

BILLINGSLEY AEROSPACE & DEFENSE



TFM 100S

SPACECRAFT ATTITUDE CONTROL TRIAXIAL FLUXGATE MAGNETOMETER

FEBRUARY 2008 SPECIFICATIONS

Radiation Tolerance:	> 300 kRADs (with 1.59 mm cover) > 100 kRADs (with 0.79 mm cover) Option
Axial Alignment:	Orthogonality better than $\pm 1^\circ$; $\pm 0.5^\circ$ special; calibration data provided to $\pm 0.1^\circ$
Input Voltage:	+ 15 to + 45 VDC + 45 to + 125 VDC Option
Input Current:	20 mA at 28 V
Isolation:	between power and signal ground > 200 M Ω at 500 VDC
Field Measurement Range:	$\pm 100 \mu\text{T}$
Accuracy:	$\pm 0.5\%$ of full scale
Linearity:	0.015% of full scale
Sensitivity:	100 $\mu\text{V} / \text{nT}$
Scale Factor Temperature Shift:	.0075% full scale / $^\circ\text{C}$
Output Ripple:	3 mV peak to peak @ 2nd harmonic
Analog Output @ Zero Field:	$\pm 0.025\text{V}$
Zero Shift with Temperature:	$\leq 1.0 \text{ nT} / ^\circ\text{C}$
Susceptibility to Perming:	$\pm 25 \text{ nT}$ shift with ± 5 Gauss applied
Output Impedance:	332 $\Omega \pm 5\%$
Frequency Response:	- 3 dB @ > 150 Hz
E M I:	CEO1, CEO3, REO2, CSO1, CSO2, CSO6, RSO1, RSO2, RSO3
Random Vibration:	20G RMS (20 Hz to 2 KHz)
Shock:	>230 G
Temperature Range:	- 40 $^\circ$ to +85 $^\circ\text{C}$
Weight:	200 grams (1.59 mm cover) 166 grams (0.79 mm cover) Option
Size:	3.66 cm x 3.58 cm x 15.44 cm
Connector:	NON-MAGNETIC 9 PIN "D" TYPE