# **GYRO PATH® NSG** (North Seeking Gyro)

#### The most robust precision north seeking technology on the market.

The Gyro Path® NSG uses the latest in solid state nanotechnology for impressive results in the most extreme drilling conditions. The rugged design of the Gyro Path® NSG from Icefield Tools delivers consistent performance, and the longevity that customers expect after 25 years of making the world's most robust survey instruments.



- ➤ SOLID-STATE NORTH SEEKING GYROSCOPIC TECHNOLOGY
- ▶ PRECISION ACCURACY IN UNDER 1 MINUTE
- ➤ UNAFFECTED BY MAGNETIC INTERFERENCE
- ▶ RUGGED DESIGN RELIABLE IN EXTREME DRILLING ENVIRONMENTS
- ➤ REAL-TIME AND MEMORY CAPABILITIES
- ➤ HIGH TEMPERATURE OPTION
- ➤ USER FRIENDLY SOFTWARE

### **APPLICATIONS**

- ➤ VERTICAL / HORIZONTAL SURVEYS
- ➤ MEMORY SURVEYS
- ➤ REAL-TIME SURVEYS
- > GYRO STEERING & ORIENTATIONS
- ➤ GYRO MULTI-SHOT SURVEYS
- > SURVEYS INSIDE THE RODS

### **PERFORMANCE**

- ➤ AZIMUTH ACCURACY = +/- 0.1 DEGREES
- ➤ GYRO TOOL-FACE ACCURACY = +/- 0.1 DEGREES
- ➤ INCLINATION ACCURACY = +/- 0.1 DEGREES
- ➤ GRAVITY TOOL-FACE ACCURACY = +/- 0.1 DEGREES
- ► BATTERY LIFE = GREATER THAN 30 HOURS
- ➤ GYRO COMPASS TIME ≤ 1 MINUTE = +/- 0.75 DEGREE
- ➤ MEASUREMENT TIMES AS FAST AS 5 SECONDS





THE PATH TO PRECISE BOREHOLE SURVEY SOLUTIONS

TECHNICAL	EDECIFICATIONS.				
TECHNICAL SPECIFICATIONS:  SENSOR TYPE: INCLINATION					
TYPE:	TRIAXIAL				
RANGE:	0-180° (APPLICATION DEPENDANT)				
ACCURACY:	± 0.1°				
SHOCK:	6000G				
SENSOR TYPE: GYROSCOPE					
TYPE:	SOLID STATE				
ACCURACY:	± 0.1°				
SHOCK:	2000G				
BARE INSTRUMENT SIZE					
DIAMETER:	30 mm (1.18")				
LENGTH (MEM):	1.54 m (60.67")				
LENGTH (WIRE):	1.29 m (50.8")				
WEIGHT:	4.05 kg (8.9 lbs)				
IN STANDARD PRESSU	IRE BARREL				
DIAMETER:	38.1 mm (1.5")				
LENGTH:	2.20 m (87")				
WEIGHT:	12.55 kg (27.6 lbs)				
PRESSURE (MAX):	6000 psi				
OPERATING TEMP:	-30° C TO +85° C (-22°F TO +185°F)				
IN HIGH PRESSURE BARREL					
DIAMETER:	44.45 mm (1.75")				
LENGTH:	1.95 m (77")				
PRESSURE (MAX):	18000psi				
OPERATING TEMP:	-30° C TO +85° C (-22°F TO +185°F)				
IN THERMAL HOUSING					
DIAMETER:	46 mm (1.81")				
LENGTH:	2.27 m (89.67")				
PRESSURE (MAX):	18000 psi				
RATED FOR 6 HOURS AT 175° C (350°F)					



## **Gyro Path® NSG Software Options**

	GYRO PATH® NSG SOFTWARE LICENSES			
GYRO PATH LICENSE FEATURES	Vertical Basic	Mining 2.0	Mining 3.0	Full
<b>Vertical Applications:</b> Dip of -30 to -90 or +30 to +90 (0-60° from vertical)	1	✓	1	✓
<b>Horizontal Applications:</b> Dip of -30 to +30 (60-120° from vertical)	x	✓	✓	✓
MEASUREMENT TIMES / ACCURACY		'		
5 secs = +/- 3°	✓	✓	✓	✓
15 secs = +/- 1.5°	✓	1	1	✓
30 secs = +/- 1°	X	x	1	✓
1 min = +/- 0.75°	X	x	✓	✓
1.5 min = +/- 0.6°	X	x	✓	✓
2 min = +/- 0.5°	X	X	✓	✓
3 min = +/- 0.35°	X	x	X	✓
4 min = +/- 0.3°	X	x	X	✓
8 min = +/- 0.1°	X	X	x	✓
Steering Data While Drilling	X	X	x	✓
MEMORY MODE FEATURES				
Time at Rest: Minimum 15 secs (required time for measurement to begin)	✓	x	×	×
Time at Rest: Minimum 5 secs (faster measurements)	X	1	1	1
Maximum Memory Survey Time 3 hours	✓	1	x	X
No Maximum Memory Survey Time (battery dependent)	X	X	✓	1
SOFTWARE LICENSE TYPES AVAILABLE				
Permanent License (No Expiration)	✓	✓	✓	✓
TEMPORARY LICENSES - (PAY AS NEEDED)				
Annual License (Expires after 1 Year)	✓	✓	✓	✓
Quarterly License (Expires after 90 Days)	✓	1	1	✓
Monthly License (Expires after 30 Days)	✓	1	✓	✓

