

TRIM Resistivity Tool

The TRIM Induction Resistivity tool utilises 20Khz Induction Resistivity technology to provide geosteering and formation evaluation information while drilling.

Description

The TRIM Resistivity tool induces a 20Khz magnetic field into the formation, which generates eddy currents that are proportional to its conductivity. These currents are measured by the TRIM sensor package, which is mounted in a side channel in the resistivity sub, affording superior protection against borehole wall impact damage and allowing easy maintenance and replacement when required. Typically sited at the bottom of the LWD string, the tool transmits data in real time for correlation and geosteering purposes and stores high resolution data downhole for later download at surface. Calibration is straightforward with sonde error and temperature corrections applied downhole in firmware. Deconvolution, borehole corrections, etc., are automatically applied by the Geolink Navigator surface software.

Features

- Wireline comparable log - 20Khz frequency.
- Straightforward calibration - sonde and borehole corrections in software.
- Side channel mounting - Sensor protection and easy maintenance.
- Depth of Investigation - equivalent to wireline deep induction.
- Good vertical resolution - equivalent to wireline medium induction.

Specification

Measurement	Range	Accuracy
Induction Resistivity	0.1 to 1000 Ohm.m nominal	+/- 0.5% @ 1.0 Ohm.m
		+/- 2.5% @ 10 Ohm.m
		(>10 Ohm.m uncertainty +/-2.5 mmho/m)
Other		
Vertical Resolution	12 to 24in (305 to 610mm)	
Diam. of Investigation	84in (2130mm)	@ Rt=1 Ohm.m
	112in (2845mm)	@ Rt=10 Ohm.m
	122in (3099mm)	@ Rt=100 Ohm.m
Max. Data Sampling	Every 8 seconds	
Memory Capacity	Resistivity Only	~390 hours
	Resistivity + Quality & Diagnostic Data	~330 hours
Battery Life	200 - 250 hours depending on operating conditions	
Collar Sizes (O.D.)	4¾ in (127mm) nominal	5.3in (135mm) at wear bands
	6¾ in (171mm) nominal	7¼in (182mm) at wear bands
	8in (203mm) nominal	8.4in (214mm) at wear bands
	9½ in (241mm) nominal	10.15in (258mm) at wear bands
Environmental		
Temperature	Operating: 0-150°C Survival: -20 - 165°C	
Pressure	15,000 psi (20,000 on request)	
Vibration	20g RMS 30-300 Hz Random, 30g 50-300 Hz Sine	
Shock	1000g 0.5ms, half sine	

