

Formation Sidewall Density Sonde

This combinable sonde is suitable for quantitative formation density measurements in uncased holes. It uses a gamma ray source and a set of two detectors at different spacing to detect the gamma rays scattered by the formation.

The amount of scattered gamma rays is a function of the electron density of the formation material and hence, a function of its bulk density. This relationship is used to calibrate the density sonde and then use it to log the bulk density of the formations crossed by the borehole.

In order to optimise performance, the sonde is designed with three main features:

1. A side-walling calliper to ensure that the detector measures only the radiation scattered by the formation
2. A detector mandrel diameter that is large enough to minimise the sonde and borehole curvature mismatch and improve sonde to formation contact to minimise the effect of the borehole fluid
3. An efficient detector shield to prevent gamma rays from travelling up, inside the sonde body.

Specifications:

Weight:	26 kg	Length:	2.06 m	Diameter:	54 mm
Detector (NaI) spacing:	47 and 25 cm. Optional		additional 14 cm spacing		
Source requirement	Typically 100mCi ¹³⁷ Cs				
Density Range:	1-3 g/cc		Calliper: 60 to 350 mm		
Max. Temperature	80°C		Max. Pressure: 20 MPa		



Slimhole Density Sonde

The Geovista digital Slimhole Density Sonde can be used on its own or in combination with other Geovista sondes. It is suitable for qualitative density measurements in reduced diameter holes. It comes with two density detectors and one Natural Gamma detector.

Specifications:

Weight:	5.0 kg	Length:	1.65 m	Diameter:	38 mm
Detectors (NaI)	x 3 NaI crystals with 11, ,22 and 134 cm spacing				
Source requirement	Typically 10mCi ¹³⁷ Cs				
Max. Temperature	80°C		Max. Pressure: 20 MPa		



Geovista reserve the right to change the products' list and specifications without prior notice