Technologies for seismology, engineering and geophysics

SS08 is a portable, broad-band, triaxial seismometer designed for quick and simple installation, wide temperature operations and safe transport. It uses the symmetric architecture recovering Z,Y,X velocity signal from U,V,W homogeneous transducers. This methodology allows higher precision in reconstruction of real ground motion.

Applications

- * Observatory grade earthquake seismology
- * Reservoir microseismic monitoring
- * Planetary seismology and geophysics
- * Tsunami Early Warning Systems

Main features

- * High sensitivity
- * Ultra low noise design
- * Self noise below Peterson's noise model (NLNM)
- * Automatic mass centering
- * Electric mass lock upon command
- * Magnetic shielding
- * Low power consumption allows SS08 to be used in remote istallation with limited energy source
- * Sealed housing with structure air-pressure variations resistant
- * IP68 grade
- * Made in EU (Italy)



an underground SS08 installation in central-Italy









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Specifications

Configuration: U,V,W (output to physical motion Z, Y, X)
Principle of operation: Force Feedback with capacitive transducer
Nominal sensitivity: 1500V/m/s* (customizable at order)

Velocity output: Z, Y, X (U,V,W mode also available at mass output signals)

Pass-band: 180-20s to 100Hz (customizable at order) Number of channels: 3+3 (Z, Y, X and virtual mass UVW status) +/- 20V (differential output, 40V p-p)

Clip level: 13 mm/sec (nominal @ 1500 V/m/s, see chart)

Output impedance: 2 x 100 Ohm

Mass position output: +/- 10V from U,V,W signals

Dynamic range: > 150dB in range 0.1 – 10Hz (see chart)
Calibration input: 1 with transducer selection (U,V,W,all)

Power supply input: 9-36Vdc isolated

Power consumption: < 500mW* @ 12Vdc (1W maximum depending on conditions)

Protections: Surge and reverse-voltage, with self-resetting fuses

Calibration coil: 33 ohm

Self noise: <USGS NLNM between 0.004 to 25Hz*
Levelling: Manual with lockable paddles, integrated level

Max. tilt olerance: +/- 3° with levelling feet

Operating temperat.: -20/+70°C (-/+25°C without recentering)

Storage temperature: -40/+80°C

Humidity: 0-100% even condensing (with plugged-in connectors)

Protection grade: IP68K

Mass lock & centering: Automatic, externally electrically activable

Max. shock allowed: 5g half sine

Connector: MIL-C-26842 26 pin at a side
Standard cable lenght: 3 meters, customizable at order
Digital interface: RS232 for diagnosis & commands
Dimension: diameter 240mm, body height 275mm

Weight: 15kg

Enclosure: Aluminum, painted and coated

against corrosion

Regulation compliance: CE

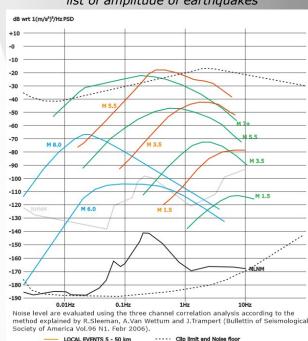
* specification can variates depending on customizations and versions of bandpass and sensitivity

ISO 9001:2015 certified company N° 2923



Notice! This paper is an information leaflet only; it is published without programmed updates. All specifications, features and prices are subjected to changes without any prior notice. In the event of any discrepancies between this document and a commercial offer or bidding document, these latter will take precedence.

Clip and noise level compared to NLNM and a list of amplitude of earthquakes



LOCAL EVENTS 5 - 50 km LOCAL EVENTS 80 - 120 km LOCAL EVENTS 1800 - 3200 km

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