



Scientific Drilling's Sci-GAIN™ is an API calibrated sensor that provides radial gamma ray and precision inclination measurements. On the Bottom Hole Assembly (BHA), Sci-GAIN is extended and positioned directly above the mud motor - giving gamma and inclination measurements that are closer to the bit than standard MWD measurements.

The precision inclination measurement can be used by the Directional Driller during the build section for early monitoring of the mud motor output; there by optimizing the drilling process.

While rotating in the lateral, continuous inclination measurements can be used to monitor and maintain the wellbore trajectory.

Sci-GAIN can be run with any of SDI's MWD and LWD systems in all configurations.

For more information on LWD solutions, contact your Scientific Drilling sales representative or visit:

<http://scientificdrilling.com/lwd>

APPLICATIONS

- + Correlating with offset logs from nearby wells
- + Early monitoring of the mud motor output
- + Selection of casing points
- + Early detection of coring points
- + Lithology identification
- + Maintaining tight control of wellbore trajectory

BENEFITS

- + Provides API gamma ray and precision inclination measurements that are 20 to 25 ft (6 to 8m) closer than standard MWD measurements
- + Works seamlessly with both MP and EM MWD systems to send real-time measurements to surface
- + Same probe is compatible with all BHA sizes

GENERAL SPECIFICATIONS

COLLAR OD	3.125 in (79.4 mm)
	3.5 in (88.9 mm)
	4.75 in (120.7 mm)
	6.5 in (165.1 mm)
	6.75 in (171.5 mm)
	8.0 in (203.2 mm)
	9.5 in (241.3 mm)
PROBE OD	38.5 in (97.79 cm)
PROBE LENGTH	30 in (762 mm)

	SLIDING	ROTATING
MAX DOG LEG (Deg/100 ft, OD)	12° (9.5 in)	5° (9.5 in)
	12° (8 in)	7° (8 in)
	19° (6.75 in)	8° (6.75 in)
	20° (6.5 in)	10° (6.5 in)
	28° (4.75 in)	12° (4.75 in)
	60° (3.5 in)	20° (3.5 in)
	65° (3.125 in)	20° (3.125 in)

MAX OPERATING TEMPERATURE	302°F (150°C)
----------------------------------	---------------

MAX OPERATING TEMPERATURE	20,000 psi (137,900 kPa) (30,000 psi available)
----------------------------------	---

	TOOL OD	GAL/MIN
FLOW RANGE PER TOOL SIZE	3.125 – 3.875 in	50 – 200
	4.750 – 6.500 in	100 – 400
	6.250 – 6.500 in	200 – 600
	5.000 – 8.000 in	250 – 1,000
	9.5 in	300 – 1,500

MEASUREMENT SPECIFICATIONS

DETECTOR TYPE	NaI Scintillation Crystal
INCLINATION ACCURACY	± 0.15° all angles
GAMMA RANGE	0 - 1,000 AAPi

*Specifications are subject to change without notice

