



GURALP SYSTEMS

CMG-6T

Portable broadband seismometer

The Guralp CMG-6T is an ultra-lightweight three-component seismometer ideally suited for rapid installation in medium-noise sites.



Features

- True broadband force-feedback instrument
- Direct velocity outputs
- Lightweight, waterproof and self-contained
- Quick and easy, one-person installation
- Easy access to electrical connections
- No mass clamping required – plug in and go
- High sensitivity and dynamic range
- Orthogonal instrument with high cross axis rejection (>65 dB)

The 6T can be supplied with response options of
1s to 100Hz (Model CMG-6T-1)
10 s – 100 Hz
30 s – 100 Hz

Its high-gain feedback loop eliminates mechanical non-linearity (the overall measured linearity exceeds 90 dB) and minimizes resonances in the spring system.

Low-frequency vibration modes are carefully avoided in the design. The lowest spurious vibration mode of the 6T is a barely measurable resonance at 440 Hz.



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Specifications

Velocity output bandwidth	1 s – 100 Hz (Model CMG-6T-1), 10 s – 100 Hz (Standard) or 30 s – 100 Hz
Velocity output sensitivity	2 × 1200 V/m/s, (Standard) 2 × 2000 V/m/s or 2 × 1000 V/m/s
Peak output	±10 V (20 V peak-to-peak)
Optional high gain sensitivity	2 × 10000 V/m/s (adjustable)
Lowest spurious resonance	450 Hz
Linearity	> 90 dB
Cross-axis rejection	> 65 dB
Electronics noise level	-172 dB (rel. $1\text{m}^2\text{s}^{-4}\text{Hz}^{-1}$)
Operating temperature	-40 to +75 °C
Temperature sensitivity	< 0.6 V per 10 °C
Mass recentring range	±3 ° from horizontal
Materials	Hard anodised aluminium case Gold plated contacts O-ring seals throughout
Case diameter	154 mm
Case height (with handle)	207 mm
Weight	2.49 kg
Power supply	10 – 36 V DC
Optional low power sensor	5 V DC supply (output ±4.5 V)
Current at 12 V DC	38 mA
Calibration controls	Common signal & enable lines exposed on sensor connector
Offset zeroing	Adjustable through case
Optional remote control	Offset zeroing with DC motors
Optional accessories	Handheld Control Unit
