



GURALP SYSTEMS

CMG-5T Compact

strong-motion feedback accelerometer

The new CMG-5T is Guralp Systems' smallest ever triaxial instrument: a low-noise force feedback accelerometer with a large dynamic range, suitable for seismology, hazard mitigation and civil engineering applications.



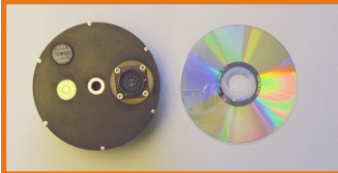
Features

Low-noise components for precision and dynamic range

50% smaller footprint than the original CMG-5T

Full-scale sensitivity from 0.1 to 4.0 g

Low-pass corner from 50 to 200 Hz



Simple installation with a single M8 fixing bolt; robust and waterproof

No sensor levelling required

Isolated power supply for 10 – 36 V operation

Acceleration offsets adjustable to <math><1\text{ mV}</math> precision

Connector compatible with CMG-3T and 40T; breakout box identical to original 5T

Automatic open-loop calibration with built-in timer



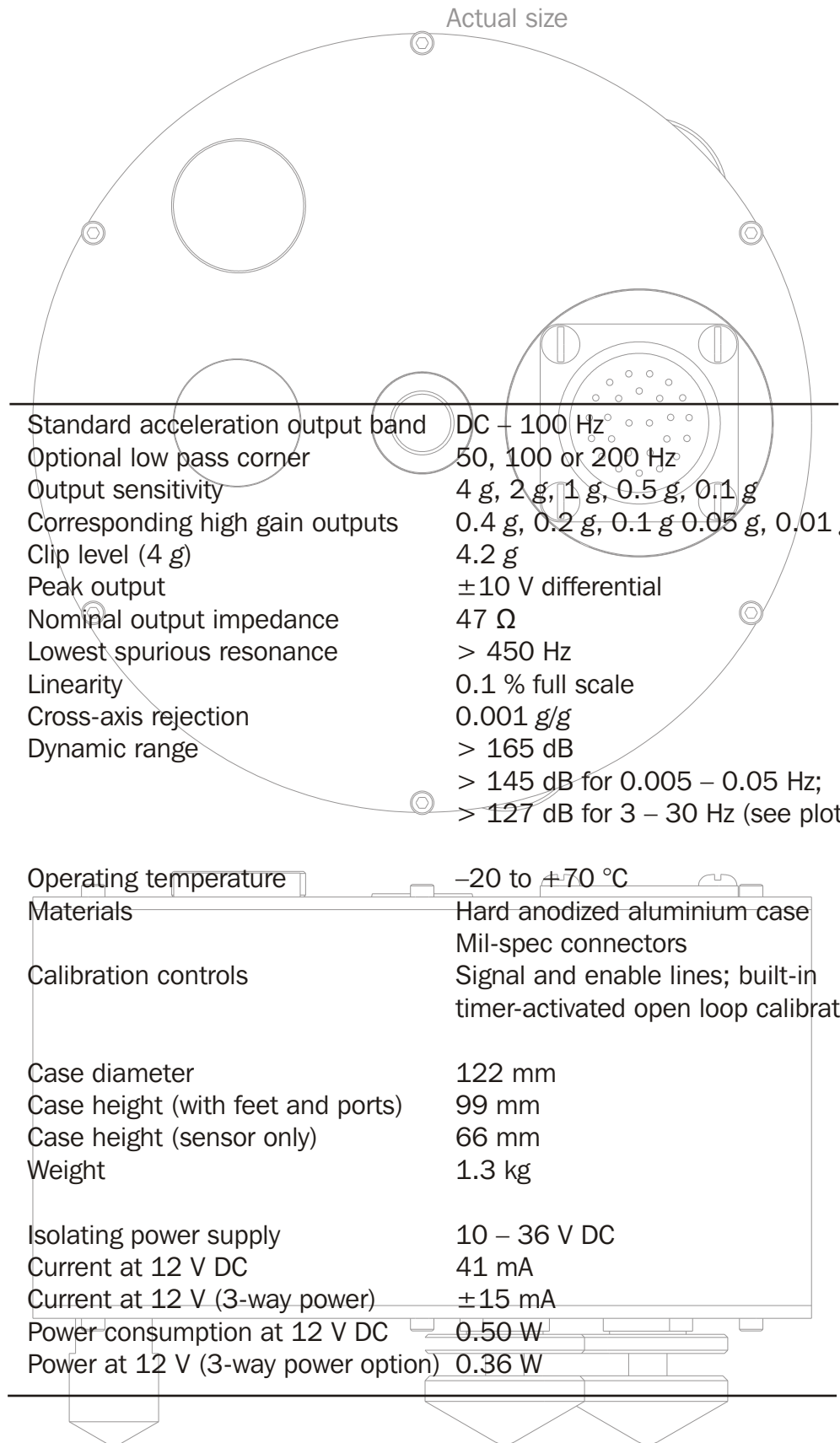
Filter options

The 5T has two sets of output pins. The standard instrument provides $10 \times$ gain outputs on these pins. Alternatively, a high-pass filter can be installed with a corner frequency you specify.



Distributed by:

Specifications



Standard acceleration output band	DC – 100 Hz
Optional low pass corner	50, 100 or 200 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
Clip level (4 g)	4.2 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 > 145 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
Calibration controls	Signal and enable lines; built-in timer-activated open loop calibration
Case diameter	122 mm
Case height (with feet and ports)	99 mm
Case height (sensor only)	66 mm
Weight	1.3 kg
Isolating power supply	10 – 36 V DC
Current at 12 V DC	41 mA
Current at 12 V (3-way power)	±15 mA
Power consumption at 12 V DC	0.50 W
Power at 12 V (3-way power option)	0.36 W