

Madden High-Temperature PLT

Mechanical Specifications

Temperature rating

Pressure rating

High-temperature production logging tool

The Madden high-temperature production logging tool (PLT) is rated 450 degF and can be run in corrosive environments and for a limited time at high temperatures. It incorporates the reliability, accuracy, and functionality of the standard PLT with the advanced high-temperature technology of the geothermal PLT. It contains the same sensors as the standard tool and has an OD of 1.6875 in.

This system records data to downhole memory in addition to sending data to the surface via the telemetry system. This allows for continued data acquisition and minimizes pulling out of the hole if surface communications are lost.

Onboard diagnostics allows correction and compensation of data while logging, providing quality control to cross reference acquired data to downhole events, rather than possible tool problems.

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Maximum outside diameter	1.6875 in [4.29 cm]
Measurement Specification	ons
Pressure sensor	
Type	Quartz crystal
Resolution	0.01 psi
Accuracy	±0.03% full scale
Ranges	10,000, 16,000, and 20,000 psi
Make	Quartzdyne [®]
Temperature (borehole)	
Rating	450 degF [232 degC]
Туре	Platinum RTD
Resolution	0.001 degC
Accuracy	±1 degC
Response	0-100 degC, 4 s
Gamma ray detector	
Type	Scintillation
Collar locator	
Туре	Coil rare earth magnet
Capacitance	Dielectric fluid identification
Flowmeter (HD spinner)	
Туре	Continuous and collapsing
Sensors	Reed switch/magnetic
Resolution	0.25 rps or 0.08 rps
Data status	Velocity/direction/diagnostics

450 degF [232 degC]

20,000 psi [138 MPa]

Tool length e-line/memory: 14 ft [4.3 m] Memory: 11 ft 6 in [3.5 m] Gamma ray 84 in [213 cm] Flask OD: 1.6875 in [4.29 cm] Pressure sensor: 44 in [112 cm] Collar locator: Sensor 30 in [76 cm] package OD: 1.6875 in [4.128 cm] Temperature capacitance: 18 in [46 cm] Continuous flowmeter (spinner) ODs: 1.375 in-2.75 in [3.5 cm-7 cm] Spinner: 4 in [10 cm] Collapsing spinners also available Tool zero point

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