Product Specification Sheet

NBM-19B NEW

NEAR BIT CONTINUOUS INC MODULE

The NBM-19B is an Ultra-small (0.75" x 6.0" Nom.) Dynamic Inclination Module delivering 'next-level' Continuous INC accuracy. The sensor employs 3-axes of highly ruggedised MEMS devices and 24-Bit data acquisition to delivery industry leading Continuous INC precision. Azimuth's proprietary dynamic algorithm has been honed for high shock (up to 50G rms) and high torque applications at any angle from vertical to horizontal.

The module provides fully computed outputs or raw axes if required. Communications mode and data frequency is fully user configurable and the unit is fully supported with an accompanying PC Software application.

The NBM-19B module is qualified and tested under the same rigorous conditions expected of all Azimuth sensors.

Features

- Small Form
- Low power consumption
- Computed outputs
- TTL/RS232 Communciations
- Survey Accuracy Static INC
- 24-Bit Resolution
- Cont_INC Data Streaming
- Ruggedised MEMS Accelerometers
- 3-Axes Accelerometers

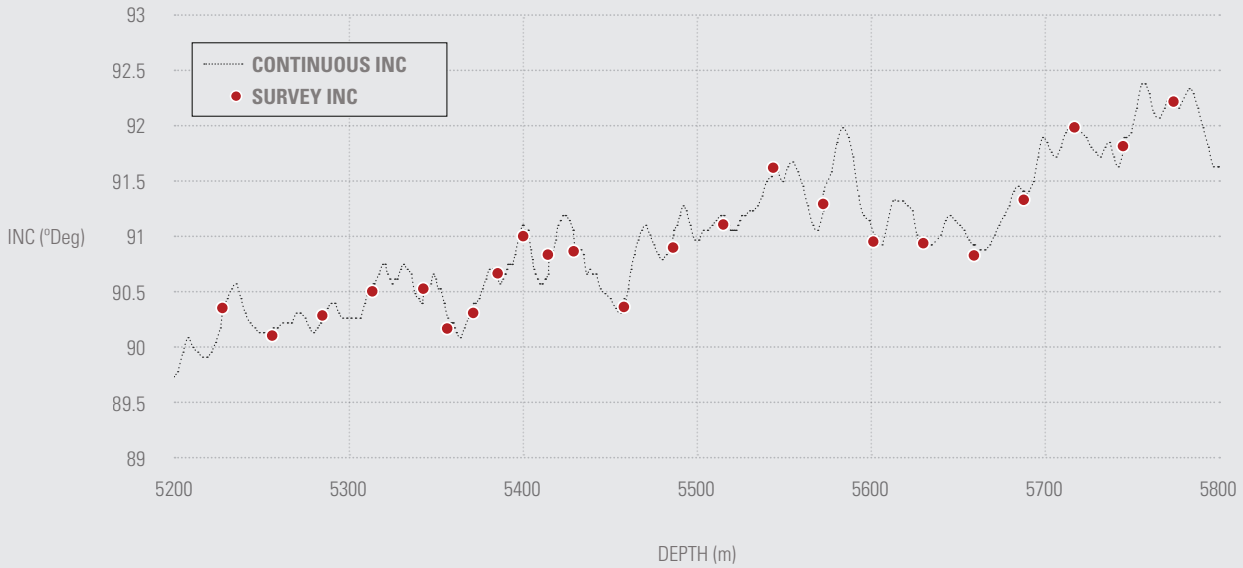
Applications

- Near Bit Systems
- Instrumented Motors
- Rotary Steerable Systems
- Near Pulser Configurations

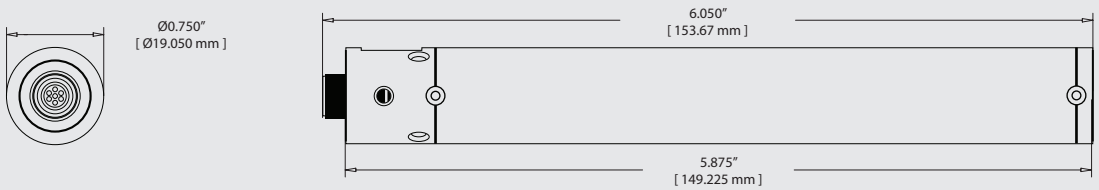
Benefits

- Next level Continuous INC Accuracy
- Extended Range: 50G rms vibration rating
- 0.1° Degree Cont_INC Accuracy[1]
- Ultra-miniature size

AZIMUTH - CONTINUOUS INC vs SURVEY INC (FIELD DATA)



Description			Value	Units	Comments
Sensor Performance					
Static Inclination Accuracy		125ºC 150ºC	+/-0.1º +/-0.15º	Deg	
Inclination Repeatability			+/-0.05	Deg	
TF/Rotation at >5º Inc - Accuracy			+/-0.5	Deg	
TF/Rotation at >5º Inc - Repeatability			+/-0.05	Deg	
Continuous INC Accuracy					
Inclination	Vibration	Rotating			
10 - 30°	30Grms	N	+/-0.1	Deg	
10 - 30°	30Grms	Y	+/-0.25	Deg	
10 - 30°	50Grms	N	+/-0.1	Deg	
10 - 30°	50Grms	Y	+/-0.25	Deg	
30 - 90°	30Grms	N	+/-0.1	Deg	
30 - 90°	30Grms	Y	+/-0.1	Deg	
30 - 90°	50Grms	N	+/-0.15	Deg	
30 - 90°	50Grms	Y	+/-0.1	Deg	
Electrical					
Operating Voltage			+12 to +40	Volts	
Power Consumption			0.21	Watt	
ADC Resolution			24	Bits	
Interface			Serial TTL		
Baud Rate			9600 - 153600	Baud	
Operating Modes			Master-Slave, Express Survey or Streaming		
Data Output			Cont_INC, Survey INC, Temp, Raw Fields, Gt, GTF		
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	ºC	
Survival Temperature			-40 to 165	ºC	
Vibration			50	g rms	50 – 1000Hz
Shock			2000	g	0.5mS Half Sine
Notes: 1. See table in Specification for expected Continuous INC accuracy.					



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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.