

CMG-5TD



Robust portable strong motion digital accelerometer

The Güralp Systems CMG-5TD is a fully digital triaxial force feedback accelerometer with a large dynamic range, suitable for seismology, hazard mitigation and civil engineering applications. It combines the well-regarded CMG-5TC strong motion instrument with an integrated DM24 digitizer, to form a low-noise sensor with direct RS232 output.

Key Features:

Low-noise components for precision and dynamic range

Full-scale sensitivity from 0.1 to 4.0 g

Low pass corner from 50 to 100 Hz

No sensor levelling required

Isolated power supply for 10 – 36 V operation

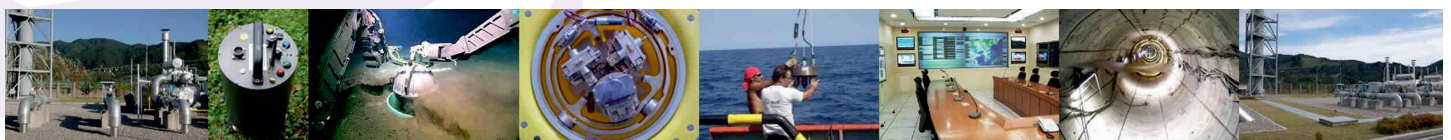
Robust and waterproof

Up to 16 Gb of on-board Flash memory storage

Fast data download over FireWire - "plug in and go"

Optional USB data transfer

Optional USB Flash memory stick storage option



Specifications

CMG-5TD



Standard acceleration output band DC – 100 Hz

Output sensitivity 4 g, 2 g, 1 g, 0.5 g, 0.1 g
Corresponding high gain outputs 0.4 g, 0.2 g, 0.1 g 0.05 g, 0.01 g
Peak output ± 10 V differential
Nominal output impedance 47 Ω

Lowest spurious resonance > 450 Hz
Linearity 0.1 % full scale
Cross-axis rejection 0.001 g/g
Dynamic range > 165 dB
> 140 dB for 0.005 – 0.05 Hz;
> 127 dB for 3 – 30 Hz (see plot)

Operating temperature -20 to $+70$ °C
Materials Hard anodized aluminium case
Mil-spec connectors

Case diameter 176 mm
Case height (with feet / handle) 245 mm
Case height (sensor only) 160 mm
Weight 4.3 kg
Environmental protection (IP rating) IP67

Isolating power supply 10 – 28 V DC
Current at 12 V DC 185 mA

Calibration controls Independent signal & enable lines
exposed on sensor connector
Optional output controls Remote offset zeroing
Optional low pass corner 50, 100 or 200 Hz

