



XOM-35A

185°C

Integrated MPU/TPS Orientation Module

The XOM-35A is the latest Orientation Module development from Azimuth incorporating the entire MPU¹ functionality for Tensor based MWD systems within a single integrated module. Qualification and calibration to 185DegC ensures performance in the most demanding 'hot-hole' applications.

Utilising 185DegC Quartz-Flex Accelerometers (or MEMS lo-temp² option) and proprietary high temperature 'flux-gate' Magnetometers, the sensor is designed to operate reliably at 185DegC and provide accurate and repeatable measurements including Rotational and Continuous INC.

Combined with the latest features of a fully integrated MPU for QBus support and M-Ary telemetry, the unit delivers a highly integrated and cost-effective solution for the user. At a total length of 29.2", the unit integrates both the MPU and TPS, eliminating separate units and their associated cost and interfacing. The XOM-35A sensor is qualified and tested under the same rigorous conditions expected of all Azimuth sensors and is fully compatible with existing Tensor based MWD systems.

¹ – Incorporates KeyDrill MPU technology

² – MEMS option Operating Temperature 150DegC

MWD Features

- QBus compatible
- M-Ary Pulse Encoding
- High-Speed telemetry
- Pressure/Rotary Downlink
- Custom Sensor – Generic Variables
- Azimuthal Gamma Support
- Rotational/Continuous INC/AZI
- 2-Axes Shock/Vibration
- RPM & Stick/Slip Detection
- Diagnostic recording

Sensor Features

- Low power consumption
- High-shock and vibe specification
- 190°C/185°C Quartz-Flex Accelerometers
- 200°C Precision Flux-Gate Magnetometers
- Independent Mag/Accel switching
- On-board coefficients

Applications

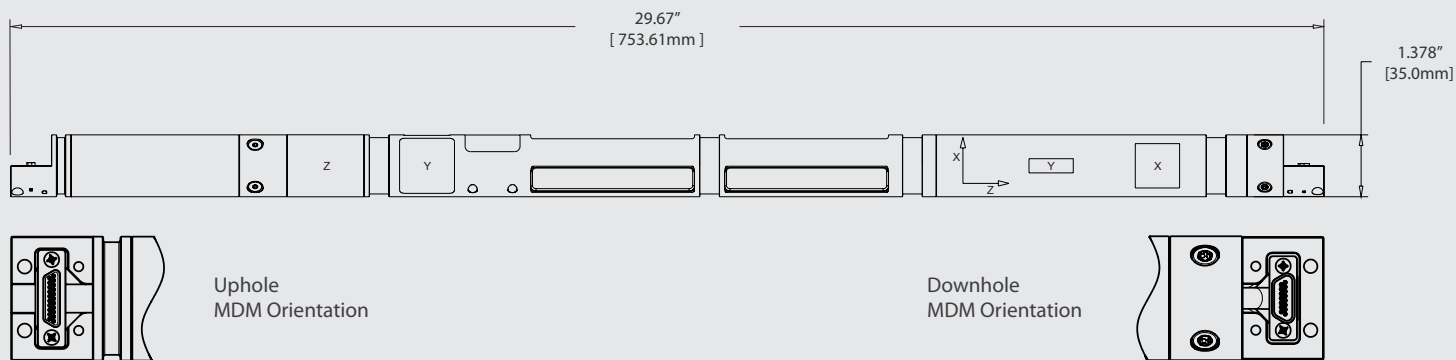
- MWD/LWD Borehole Survey
- Geothermal applications



Quality, precision and reliability.

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Description	Value	Units	Comments
Sensor Performance			
Inclination Accuracy	+/-0.1°	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	+/-0.5	Deg	
Electrical			
Operating Voltage	+15 to +40	Volts	
Active Power Consumption	0.9	Watt	Accel and Mags powered, nominal
Quiescent Power Consumption	0.3	Watt	Accel and Mags disabled, nominal
Interface	SPI,12C		ADC and EEPROM
Protocol	QBus		
ADC Resolution	12	Bit	
Mechanical			
Length	29.67 (753.61)	Inches(mm)	
Diameter	1.378 (35.0)	Inches(mm)	Excludes lateral o-rings
Weight	2.65 (1.2)	lbs (Kg)	
Environmental			
Operating Temperature	-25 to 185	°C	See note 1
Survival Temperature	-40 to 190	°C	
Vibration	30 20	g pk g rms	50 – 1000Hz 50 – 1000Hz
Shock	1000	g	0.5mS Half Sine
Note: 1. Options available for 175DegC (QFlex) and 150DegC (MEMS) modules			



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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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