

QL40 ▲ IND

Dual Induction Probe

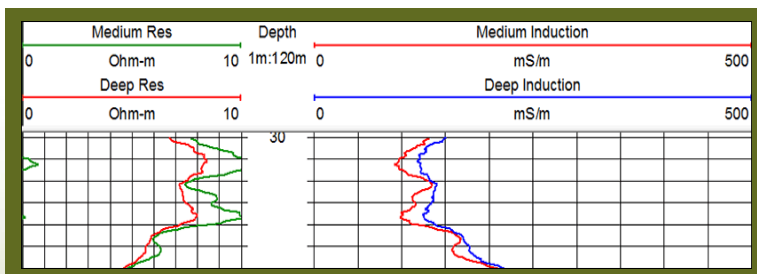
The dual focused induction probe provides two simultaneous conductivity logs, corresponding to “medium” and “deep” radii of investigation into the formation.

The two depths of penetration are useful in porous, permeable formations where displacement of formation fluids by drilling mud creates an “invasion zone” with different electrical properties. High stability and exceptionally wide dynamic range allow the user to carry out precise measurements of conductivity in formations with sand-clay layers and mineralized water-soaked sands. The probe can be used in water filled, dry and plastic cased boreholes.

The QL40-IND probe can aid locate permeable zones and identify water salinity. When deployed as part of mineral or geotechnical studies the probe can identify ore bodies. Finally conductivity can be an indicator of hydrocarbons.

Able to be stacked with other QL40 probes the QL40-IND provides a fast simple means of measuring electrical ground properties in dry and cased boreholes.

The QL40-IND sub can be combined with other logging tools of the QL (Quick Link) product line or can be operated as a standalone tool. It is compatible with Matrix, BBOX and ALTlogger acquisition systems



Application

WATER

- Indicator of permeable zones and Formation water salinity.
- Long-term well monitoring.

MINERAL / ENGINEERING

- Ore identification and quality.
- Correlation

OIL & GAS

- Indication of hydrocarbons.

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Dual Induction Probe

Principle of measurement

An oscillating high-frequency magnetic field from a transmitter coil within the probe induces an alternating electrical current within the surrounding conductive formation. This current, in turn, induces voltages within receiver coils proportional to the formation conductivity. The transmitter receiver spacings determine the depth of investigation of the measurements.



Measurements / Features

- Open or cased borehole.
- Water filled

Operating Conditions

- Dry, fluid filled, or plastic cased borehole.
- Compatible with Matrix, BBOX and ALTlogger systems.
- Can be combined with other QL subs.

Technical Specifications

TOOL

Diameter: Max 45mm (1.77")
Length: 1.925m (75.78")
Weight: 7kg (15.4lbs)
Max. Temp: 70°C (158°F)
Max. Pressure: Pressure : 200bar (2900psi)

MEASUREMENT POINT

DC voltage at probe top: Min 80 VDC
 Max 160 VDC
 Nominal 120 VDC
Current: Nominal 40mA.

MEASUREMENT

Intercoil Spacing: 50cm and 80cm
Operating Frequency: 100kHz
Accuracy: < 3% F.S.
Stability: < 0,5 mS/10 deg C
Conductivity Range: 1-3000 mS/m