

DM24 CALIBRATION

WORKS ORDER: 2549

SERIAL NUMBER: D0095

SYSTEM ID: 2549

UNIT ID: D095

DSP SOFTWARE: ROM?SYN.001

OUTPUT DATA FORMAT: GCF

H8 SOFTWARE: DM24-3M.084

BAUD RATE: 9600

VELOCITY CHANNELS

Sample Rate: 100 samples/sec

Channel:	D095Z2	Vertical	1.276E-06 V/Bit	801.766E-12 M/S/Bit
	D095N2	North/South	1.276E-06 V/Bit	791.042E-12 M/S/Bit
	D095E2	East/West	1.280E-06 V/Bit	800.206E-12 M/S/Bit

MASS POSITION CHANNELS

Sample Rate: 4 samples/sec

Channel:	D095M8	Vertical	281.22E-06 V/Bit	13.203E-6 M/S ² /Bit
	D095M9	North/South	280.86E-06 V/Bit	14.705E-6 M/S ² /Bit
	D095MA	East/West	280.22E-06 V/Bit	13.669E-6 M/S ² /Bit

ENVIRONMENTAL CHANNELS

Sample Rate: 4 samples/sec

Temperature Range: 233 - 373 Kelvin

Accuracy: $\pm 5\%$

Channel:	D095ME	Internal Temperature	12.612E-3 K/Bit
	D095MB	Cal Signal Monitor	255.36E-06 V/Bit

AUXILLIARY INPUTS

Range: ± 6.75 Volts (maximum input)

Channel:	D095M0-7	209.036E-6 V/Bit
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Digitizer Power Consumption

178mA

		Input (V)	Digital Val	V/Bit	V/M/S	M/S/bit		
Chan 1 (Z)	Pos	6.2315	4765104					
	Neg	-6.2295	-5004900					
	Total	12.461	9770004	1.276E-06	1592	801.766E-12		
Chan 2 (N)	Pos	6.2288	4772005					
	Neg	-6.2286	-5013689					
	Total	12.4574	9785694	1.276E-06	1613	791.042E-12		
Chan 3 (E)	Pos	6.2276	4757722					
	Neg	-6.2275	-4998889					
	Total	12.4551	9756611	1.280E-06	1600	800.206E-12		
Mux Chan Cal								
Chan No		Vin		Pos Counts	Neg Counts	V/Bit		
0		6.155	12.31	29512	-29432	0.000208842	209.036E-6	average of aux i
1		6.154	12.308	29476	-29462	0.00020883		
2		6.153	12.306	29370	-29370	0.000209499		
3		6.153	12.306	29554	-29506	0.000208364		
4		6.1522	12.3044	29416	-29356	0.000209358		
5		6.1524	12.3048	29512	-29474	0.000208605		
6		6.1524	12.3048	29419	-29460	0.000208985		
7		6.1516	12.3032	29279	-29362	0.000209805	V/M/S/S	M/S/S/Bit
Z Mass 8		6.329	12.658	24495	-24489	281.22E-06	21.3	13.203E-6
N Mass 9		6.3294	12.6588	24547	-24543	280.86E-06	19.1	14.705E-6
E Mass 10		6.3299	12.6598	24599	-24591	280.22E-06	20.5	13.669E-6
		counts	Deg K					
temperature		23485	296.2			12.612E-3		

CMG-40T CALIBRATION SHEET

WORKS ORDER:	0713	DATE:	01/10/97
SERIAL NUMBER:	T4562	TESTED BY:	SDG

	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 1592	21.3	0.004526
NORTH/SOUTH	2 x 1613	19.1	0.004056
EAST/WEST	2 x 1600	20.5	0.004358

Power Consumption:	54 mA @ + 12V INPUT
Calibration Resistor:	10K

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 ZERO TABLE

WORKS ORDER NUMBER:0713

SENSOR SERIAL NO: T4562

Velocity response output, Vertical Sensor:

<u>POLES (HZ)</u>	<u>ZEROS HZ</u>
$-23.65 \times 10^{-3} \pm j 23.65 \times 10^{-3}$	0
-66.0	0
-159.0	189

Normalizing factor at 1 Hz: A = -55.89

Sensor Sensitivity: See Calibration Sheet.

Velocity response output, Horizontal Sensors:

<u>POLES (HZ)</u>	<u>ZEROS (HZ)</u>
$-23.65 \times 10^{-3} \pm j 23.65 \times 10^{-3}$	174.208
-91.297 $\pm j$ 20.011	0
	0

Normalizing factor at 1 Hz: A = 50.12

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.