

BILLINGSLEY AEROSPACE & DEFENSE

TFM100-G2 ULTRA MINIATURE TRIAXIAL FLUXGATE MAGNETOMETER

FEBRUARY 2008 SPECIFICATIONS

Description:	Ultra Miniature Triaxial Fluxgate Magnetometer for spacecraft attitude control, general magnetic measurements in the laboratory or field applications such as remotely piloted vehicles, data buoys, sounding rockets, etc. This instrument is designed for the highest reliability and uses no fuses, potentiometers or switches.
Axial Alignment:	Orthogonality better than $\pm 1^\circ$
Input Voltage Options:	15 to 34 VDC @ 25mA
Field Measurement Range:	$\pm 100 \mu T = \pm 10V$
Accuracy:	$\pm 0.75\%$ of full scale (0.5% typical)
Linearity:	$\pm 0.015\%$ of full scale
Sensitivity:	100 $\mu V / nT$
Scale Factor Temperature Shift:	0.007% full scale/ $^\circ$ Celsius
Noise:	≤ 12 pT RMS/ Hz @1 Hz (≤ 10 pT Option Available)
Output Ripple:	3 mV peak to peak @ 2nd harmonic
Analog Output @ Zero Field:	± 0.025 V
Zero Shift with Temperature:	± 0.6 nT/ $^\circ$ Celsius
Susceptibility to Perming:	± 8 nT shift with ± 5 Gauss applied
Output Impedance:	332 $\Omega \pm 5\%$
Frequency Response:	3 dB @ > 500 Hz (to > 4 KHz wideband)
Overload Recovery:	± 5 Gauss slew < 2 milliseconds
E M I:	Designed to meet CEO1, CEO3, REO2, CSO1, CSO2, CSO6, RSO1, RSO2, RS03
Random Vibration:	$> 20G$ RMS 20 Hz to 2 KHz
Temperature Range:	$- 55^\circ$ to $+ 85^\circ$ Celsius operating
Acceleration:	$> 60G$
Weight:	100 grams
Size:	3.51 cm x 3.23 cm x 8.26 cm
Connector:	9 pin male "D" type, female mating connector supplied