

Technologies for seismology, engineering and geophysics

SS08C is a portable, compact, short/mid/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
- * Soil property inspection and evaluation
- * Microzonation

Main features

- * High compactness and low weight
- * Ultra low noise design
- * Fast setup, data are useable few minutes after deployment
- * Easy deployment, similar to a geophone for the size
- * Allow use in shallow posthole without any special care
- * Intrinsic robustness due to low weight and size
- * Different foot options are available for different surfaces.
- * Low power consumption allows unit to be used in remote installation with limited energy source
- * Made in EU (Italy)



Housings

Different housing are available upon request, for example borehole / posthole deployment using stainless steel AISI316 housing and motorized automatic levelling for high tilt compensation.

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:	Selectable Z, Y, X or U, V, W mode
Pass-band:	10s-120s to 100Hz (-3dB point at flat to ground velocity, customizable at order)
Number of channels:	3 + 3 (Z, Y, X and virtual mass UVW status)
Peak output:	+/- 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:	> 155dB at 1Hz; > 135dB in range 0.1 – 50Hz (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)
Electrical Protections:	overvoltage, surge, reverse-voltage and current overload
Calibration coil:	16 ohm, input for UVW/ZYX components
Self noise:	<USGS NLNM between 0.03 to 10Hz*
Levelling:	Manual with lockable paddles, integrated level
Max. tilt olance:	+/- 3° with levelling feet
Operating temperatur.:	-20/+60°C
Storage temperature:	-40/+80°C
Humidity:	0-100% even condensing (with plugged-in connectors)
Protection grade:	IP68K
Mass lock & centering:	Not necessary
Max. shock allowed:	5g half sine
Connector:	MIL-C-26842 26 pin mounted on top
Standard cable lenght:	3 meters, customizable at order
Digital interface:	RS232 or RS485 for diag & test
Dimension:	diameter 100mm, body height 125mm
Weight:	1.42kg
Enclosure:	Aluminum painted, air tight, treated against corrosion
Norm conformity:	CE

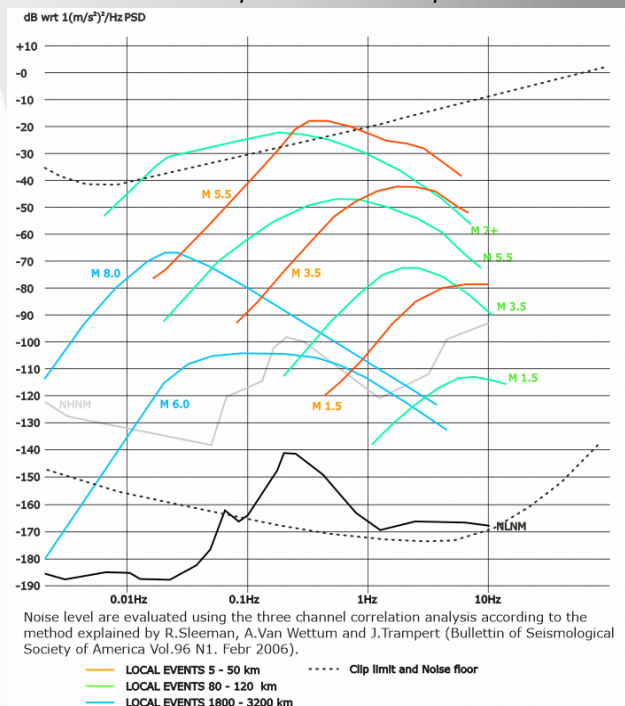
* specification may vary depending on customization

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



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