SS08 SEISMOMETER

The SS08 is a portable broad-band triaxial seismometer designed for quick and simple installation, wide temperature range operation and secure transport.

Rather then have the traditional separate 3 axis of sensitivity X,Y,Z it use the homogeneus architecture giving axis in U,W,V and then providing the X,Y,Z with a processor matrix.

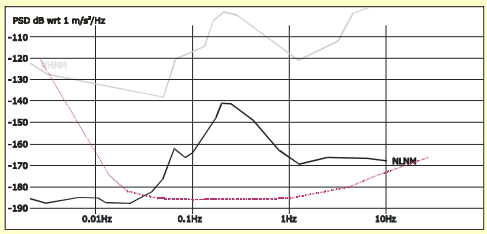
Simplicity
For its class of instrument the SS08 is a compact unit, reliable and easy to deploy and use. No need for calibration; at factory it is tightly tuned to match the poles and zeroes of the required transfer function. Wide tilt tolerance with automatic mass centering allow the unit to operate in minutes.

Flexibility
Signal output with high gain and high dynamic range allow the unit to be used with all kinds of seismic digitizers. Several parameters can be customized at order to match the user's needs.

Energy
Very low power consumption of less than 0.5W allow the unit to be used in remote installation.

Precision
The SS08's homogeneous architecture assure for each UWV element high quality thanks to the standardized production line. Advanced selection of component's materials, including special alloys, allows the maximum robustness and thermal stability.

Ultra low-noise
The following diagrams shows the noise floor of a 0.02Hz-50Hz sensors.



Noise level are evaluated using the three channel correlation analysis according to the method explained by R.Sleeman, A.Van Wettum and J.Trampert (Bullettin of Seismological Society of America Vol.96 N1. Febr 2006).

Quality
Our instruments are designed taking in account needs of our clients in Italy and wordlwide. INGV, ENEA, CNR, Italian and european universities as well as public and private institutes in Latin America, Asia and Middle-east uses our instrumentation since several years.

Specifications

Configuration:	U,W,V (output matrix to Z,X,Y)
Principle of operation:	Force feedback with capacitive transducer
Nominal sensitivity:	1500V/m/s (or other to be specified at order)
Velocity output:	selectable X,Y,Z (default) or UVW mode
Pass band:	from 180-20 seconds to 30-100 Hertz (frequency range to be specified at order)
Number of channels:	3+3 (X,Y,Z + mass positions)
Peak output:	+/-20V (differential output 40 Vp-p)
Clip level:	13 mm/sec (nominal at 1500V/m/s sensitivity)
Output impedance:	2*100 ohm
Mass position output:	+/-10V from the U,V and W signals
Dynamic range:	> 150dB*
Parasitic resonance:	> 140Hz
Calibration input:	1 with axis selection (U,W or V)
Power supply input:	9-36Vdc isolated
Power consumption:	< 0.5W typical (1W maximum) @ 12Vdc
Protection:	surge and reverse-voltage with self-resetting fuse
Calibration coil per cell:	33 ohm
Mechanical eigenfreq.:	< 1Hz
Self noise:	< USGS NLNM between 140s to 25Hz*
Levelling:	manual with lockable paddles, integrated level
Maximum allowed tilt:	+/-3° with feet levelling
Operating temperature:	-20°C to +70°C
without recentering:	+/-15°C
Storage temperature:	-40°C to +80°C
Humidity:	0-100% even condensing
Protection grade:	IP68K
Mass centering:	automatic (externally activated) +/-0.5°
Mass lock:	electric to be activated before transportation
Maximum shock allowed:	5g half sine
Connector:	26 pin MIL-C-26842 mounted on base
Standard cable length:	standard 3 meters
Digital interface:	RS232 for diagnosis and commands
Dimensions:	maximum diameter 240 mm (excluding connector) max height 275 mm
Weight:	15 kg
Enclosure:	air tight optimized to be insensitive to atmospheric pressure fluctuations, with stainless steel and aluminum treated against corrosion.
Regulation Compliance:	CE

Important notice! This paper is an information leaflet onyl; it is published without programmed updates; with the purpose of improve the product all specifications are subjected to change without any prior notice and except error and omissions.
When the product is offered in bid document or commercial offer, if differences exist between this document and the commercial or bid offer document, the bid document prevails.

* Feature can variates depending on customization of sensitivity, band-pass or other.

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