

Quantum™ 177C Quartz Memory Gauge

Features large memory capacity and proven reliability for long term surveys with precision quartz pressure sensors

Applications

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

Features and Benefits

- Precision quartz pressure sensor delivers accurate pressure and temperature for well performance and well optimization applications
- High-temperature reliability and low drift, make them suitable for long term monitoring

Tool Description

The Weatherford Quantum 177C quartz 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. 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. (19.05 mm)	1.25 in. (31.75 mm)	1.5 in. (38.1 mm)
Length	28.0 in. (0.71 m)	38.0 in. (0.97 m)	40.0 in. (1.0 m)
Weight	4.0 lb (1.36 kg)		
Maximum temperature	302°F (150°C)		
Pressure range	10,000, 16,000, and 20,000 psi (68.9, 110.3, and 137.8 MPa)		



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Specifications, continued

Hardware characteristics

Transducer type	Digital Quartz
Acquisition mode	SRO or Memory
Materials	Inconel 825/Hastelloy (NACE MRO 175)
Connections	Top: 3/4 in. -16 Pin Bottom: 3/4 in. -16 Box

Pressure measurements

Pressure range	10,000, 16,000, and 20,000 psi (68.9, 110.3, and 137.8 MPa)
Sampling rate	1 sps - programmable
Resolution	< 0.01 psi
Accuracy	0.015% FS (10K) / 0.02% FS (16k & 20k)

Temperature measurements

Max temperature	350°F (177°C)
Resolution	0.0018°F (0.001°C)
Accuracy	± 0.449°F (± 0.25°C)

Electrical specifications

Consumption	3.6V
Maximum data	8,000,000 sets (memory has 4X redundancy capability)
Interface	USB URod
Power source	AA or CC Battery / E-line

