Precision Triaxial Fluxgate Magnetometer FGM-301

Description:

The FGM-301 is the best product for measuring DC and low frequency magnetic fields in three dimensions. This is a compact magnetic sensing device suitable for a wide variety of magnetic field measurement applications. Being an analog sensor, the FGM-301 provides high resolution and low signal delay. This product is far more stable and linear than magneto-resistive and magneto-inductive magnetometers.

Watson Industries has been developing state-of-the-art fluxgate magnetometers for almost thirty years to provide the FGM-301. As a result, this magnetometer is relied on for precision measurements in very critical projects around the world, including near the north and south poles.

Watson Magnetometer features:

- High Accuracy
- High Resolution
- High Reliability
- Low Noise
- Low Power
- Small Size and Weight
- Two Year Warranty
- Engineering Support

Applications:

- Navigation systems
- Magnetic field measurements
- Geological mapping
- Precision heading reference
- Solar Storm Monitoring

Options:

Custom Voltage inputs and/or outputs, calibration and remote (electronics separated from sensor).

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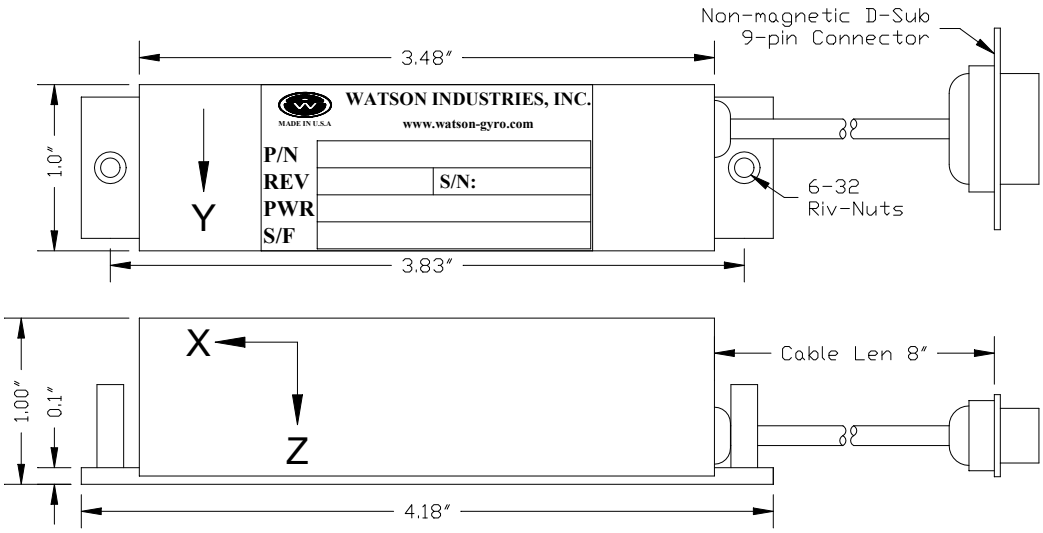
e-mail: support@watson-gyro.com Website: www.watson-gyro.com

FGM-301 Specifications

Magnetic		
Range: X, Y, Z	±700 mGauss	±70,000 nTesla
Analog Scale Factor:	±200 mGauss/V	±3.5V Output
Scale Factor Accuracy:	2%	
Scale Factor Matching Between Axes:	< 0.2%	
Scale Factor Temp Coefficient:	±100 ppm per °C	Typical
Bias: X, Y, Z	< 5 mGauss	
Non-Linearity:	< 0.01%	
Bandwidth:	30 Hz	
Noise:	< 0.3 mGauss rms (Typical)	<10 uGauss in 1 Hz bandwidth
Output Ripple:	< 0.2 mGauss P-P	
Environmental		
Temperature: Operating	-50°C to +85°C	
Temperature: Storage	-50°C to +85°C	
Vibration: Operating	3g rms	100 Hz to 1 KHz
Vibration: Survival	4g rms	100 Hz to 1 KHz
Shock: Survival	200g	10mS ½ sine wave
Electrical		
Input Power:	6 to 16VDC	< 1W
Input Current:	55mA	
Analog Output:	±3.5VDC	
Analog Output Impedance:	1000 Ohm	
Physical		
Axis Alignment:	< 0.3°	
Size: Including Mounting Flanges	1.0W x 4.18"L x1.0"H	2.5 x 10.6 x 2.5 (cm)
Weight:	3.1 oz	88 grams
Connection:	9 pin male "D" subminiature	
Life:	> 50,000 Hrs MTBF	

- Specifications are subject to change without notice.
- This product may be subject to export restrictions. Export Classification ECCN EAR99.

Dimensions:



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