

Fast-Response Temperature Tool

Measures wellbore temperature using a platinum resistance thermometer in a low-mass Inconel® tube

Applications

- Conventional temperature logging
- Leak detection, gas inflow points, top of cement
- Flow behind pipe

Features and Benefits

- Combinable with all high-speed digital (HD) telemetry tools
- Rapid response to temperature change
- Compact and robust

Tool Description

The Weatherford fast-response temperature tool measures wellbore temperature by means of a platinum resistance thermometer housed in a low-mass Inconel tube.

This tool provides an accurate, rapid response, and high-resolution temperature measurement that is essential to production logging and leak detection.



Fast-Response Temperature Tool

Specifications

Ratings and Dimensions

Maximum temperature	350°F (177°C)
Maximum pressure	15,000 psi (103.4 MPa)
Outside diameter	1.69 in. (43.3 mm)
Length	14.2 in. (360 mm)
Weight	7 lb (3.2 kg)
Materials	Corrosion-resistant materials used throughout

Measurement

Range	-40 to 350°F (-40 to 177°C)
Accuracy (+/-)	0.9°F (0.5°C)
Response time	~ 0.5 seconds
Resolution	0.006°F (0.003°C)
Linearity	0.5°F (0.15°C)

Hardware Characteristics

Combinability	All HD tools (RADii™, iQ™, PL, RAS™) when connected to flow and temperature electronics (FLTE), and flow and temperature tool (CFT)
Acquisition mode	Real time with telemetry control unit (TCU) Memory with memory logging tool (MLT)

Electrical

Current	7 mA at 50 V 16 mA at 19 V
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