



DOM-35D

μG MEMS Accelerometer Digital Orientation Module

The μG MEMS sensor 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 150DegC (302F), and tested under the same rigorous conditions expected of all Azimuth sensors. The DOM-35D is designed to be backwardly compatible with Tensor-based systems and operates with the leading control/processor board units.

Features

- Low power consumption
- High-shock and vibrate specification
- Robust MEMS Accelerometers
- Accurate, repeatable Inclination measurements
- Compatible with leading MPUs
- On-board coefficient storage
- Independent Mag and Accel switching

Applications

- Drop-in Tensor replacement
- MWD/LWD Borehole Survey
- OEM implementation in MWD Systems

Benefits

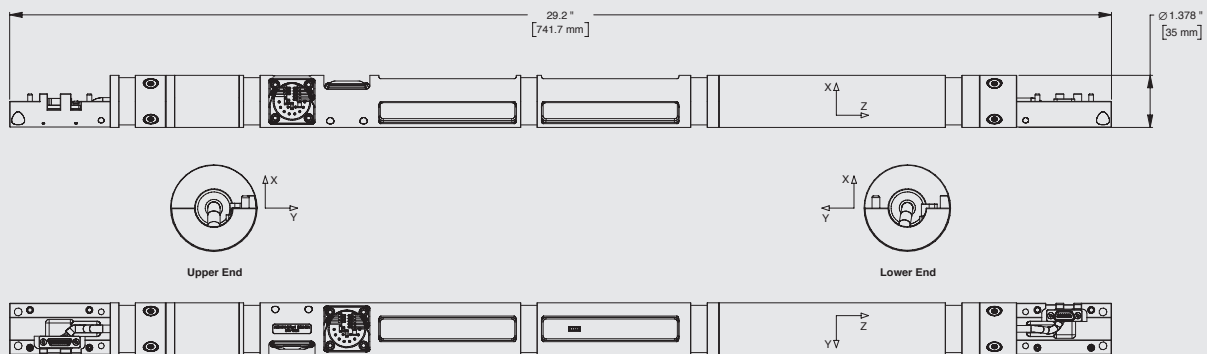
- Increased robustness
- Reduced cost
- Reduced 'downtime'
- Reduced LIH costs



Quality, precision and reliability.

www.azimuthmwd.com

Description	Value	Units	Comments
Sensor Performance			
Inclination Accuracy	125°C 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
Azimuth at >5° Inc - Accuracy		+/-1.0	Deg
Azimuth at >5° Inc - Repeatability		+/-1.0	Deg
Electrical			
Operating Voltage		+/-12.5 to +/-15.5	Volts (+/-13V nominal)
Active Power Consumption		<0.5	Watt Accel & Mags powered
Quiescent Power Consumption		75	mWatt
Interface		SPI I2C	ADC EEPROM
ADC Resolution		12	
EEPROM		16	KBit Internal K-Factor storage
Mechanical			
Length		29.2 (741.7mm)	Inches(mm)
Diameter		1.378 (35.0mm)	Inches(mm) Excludes lateral o-rings
Environmental			
Operating Temperature		-25 to 150	°C
Survival Temperature		-40 to 175	°C
Vibration		30 20	g pk g rms 50 – 1000Hz 50 – 1000Hz
Shock		1000	g 0.5mS Half Sine



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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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