

FOUR-ARM DIPMETER PROBE

The four-arm dipmeter measures microresistivity and tool orientation data. These can be processed to determine formation dips.

PRINCIPLE OF MEASUREMENT:

The probe consists of a microresistivity section and a detachable verticality module that can also operate as a standalone logging tool. The microresistivity data is acquired by four high-resolution, button electrodes mounted on motorised caliper arms and maintained in contact with the borehole walls. Opposite caliper arms are mechanically linked and adjacent arms lie at 90° to each other. Any planar formation feature that does not lie perpendicular to the borehole axis is detected by each electrode at a different apparent depth. The four microresistivity measurements are correlated and combined with the verticality data using RG-DIP software to calculate the dip and dip direction relative to the probe axis. RG-DIP processing includes both interval-correlation and pattern-recognition options and stereoplots and histograms for advanced data analysis.

FEATURES

- Small diameter for slim-hole operations
- Operates in all orientations
- Also measures borehole verticality and drift
- Natural-gamma option

MEASUREMENTS

- Formation dip and azimuth
- Microresistivity
- XY caliper
- Borehole verticality and drift
- True vertical depth
- Borehole volume
- Natural gamma (optional)

APPLICATIONS

- Engineering/ minerals
- Stratigraphy
- Sedimentology
- Identification of faults and folding
- Fracture identification
- Correlation between wells

OPERATING CONDITIONS

- Borehole type:** Open, water-filled
- Centralisation:** Non-magnetic centralisers required for inclined boreholes and/or diameters above 150mm

SPECIFICATIONS

- Diameter:** 60mm
- Length (complete):** 3.68m
- Weight:** 36kg
- Max. temperature:** 70°C
(extended ranges available)
- Max. pressure:** 20MPa
(extended ranges available)
- Resistivity range:** 1 to 10,000 ohm-m
(extended ranges available)
- Borehole inclination:** Any
- Caliper range:** 60 to 380mm

SALES INFORMATION

- Probe:**
25 107 000 4-arm Dipmeter Probe with caliper calibrator
25 108 000 -includes natural gamma
- Accessories:**
21 025 000 Centraliser range 90 - 180mm
21 026 000 Centraliser range 180 - 260mm
21 027 000 Centraliser range 260 - 342mm
21 028 000 Centraliser range 342 - 472mm
05 003 000 RG-DIP dipmeter processing software
20 070 000 Natural-gamma API field calibrator
31 010 000 3.7MBq ¹³⁷Cs source for natural-gamma calibrator

