

DTC

Digital temperature capacitance tool

APPLICATIONS

- Temperature survey for leak detection
- Accurate pressure measurement for reservoir monitoring or pressure transient surveys
- Pressure and temperature measurements for production logging or injection profiling
- Pressure gradient measurement, fluid identification from pressure gradient
- Capacitance water holdup measurement in production logging

ADVANTAGES

- High-accuracy, fast response temperature probe directly measures wellbore temperature
- Compact tool combining three key production logging sensors: quartz pressure, temperature, and fluid capacitance
- High-resolution, precision quartz pressure transducer

The digital temperature capacitance (DTC) tool combines three key production logging sensors in one compact package. Featuring industry-standard Quartzdyne pressure sensor for pressure measurement, fast response temperature probe, and fluid capacitance measurement for water holdup, the DTC provides the basic measurements required for pressure gradient surveys, buildup or transient analysis, production and injection profiling (when run in combination with a spinner), leak detection, and water holdup.

Technical Specification

Temperature rating, deg	302 degF [150 degC]
Pressure rating	15,000 psi [103.4 MPa]
Length	29.5 in [750 mm]
Outside diameter	1 ¹¹ / ₁₆ in [43 mm]
Weight	12.6 lb [5.7 kg]
Service	H ₂ S service
Top thread	1 ³³ / ₆₄ in 12 Stub ACME (BEST) female
Bottom thread	1 ³³ / ₆₄ in 12 Stub ACME (BEST) male
Memory capacity	8.8 d
Sampling rate	1.0 s (each dataset)
Quartz pressure range	10,000 psi [68,900 kPa]
Accuracy	±2 psi [13.8 kPa]
Resolution	0.005 psi [0.0345 kPa]
Quartz temperature range	32 to 302 degF [0 to 150 degC]
Accuracy	±0.54 degF [±0.3 degC]
Resolution	0.018 degF [0.01 degC]
Quartz capacitance	Air: 19,500 Hz Diesel: 15,700 Hz Water: 6,000 Hz



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