BILLINGSLEY AEROSPACE & DEFENSE

HFM500-MIL

HIGH FIELD TRIAXIAL FLUXGATE MAGNETOMETER

FEBRUARY 2008 SPECIFICATIONS

Description:	Triaxial Fluxgate Magnetometer used for measurement of large magnetic fields, has low noise and excellent linearity, and can be configured to measure field up to ± 15 Gauss.
Axial Alignment:	Orthogonality better than ± 1°
Input Voltage Options:	Unipolar + 18 to 35 V; Protected against reverse voltage; Surge protected with clamps in 1 picosecond with pulse power to 600 Watts; Galvanically isolated power converter.
Input Current:	28mA t Zero Field = 1.5 mA/Gauss/Axis
Feedback Ripple Current:	5 mA Peak to Peak (Minimizes crosstalk between magnetometers when used in arrays.)
Field Measurement Range:	± 500 μT (Other Ranges Available)
Accuracy:	± 0.75% of Full Scale (0.5% Typical)
Linearity:	± 0.007% of Full Scale
Sensitivity:	20 μV/nT
Scale Factor Temperature Shift:	0.01% Full Scale/°C
Noise:	≤20 pT RMS/ Hz @1 Hz (≤ 10 pT Option Available)
Output Ripple:	3 mV Peak to Peak @ 2nd Harmonic
Analog Output @ Zero Field:	± 0.020 V
Zero Shift with Temperature:	< 1 nT/°C
Susceptibility to Perming:	± 8 nT Shift with ± 5 Gauss Applied ± 30 nT Shift with ± 15 Gauss Applied
Output Impedance:	332 Ω ± 5%
Frequency Response:	-3 dB @ > 500 kHz/ > 4 kHz Available with increased Output Ripple
Overload Recovery:	Unconditional stability with any load capacitance; Will drive any length cable.
E M I:	Minimizes conducted/radiation emissions and susceptibility
Random Vibration:	20G RMS 20 Hz to 2 KHz
Temperature Range:	- 40° to + 85 °C
Acceleration:	60G
Weight:	182 g
Size:	3.51 cm x 3.51 cm x 15.37cm
Chasis:	Aluminium with ground jumper option for optimum EMI shielding
Connector:	9 PIN MALE "D" TYPE; Female Mating Connector Supplied

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