Shallow Posthole Seismometer: Model F72-4.5

Easily installed seismometer for high-temperature micro-earthquake monitoring.

The F72-4.5 is IESE's readily deployed shallow posthole sonde for use in micro-earthquake detection and analysis. The standard model F72-4.5 is designed for installation in up to 50 m vertical holes with a specialized option for use to 100 m. All three orthogonal components are fixed. The F72-4.5 represents a low cost compromise if the conditions are applicable. An alternate model, the F72-2.0 offers a lower corner frequency in exchange for a lower tilt tolerance.

Features

- Fixed geophones
- Withstands up to 150 °C
- Passive sensors
- For permanent or temporary installations
- Custom versions can include accelerometers, magnetometers etc.

Geophone parameter	Specification	
Sensor configuration	Triaxial, Orthogonal	
Natural frequency	4.5 Hz	
Operational temperature	-45 °C to +150 °C	
Geophone tilt tolerance	Vert. ± 15°, horiz. ± 2°	
DC resistance	3,810 Ω	
Sensitivity	0.787 V/cm/s	(2.0 V/in/s)
Transduction constant	0.0126 √Rc V/cm/s	(0.032 √Rc V/in/s)
Open circuit damping	0.27	
Moving mass	23 g	
Max coil excursion p-p	0.76 cm	(0.300 in)

Housing parameter	Standard model	
Operational pressure	0.55 MPa	(80 psi)
Outer diameter	72 mm	(2.8 in)
Wall thickness	2.5 mm	(0.1 in)
Height	315 mm	(12.4 in)
Weight	11 kg	(24 lbs)
Casing material	316L stainless steel	

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

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