

BILLINGSLEY AEROSPACE & DEFENSE

TFM100G4-UWH / TFM200G4-UWH UNDERWATER TRIAXIAL FLUXGATE MAGNETOMETER

FEBRUARY 2008 SPECIFICATIONS

Axial Alignment:	Orthogonality better than $\pm 1^\circ$
Input Voltage Options:	24-34 VDC
Input Current:	< 25 mA at 28 V DC
Surge Suppression:	Power and Signal Lines Galvanically Isolated All lines are protected to > 1000V Transients
Field Measurement Range:	$\pm 100 \mu\text{T} = \pm 10.0 \text{ V}$ (TFM100G4-UWH) $\pm 200 \mu\text{T} = \pm 10.0 \text{ Volts}$ (TFM200G4-UWH)
Accuracy:	$\pm 0.5\%$ of full scale
Linearity:	$\pm 0.0035\%$ of full scale
Sensitivity:	100 $\mu\text{V} / \text{nT}$ (TFM100G4-UWH) 200 $\mu\text{V} / \text{nT}$ (TFM200G4-UWH)
Scale Factor Temperature Shift:	$\pm 0.002\%$ full scale / $^\circ\text{C}$
Noise:	20 pT RMS / Hz @1 Hz
Output Ripple:	3 mV peak to peak @ 2nd harmonic
Analog Output @ Zero Field:	$\pm 0.020 \text{ Volt}$
Zero Shift with Temperature:	$\pm 1 \text{ nT} / ^\circ\text{C}$ ($\pm 0.2 \text{ nT} / ^\circ\text{C}$ Typical)
Susceptibility to Perming:	$\pm 20 \text{ nT}$ shift with $\pm 5 \text{ Gauss}$ applied
Output Impedance:	332 $\Omega \pm 5\%$ (can drive > 3500' of cable)
Frequency Response:	3 dB @ $\geq 3.5 \text{ kHz}$
Overload Recovery:	$\pm 5 \text{ Gauss}$ slew < 2 milliseconds
E M I:	CEO1, CEO3, REO2, CS01, CSO2, CSO6, RSO1, RSO2, RSO3
Random Vibration:	> 20G RMS 20 Hz to 2 KHz
Temperature Range:	- 55 $^\circ$ to + 85 $^\circ$ Celsius operating
Acceleration:	> 60G
Weight:	44.35 ounces
Size:	22" x 1.9" 53 cm x 4.8 cm
Hydrostatic Pressure:	> 470 PSI
Connector:	8 pin male HRS-405-08P/T-01M