



**TEST AND  
CALIBRATION DATA**

**CMG-DM24**

**Serial No. A6433**

**DESIGNED AND MANUFACTURED BY:**

**GÜRALP SYSTEMS LIMITED  
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- 1. WORKS ORDER NUMBER:** The Works Order Number is the number used at Güralp Systems Limited to file sensor manufacture details.
- 2. SYSTEM ID:** This number (can be alphanumeric) can be used by the customer to identify the name of a network. Normally it is set to be the Works Order Number. The customer can change the System ID (a 6 character space is available).
- 3. UNIT ID:** Specified the name of the data stream. Unit ID is designed to be used as a station identifier within a network. It is normally set to be the serial number of the station. When the Unit ID is changed the last two characters are used by the DM to identify the component and the sample rate associated with that component. Only 4 characters are available to the user as the last two characters are overwritten by the DM.
- 4. OUTPUT DATA FORMAT:** GCF stands for Güralp Compressed Format.
- 5. BAUD RATE** This is the baud rate set at the factory. The baud rate can be changed by the customer.
- 6. VELOCITY CHANNELS:** The sensitivity of each digitizer channel in units of Volts/bit and combination of each sensor digitizer channel in units of m/s/bit is given. M/s/bit is not specified if the calibration data is specific to a stand-alone digitizer.
- The calibration of each sensor velocity output is also given separately in the sensor calibration sheet in units of V/m/s.
- The stream ID specifies the component and the tap used from the DSP which provides the sample rate. For example.
- |      |    |
|------|----|
| 4428 | Z2 |
|------|----|
- Serial No. of Sensor      Vertical Component 100s/s
- 7. MASS POSITION CHANNELS:** These mass position channels are only used to establish the status of the seismometer system. These outputs must be checked occasionally to establish the operating condition of the sensor.

The variation of the mass position outputs can be  $\pm 15,000$ . As long as the sensor mass position outputs are within the given counts range the sensor operation will be satisfactory.

**8. AUXILLIARY INPUTS:**

The input sensitivity is given in V/Bit. The outputs of the equipment connected to these channels should have its signal ground connected as given in the documentation.



## AUXILIARY CHANNELS

Sample Rate: 4 samples/sec (Default)

Channel:	VEL9MB	290.66 $\mu$ V/Count
	VEL9MC	291.47 $\mu$ V/Count
	VEL9MD	290.83 $\mu$ V/Count
	VEL9ME	291.45 $\mu$ V/Count
	VEL9MF	290.61 $\mu$ V/Count

## DM24 CALIBRATION

WORKS ORDER:14216

DIGITISER SERIAL NUMBER:A6433

SYSTEM ID:A6433  
UNIT ID:VEL9, ACC9  
OUTPUT DATA FORMAT:GCF  
BAUD RATE: 115200

CPLD:A0.E1  
BOOTLOADER:MK3BOOT302.IMG  
DSP SOFTWARE:DSP1090.BIN  
SYSTEM: DMNET107b10.IMG

### VELOCITY CHANNELS

Channel:	VEL9Z2	Vertical	3.215 $\mu$ V/Count
	VEL9N2	North/South	3.217 $\mu$ V/Count
	VEL9E2	East/West	3.204 $\mu$ V/Count
	ACC9Z2	Vertical	3.219 $\mu$ V/Count
	ACC9N2	North/South	3.212 $\mu$ V/Count
	ACC9E2	East/West	3.215 $\mu$ V/Count

### MASS POSITION CHANNELS

Sample Rate: 4 samples/sec (Default)

Channel:	VEL9M8	Vertical	291.41 $\mu$ V/Count
	VEL9M9	North/South	291.43 $\mu$ V/Count
	VEL9MA	East/West	291.21 $\mu$ V/Count

### CAL SIGNAL MONITOR

VEL9X2/ VEL9C2 3.208  $\mu$ V/Count

### GPS RECEIVER

PWM: 8000 Counts  
At Temperature Reading: 23°C

### POWER CONSUMPTION

Digitiser Power Consumption  
GPS Power Consumption

80mA @ 12v  
28mA @ 12v