



IOM-35D

μG MEMS ACCELEROMETER INTEGRATED ORIENTATION MODULE

The μG MEMS Integrated 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 directional measurements using the latest in proprietary Azimuth MEMS Accelerometer technology, but partnered with our industry leading flux-gate Magnetometers. This hybrid of technologies means cost savings can be achieved for the end-user, but also improvements are delivered with increased robustness against high shock and vibration.

The μG MEMS sensor is qualified to 150°C (302F), and tested under the same rigorous conditions expected of all Azimuth sensors. The μG IOM is a fully integrated package with computed and raw outputs available on a number of interface types.

Features

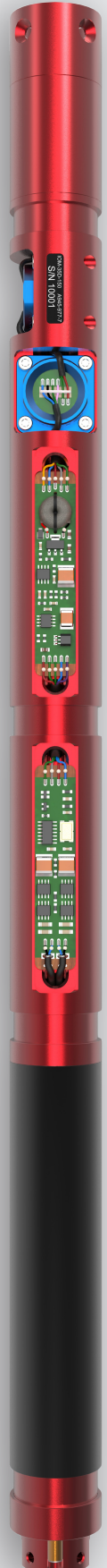
- Low power consumption
- Continuous INC/AZI
- High-shock and vibe specification
- Robust MEMS Accelerometers
- Accurate, repeatable Inclination measurements
- Calculated/Cont INC output
- Serial Communication
- Programmable filters
- 3-Axis MEMS Accelerometers
- 24-Bit Resolution
- Constant data 'Streaming' option
- RPM Output

Applications

- MWD/LWD Borehole Survey
- OEM implementation in MWD Systems

Benefits

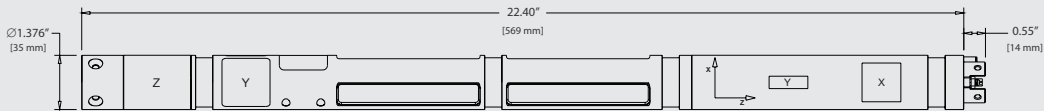
- Increased robustness
- Reduced cost
- Reduced 'downtime'
- Reduced LIH costs



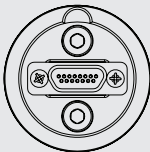
Quality, precision and reliability.

www.azimuthmwd.com

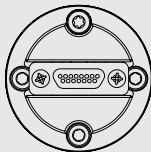
Description		Value	Units	Comments
Sensor Performance				
Inclination Accuracy	125°C	+/-0.15°	Deg	
	150°C	+/-0.2°		
Inclination Repeatability		+/-0.05	Deg	
TF/Rotation at >5° Inc - Accuracy		+/-0.5	Deg	
TF/Rotation at >5° Inc - Repeatability		+/-0.05	Deg	
Azimuth at >5° Inc - Accuracy		+/-1.0	Deg	
Azimuth at >5° Inc - Repeatability		+/-0.5	Deg	
Electrical				
Operating Voltage		+12 to +40	Volts	
Active Power Consumption		<0.75	Watt	Accel & Mags powered
Quiescent Power Consumption		0.4	Watt	
Interface		Serial TTL/RS485/ CanBus		
Baud Rate		1200 – 153600	Baud	9600 Baud - default
Protocol		Proprietary		
ADC Resolution		24	Bit	
Output		Computed/Raw/ Cont INC/AZI		
Operating Modes		Master/Slave, Streaming Express Survey		
Mechanical				
Length		22.4 (569.0mm)	Inches(mm)	
Diameter		1.376 (35.0mm)	Inches(mm)	Excludes lateral o-rings
Environmental				
Operating Temperature		-25 to 150	°C	
Survival Temperature		-40 to 175	°C	
Vibration		30	g pk	50 – 1000Hz
		20	g rms	50 – 1000Hz
Shock		1000	g	0.5mS Half Sine



Uphole
MDM Orientation



Downhole
MDM Orientation



Contact Us

Azimuth Oilfield Systems Limited,
Unit 1 Kintore Business Park
Kintore, Aberdeenshire
AB51 0YQ, United Kingdom

T: +44 (0)1224 773635
E: info@azimuthmwd.com
www.azimuthmwd.com

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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