-16 Pin Bottom: 3/4 in. -16 Box

Pressure measurements

Pressure range	5,000, 10,000, 16,000, and 20,000 psi (34.4, 68.9, 110.3, and 137.8 MPa)
Sampling rate	1 sps - programmable
Resolution	0.0003% F.S.
Accuracy	0.024% FS / 0.05% F.S.
Drift	<3 psi / year

Temperature measurements

Maximum temperature	302°F (150°C)
Resolution	0.0018°F (0.001°C)
Accuracy	± 0.449°F (± 0.25°C)
Response time	1.5 sec / 10°C

Electrical specifications

Consumption	3.6V
Maximum data	8,000,000 sets
Interface	USB
Power source	AA or CC Battery / E-line

