

## Gamma Sensor

The Geolink Gamma Sensor uses wireline standard measurement technology in a specially ruggedised assembly to provide an accurate gamma log while drilling.

### Description

The Sondex Drilling Gamma Sensor utilises a scintillation counter (NaI Crystal) and a photo-multiplier mounted within a specially designed package which provides protection against the high levels of shock and vibration encountered in the drilling environment. The sensor is mounted in the LWD string as part of the Modular Gamma Ray Assembly (MGRA), capable of transmitting real time formation gamma ray information to surface for correlation and geosteering purposes. It also stores high resolution data downhole for later download at surface. The MGRA is calibrated against the API standard so that the log can be compared directly with wireline gamma logs. Geolink Navigator surface software automatically corrects the signal for the attenuating effects of the drill collar and tool housing.

### Features

- Calibrated to the API Standard - directly comparable to wireline logs.
- AAPL Log Scale - Facilitates correlation and geosteering.
- Ruggedised Design - Highly reliable.
- Sondex Drilling division proprietary technology, manufactured in UK.
- Geolink Navigator surface software provides user friendly interface.
- Slim hole sizes available.

### Specification

Measurement	Range	Accuracy
<b>Equivalent API Units</b>	3 <sup>1</sup> / <sub>2</sub> in DC 0-268 AAPL	+/- 1.5%
	4 <sup>3</sup> / <sub>4</sub> in DC 0-371 AAPL	
	6 <sup>3</sup> / <sub>4</sub> in DC 0-583 AAPL	
	8in DC 0-822 AAPL	
	9 <sup>1</sup> / <sub>2</sub> in DC 0-1,160 AAPL	
<b>Other</b>		
<b>Vertical Resolution</b>	6in /152 mm	
<b>Max. Data Sampling</b>	Every 8 seconds	
<b>Memory Capacity</b>	~240 hours	
<b>Battery Life</b>	~200 hours (Varies according to sensor power level)	
<b>Update Resolution</b>	Real Time	0.5' at 50'/hr - 1.5' at 150'/hr (Avg.)
	Memory	0.2' at 50'/hr - 0.7' at 150'/hr
<b>Environmental</b>		
<b>Temperature</b>	Operating: 0-150°C Survival: -20 - 165°C	
<b>Pressure</b>	15,000 psi (20,000 on request)	
<b>Vibration</b>	20g RMS 30-300 Hz Random, 30g 50-300 Hz Sine	
<b>Shock</b>	1000g 0.5ms, half sine	



Sensor Module



Scintillation Counter