



NBM-019A

NEAR BIT INCLINATION MODULE

The Near Bit Orientation Module is the latest in a range of Azimuth sensors specifically aimed at advancing the technology of downhole directional measurements for the MWD market.

This sensor provides accurate and repeatable Inclination measurements using the latest in proprietary Azimuth MEMS Accelerometer technology. Packaged robustly in a small footprint (0.75" x 6.0" nom.), the sensor is designed to withstand the rigours of Near Bit shock and vibration.

The Near Bit Module is qualified to 150°C (302F), and tested under the same rigorous conditions expected of all Azimuth sensors. Available in both 'Static Inc' and 'Continuous Inc' forms, the module provides accurate Inclination measurements close to the bit, in a form which can be easily accommodated in annular type subs.

Features

- Ultra-small form
- Continuous INC option
- Low power consumption
- High-shock and vibrate specification
- Robust MEMS Accelerometers
- Accurate, repeatable Inclination measurements
- Calculated INC output
- Serial Communication
- Programmable filters
- Full 3-Axis Accelerometers
- 24-Bit Resolution
- Constant data 'Streaming' option

Applications

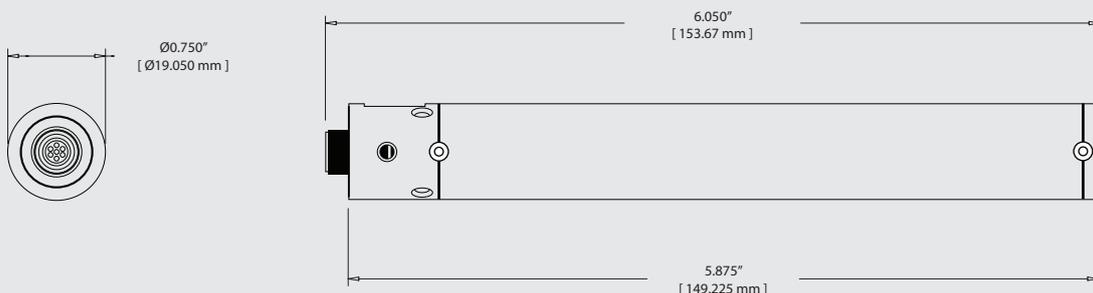
- Near Bit Systems
- Rotary Steerable Systems
- Instrumented Motor Implementations

Benefits

- Increased robustness near bit
- Reduced cost
- Reduced 'downtime'
- Precision measurements close to bit
- Ease of implementation (form)



Description	Value	Units	Comments
Sensor Performance			
Inclination Accuracy	125°C 150°C	+/-0.15° +/-0.2°	Deg
Inclination Repeatability		+/-0.05	Deg
TF/Rotation at >5° Inc - Accuracy		+/-0.5	Deg
TF/Rotation at >5° Inc - Repeatability		+/-0.05	Deg
Continuous INC		TBA	Deg
Electrical			
Operating Voltage		+12 to +40	Volts
Power Consumption		0.21	Watt
ADC Resolution		24	Bits
Interface		Serial TTL	3.3V or 5.0V Option
Baud Rate		9600 - 153600	Baud
Operating Modes		Master-Slave, Express Survey or Streaming	
Output		INC, Temp, Raw Fields, Gt	
Connector		7-Pin Circular MDM	
Mechanical			
Length		6.05 (153.67mm)	Inches(mm)
Diameter		0.75 (19.05mm)	Inches(mm)
Weight		0.18 (0.08)	lbs (Kg)
Environmental			
Operating Temperature		-25 to 150	°C
Survival Temperature		-40 to 175	°C
Vibration		30 20	g pk g rms
			50 – 1000Hz 50 – 1000Hz



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Product Support

Azimuth Oilfield Systems Ltd. provides a responsive repair, calibration and product support service. Experienced personnel are available to troubleshoot or repair equipment, and provide general product technical assistance. If you need effective sensor support for your business, then contact support@azimuthmwd.com for more information.

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