## **CMG-40T CALIBRATION SHEET**

WORKS ORDER:

4584

DATE:

01/08/08

SERIAL NUMBER:

T4P98

TESTED BY:

S. Goddard

	Velocity Output V/m/s	Mass Position Output (Acceleration output) V/m/s <sup>2</sup>	Feedback Coil Constant Amp/m/s <sup>2</sup>
VERTICAL	1003	15	0.004559
NORTH/SOUTH	987	15	0.004330
EAST/WEST	1010	14	0.004166

Power Consumption:

50mA @ +5V input

Calibration Resistor:

51000

NOTE: A factor of  $2 \times 2 \times 10^{-5}$  must be used when the sensor outputs are used differentially (also known as push-pull or balanced output). Under no conditions should the negative outputs be connected to the signal ground. A separate signal ground pin is provided.

## POLES AND ZEROS TABLE

## **WORKS ORDER NUMBER: 4584**

**SENSOR SERIAL NO: T4P98** 

Velocity response output, Vertical Sensor:

POLES (HZ)		ZEROS HZ
-23.65 x 10 <sup>-3</sup> ±j23.65 x -180 -160 -80	10 <sup>-3</sup>	0
Normalizing factor at 1 Hz: A =	2304000	
Sensor Sensitivity:	See Calibration Sheet.	

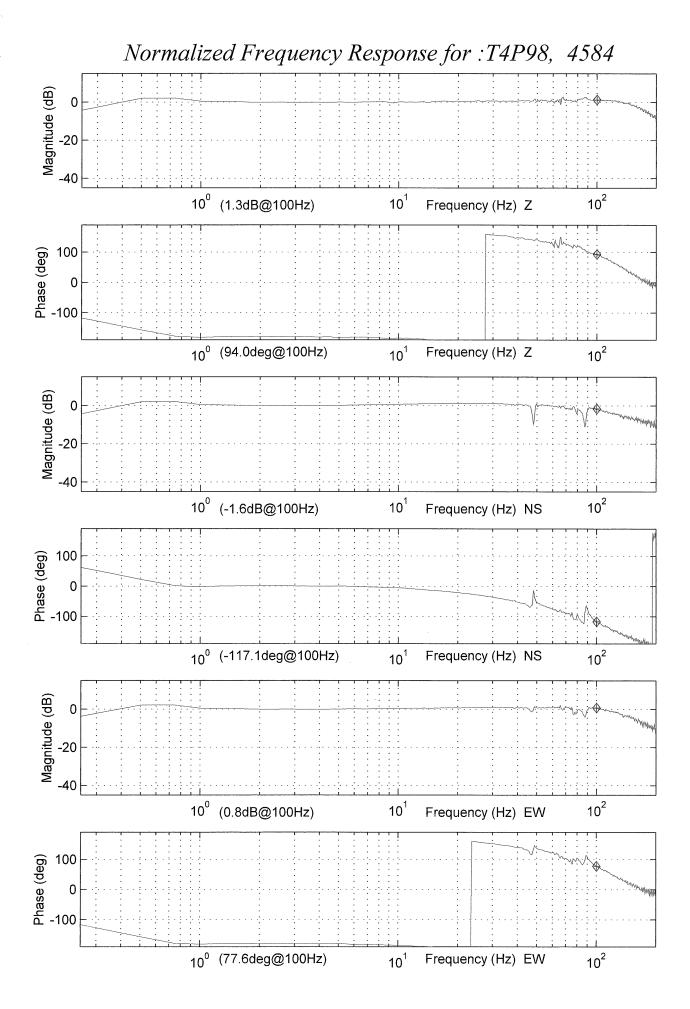
Velocity response output, Horizontal Sensors:

Sensor Sensitivity:

POLES (HZ)		ZEROS (HZ)
$-23.65 \times 10^{-3} \pm j23.65 \times 10^{-3}$ $-180$ $-160$ $-80$		0
Normalizing factor at 1 Hz: A =	2304000	

**NOTE:** The above poles and zeros apply to the vertical and the horizontal sensors and are given in units of Hz. To convert to Radian/sec multiply each pole or zero with  $2\pi$ . The normalizing factor A should also be recalculated.

See Calibration Sheet.



## Normalized Frequency Response for :T4P98, 4584 Magnitude (dB) -20 10<sup>0</sup> (-2.9dB@0.033Hz) 10<sup>-1</sup> Frequency (Hz) Z Dhase (deg) 0 -100 (-90.0deg@0.033Hz)<sub>10</sub>-2 10<sup>-1</sup> Frequency (Hz) Z 10<sup>0</sup> Magnitude (dB) 10<sup>0</sup> 10<sup>-1</sup> (-2.5dB@0.033Hz) Frequency (Hz) NS Dhase (deg) 0 0-100 (88.6deg@0.033Hz)<sub>10</sub><sup>-2</sup> 10<sup>-1</sup> 10<sup>0</sup> Frequency (Hz) NS Magnitude (dB) -20 10<sup>-1</sup> (-2.8dB@0.033Hz) 10<sup>-2</sup> 10<sup>0</sup> Frequency (Hz) EW Dhase (deg) 0 -100

(-89.6deg@0.033Hz)<sub>10</sub>-2

10<sup>0</sup>

Frequency (Hz) EW

10<sup>-1</sup>