

Borehole Seismometer Observatory Grade: Model G202-1.0

High-pressure and low-frequency borehole seismometer for micro-earthquake monitoring.

The G202-1.0 is a triaxial borehole seismometer which combines **low corner frequency** with the highest in-class performance level in sensitivity, reliability and longevity for micro-earthquake detection. Designed around the tried and true **Mark L4C** and optimised for earthquake detection and analysis it consists three orthogonal components which are **gimbaled** to give a borehole deviation tolerance of 10.5°. The G202-1.0 represents 20 years of instrument development experience at IESE, and it is purpose built for long term or permanent installation in **high-pressure** hostile borehole environments. A single component G110-1.0 model is also available.

Features

- Fully gimbaled, 10.5° maximum tilt
- Withstands up to 60 °C
- Passive sensors
- For permanent or semi-permanent installations



Geophone parameter

Sensor configuration
Natural frequency
Operational temperature
Geophone tilt tolerance
DC resistance
Sensitivity
Transduction constant
Open circuit damping
Moving mass
Max coil excursion p-p

Specification

Triaxial, Orthogonal
1.0 Hz
-29 °C to +60 °C
Vert. ± 5°, horiz. ± 0.5°
5,500 Ω
2.77 V/cm/s (7.03 V/in/s)
0.0373 √Rc V/cm/s (0.095 √Rc V/in/s)
0.28
1,000 g
0.635 cm (0.25 in)

Housing parameter

Operational pressure
Gimbal tilt range
Outer diameter
Wall thickness
Height
Weight
Casing material

Standard model

23.3 MPa* (3,380 psi*)
± 10°
202 mm (8.0 in)
4.2 mm (0.2 in)
1,200 mm (47.2 in)
60 kg
316L stainless steel, nylon

For more information, please email us at enquiries@iese.co.nz, phone +64 9 354 4224, or visit <http://www.iese.co.nz>.