

Full Waveform Sonic Probes

Geovista sonic probes are used to measure sonic velocities as well as the associated sonic waveforms. These data can be used for formation characterisation as well as casing cementation evaluation (CBL).

The Geovista sonic sondes consist of a ceramic-piezoelectric transmitter and two or four receivers. The larger 60 mm diameter sonde is particularly suited for deployment in large water wells. The slimmer, 50 mm diameter sonde is suitable for the smaller diameter mineral exploration and geotechnical boreholes. For both sondes, the transmitter-receiver combinations allow for the measurement of formation acoustic wave velocities and wave amplitude. The compressional (P) wave arrivals are easily identifiable from GV Full Waveform Sonic data. However, the shear (S) wave arrivals can be identified only under certain suitable borehole and formation conditions.

APPLICATIONS

- Lithology identification
- Seismic data correction
- Formation porosity
- Mining
- Geomechanics
- Cement bond evaluation (CBL)

KEY FEATURES

- Fully combinable digital probes
- Two size and diameter options
- Sondes available with 2 or 4 receivers

SPECIFICATIONS

	60mm Sonde	50mm Sonde
Weight	25 kg	16.7 kg
Length	2.34 m	2.2 m
Diameter	60 mm	50 mm
Receiver spacing	91 & 152 cm (3 ft & 5 ft)	60, 80, 100, 120 cm
Sampling rate	Variable (500 samples at 4 ms or slower)	2 μ s or 4 μ s
Resolution	12 bit; Record length: minimum 2 ms	12 bit; Record length: 1 or 2 ms
Transducers	Ceramic piezoelectric (23 kHz resonant frequency)	Ceramic piezoelectric (28 kHz resonant frequency)
Gain Settings	16 levels with selectable AGC	11 levels 0-30 db in 3 db steps
Max. Pressure	20 MPa	20 MPa
HP version	35 MPa	–
Max. Temperature	80 °C	80 °C
Centralisation	Required	Required
Accessories	In-line centralisers	In-line centralisers