

DM24 CALIBRATION

WORKS ORDER: 4444

DIGITISER SERIAL NUMBER: C216
SENSOR SERIAL NUMBER: T4P61

SYSTEM ID: 4444
UNIT ID: 4P61
OUTPUT DATA FORMAT: GCF
BAUD RATE: 38400

BOOTLOADER: BOOT1030.IMG
DSP SOFTWARE: DSPSI1060.BIN
SYSTEM: ARMFWDM103b70.IMG

VELOCITY CHANNELS

Channel:	4P61Z2	Vertical	3.215 $\mu\text{V}/\text{Count}$	1.008E-9 M/S/Count
	4P61N2	North/South	3.198 $\mu\text{V}/\text{Count}$	1.004E-9 M/S/Count
	4P61E2	East/West	3.198 $\mu\text{V}/\text{Count}$	1.004E-9 M/S/Count

MASS POSITION CHANNELS

Sample Rate: 4 samples/sec (Default)

Channel:	4P61M8	Vertical	304.97 $\mu\text{V}/\text{Count}$	15.248E-6 M/S ² /Count
	4P61M9	North/South	306.02 $\mu\text{V}/\text{Count}$	13.910E-6 M/S ² /Count
	4P61MA	East/West	306.02 $\mu\text{V}/\text{Count}$	14.572E-6 M/S ² /Count

Sample Rate: 1 samples/sec

Channel:	4P61M8	Vertical	1.19 $\mu\text{V}/\text{Count}$	59.564E-9 M/S ² /Count
	4P61M9	North/South	1.20 $\mu\text{V}/\text{Count}$	54.336E-9 M/S ² /Count
	4P61MA	East/West	1.20 $\mu\text{V}/\text{Count}$	56.923E-9 M/S ² /Count

CAL SIGNAL MONITOR

4P61X2 / 4P61C2 3.195 $\mu\text{V}/\text{Count}$

GPS RECEIVER

PWM: 8000 Counts
At Temperature Reading: 23°C

POWER CONSUMPTION

Digitiser Power Consumption
GPS Power Consumption

80mA @ 12v
28mA @ 12v

CMG-40T CALIBRATION SHEET

WORKS ORDER: 4444 DATE: 01-May-2008
SERIAL NUMBER: T4P61 TESTED BY: S. Goddard

	Velocity Output V/m/s (Differential)	Mass Position Output (Acceleration output) V/m/s ²	Feedback Coil Constant Amp/m/s ²
VERTICAL	2 x 1595	20	0.00420
NORTH/SOUTH	2 x 1593	22	0.00464
EAST/WEST	2 x 1593	21	0.00456

Power Consumption: 60mA @ +12V input
Calibration Resistor: 51000

NOTE: A factor of 2 x 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

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SENSOR SERIAL NO: T4P61

Velocity response output, Vertical Sensor:

<u>POLES (HZ)</u>	<u>ZEROS HZ</u>
$-23.65 \times 10^{-3} \pm j23.65 \times 10^{-3}$	0
-180	0
-160	
-80	

Normalizing factor at 1 Hz: A = 2304000

Sensor Sensitivity: See Calibration Sheet.

Velocity response output, Horizontal Sensors:

<u>POLES (HZ)</u>	<u>ZEROS (HZ)</u>
$-23.65 \times 10^{-3} \pm j23.65 \times 10^{-3}$	0
-180	0
-160	
-80	

Normalizing factor at 1 Hz: A = 2304000

Sensor Sensitivity: See Calibration Sheet.

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 2π . The normalizing factor A should also be recalculated.