SS10/05/02/01 Velocitymeters

The SSXX velocitymeters series are electrodynamic triaxial sensors equipped with a precision electronic circuitry which make them homogeneous and linearized, in order to obtain a flat band between the nominal resonance: 1.0, 0.5, 0.2 or 0.1Hz frequency to the upper limiting frequency of 50Hz*.

This kind of sensors represent the best alternative to mechanical 1Hz sensors and broad band sensors, for their compactness, lower cost and weight. The sensor elements can be also embedded in our SR and SL instruments.

Simplicity

The SSXX sensors are compact, reliable and ease of use. You don't need to check the damping resistors, orienting or applying locking devices. All these operation are automatically made by the electronic inside.

Flexibility

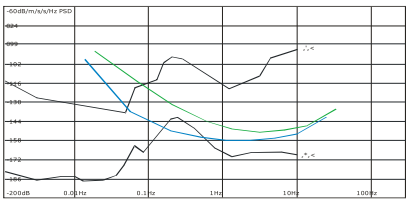
The high sensitivity allow the use also with third party digitizers/recorders. Modularity of the system allow to have monoaxial, biaxial or the standard triaxial setup in order to reduce costs and weight, where is needed. Upgrades are always possible also customization of the bandpass also after the purchase. (within some limits and sending the instruments at our labs)

Precision

The SSXX series sensors use the best electrodynamic transducer available in the market with high stability and robustness. All is assembled in a machined solid block of aluminum treated again corrosion as all our other instruments.

Low noise

The SSXX noise floors are measured using the method recommended by USGS United States Geological Surveys and directly comparable with the global noise model explained in the popular Peterson article and known as the Peterson's noise model. Only instruments which calculate the noise threshold in this way can provide the noise performance feature in a worldwide recognized manner. The two noise floor are provided in the following picture as reference for the two different sensors SS01 (blue) and SS02/05 (green).



Applications

These sensors finds one main application in the noise surveys (as Nakamura method) and microseismic and seismic monitoring; they can also be used for artificial vibration monitor (explosion, machining, etc..)
The sensor has a limited power consumption making it suitable also for remote installations with limited power sources like in volcanoes monitoring, dam monitoring or temporary seismic networks for aftershocks studies.

The instruments come with the referred transfer functions in poles and zeroes according to the international seismological standards for an easy ground motion restitution.

Several solutions are available for the sensor anchoring from floor or wall mounting to temporary deployment on soft soil or shallow subsoil; feel free to ask us for explanation on the available solutions.

SSXX technical feature summary

Model		10	05	02	01
Band pass	'!	1.0--50	0.5--50	0.2--50	0.1--50
Damping	*h*	0.707	0.707	0.707	0.707
Sensitivity[3]	V/m/s	400	400	400	400
Output impedance	*ohm*	100	100	100	100
Tilt tolerance	6	5	5	2	2
Weight		2100	2100	3200	3200

Dimensions: 180x170x90mm
Connectors: MIL-C 10-pin Lennartz compatible
Output: true bipolar differential
Compliance: ;>
Protection grade: IP66 (higher upon request)
Power supply: 9-16Vdc
Power consumption: < 50 mA

* Extended band over 50Hz is possible upon request.

§ It is possible to have sensor with higher or lower sensitivity to match your recording system, ask us for more information.

SARA Electronic Instruments s.r.l. reserves the right to apply in any moment modifications and changes to the features and prices of all products without any prior notice.

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