# **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.



### **FEATURES**

- ➤ SOLID-STATE NORTH SEEKING GYROSCOPIC TECHNOLOGY
- ➤ PRECISION ACCURACY IN UNDER 1 MINUTE
- ➤ UNAFFECTED BY MAGNETIC INTERFERENCE
- > RUGGED DESIGN RELIABLE IN EXTREME DRILLING ENVIRONMENTS
- > SMALL SIZE ALLOWS FOR USE WITH MEDIUM AND SMALLER SIZED RIGS
- ➤ USER FRIENDLY SOFTWARE
- MAY BE OPERATED BY IN-HOUSE OR CONTRACTED GUIDANCE PERSONNEL
- ➤ NO SURFACE COIL NEEDED

#### **APPLICATIONS**

- ➤ GYRO STEERING & ORIENTATIONS
- ➤ RIVER CROSSINGS
- ➤ HIGHWAY CROSSINGS
- ➤ SWAMP / WETLANDS CROSSINGS
- ➤ SHORE APPROACHES
- ➤ RAILROAD CROSSINGS
- ➤ URBAN AREA CROSSINGS
- ➤ VERIFICATION SURVEYS
- ➤ MEMORY SURVEYS

#### 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
- MEASUREMENT TIMES AS FAST AS 5 SECONDS





THE PATH TO PRECISE BOREHOLE SURVEY SOLUTIONS

TECHNICAL	CDECIFICATIONS.					
TECHNICAL SPECIFICATIONS:  SENSOR TYPE: INCLINATION						
TYPE:						
TYPE:	TRIAXIAL 0-180°					
RANGE:	(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	RE 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 BA	RREL					
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	Г 175° С (350°F)					



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

	GYRO PATH® NSG SOFTWARE LICENSES					
GYRO PATH LICENSE FEATURES	Horizontal Basic	Horizontal 2.0	Horizontal 3.0	Horizontal 4.0	Full	
Vertical Applications: (0-60° from vertical)	X	X	X	x	✓	
Horizontal Applications: (60-120° from vertical)	✓	✓	✓	✓	✓	
MEASUREMENT TIMES / ACCURACY						
5 secs = +/- 3°	1	✓	✓	✓	✓	
15 secs = +/- 1.5°	1	✓	✓	✓	✓	
30 secs = +/- 1°	1	✓	✓	✓	✓	
1 min = +/- 0.75°	1	✓	✓	1	✓	
1.5 min = +/- 0.6°	1	✓	✓	1	✓	
2 min = +/- 0.5°	1	✓	✓	1	✓	
3 min = +/- 0.35°	1	✓	✓	1	✓	
4 min = +/- 0.3°	1	✓	✓	1	✓	
8 min = +/- 0.1°	х	x	✓	1	✓	
Steering Data While Drilling	1	✓	✓	1	✓	
MEASURED DEPTH RANGE (MEASURED LENGTH O	F BORE)					
0 - 1000 ft (0 - 305m)	1	✓	✓	✓	✓	
0 - 2000 ft (0 - 610m)	X	✓	✓	1	✓	
0 - 3000 ft (0 - 915m)	X	x	✓	1	✓	
Unlimited Measured Depth	X	X	X	1	✓	
SOFTWARE LICENSE TYPES AVAILABLE						
Permanent License	✓	✓	✓	✓	✓	
TEMPORARY LICENSES - EXPIRING (PAY AS NEEDE	D)					
Annual License (1 Year)	✓	✓	✓	✓	✓	
Quarterly License (90 Day)	1	✓	✓	✓	✓	
Monthly License (30 Day)	1	✓	✓	1	✓	

