

## VERTICALITY PROBE

The RG verticality probe provides accurate, continuous measurements of borehole inclination and direction. These are output directly as log traces or may be processed further to produce tabular and graphical outputs of borehole position, borehole drift and true vertical depth.

### PRINCIPLE OF MEASUREMENT:

The probe includes a triaxial magnetometer to deduce the probe bearing relative to magnetic North and three accelerometers to measure inclination. The outputs from the transducers are processed by a downhole microprocessor to give final borehole inclination and azimuth data in real time.

The operation of the probe is limited in steel casing or in the presence of magnetic minerals which affect the magnetometer. Under such conditions, only borehole inclination (without directional information) can be logged. The gyroscopic verticality probe should be used in preference to the standard verticality probe in these cases.

### FEATURES

- Small diameter for slimhole operations
- Continuous borehole orientation log
- Suitable for all borehole inclinations and directions
- Optional natural-gamma measurement

### MEASUREMENTS

- Borehole inclination
- Borehole direction
- Borehole drift
- True vertical depth

### APPLICATIONS

- Water/ minerals/ engineering
- Bed-thickness estimation
- Surveying and deviation checks
- True seam depth

### OPERATING CONDITIONS

- Borehole type:** open/ plastic-cased, water / air-filled
- Centralisation:** non-magnetic centralisers required

### SPECIFICATIONS

<b>Diameter:</b>	42mm
<b>Length:</b>	1.65m
<b>Weight:</b>	7kg
<b>Max. temperature:</b>	70°C (extended ranges available)
<b>Max. pressure:</b>	20MPa (extended ranges available)
<b>Inclination:</b>	Range: 0 to 180° Accuracy: +/- 0.5° (Higher accuracy available to special order)
<b>Azimuth:</b>	Range: 0 to 360° Accuracy: +/- 1.5° (Higher accuracy available to special order)
<b>Natural-gamma detector:</b>	50mm x 25mm NaI(Tl) scintillation crystal (larger sizes available)

### SALES INFORMATION

<b>Probe:</b>	25 096 000	Verticality probe
	25 098 000	- includes natural gamma
<b>Accessories:</b>	21 015 000	Centraliser range 90 - 180mm (non-magnetic)
	21 016 000	Centraliser range 180 - 260mm (non-magnetic)
	21 017 000	Centraliser range 269 - 342mm (non-magnetic)
	21 018 000	Centraliser range 342 - 472mm (non-magnetic)
	20 070 000	Natural-gamma API calibrator without source
	30 010 000	3.7MBq <sup>137</sup> Cs source for natural-gamma calibrator

