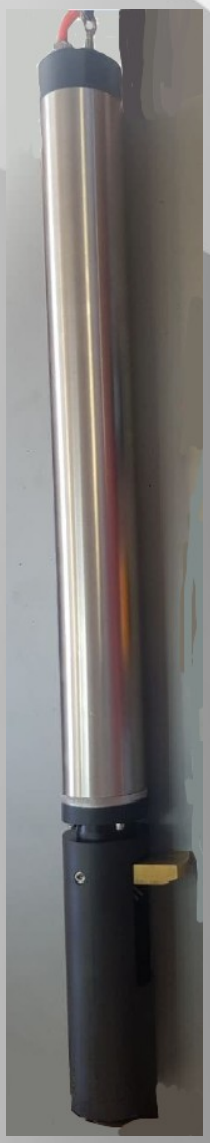
SA10 FBA

Technologies for seismology, engineering and geophysics

SA10 is a true force balance accelerometer (FBA) designed for seismic or industrial application suitable for both weak or strong motion monitoring. The sensor is entirely designed in our laboratory and it offers an excellent dynamic range, compactness and sensitivity, that make this sensor one of the best products available in the international market.



Applications

* Observatory grade earthquake seismology
* Structure health monitoring
* Dam monitoring

Main features

* Mono, Bi or Triaxial version available
* Dynamic range up to 165dB
* Programmable gain version available (without opening the unit)
* Bandwidth from DC to 100 or 200Hz
* Borehole version available
* Robust suspension system
* Slot at bottom for single bolt mounting
* Wall, floor, ceiling mount available upon request
* Low power consumption
* Response files are available through IRIS NRL library
* Made in EU (Italy)

Housings

Different housing are available upon request, for example borehole/posthole deployment using stainless steel AISI316 housing and motorised hole-locking system (upon request).

Reliability

This model is in operation worlwide by over 14 years and more than 18000 axis has been manufactured bringin in operation thousands of mono/bi/triaxial units. It is in use for a variety of applications worldwide, for O&G, SHM, Microseismic, EEWS, etc…

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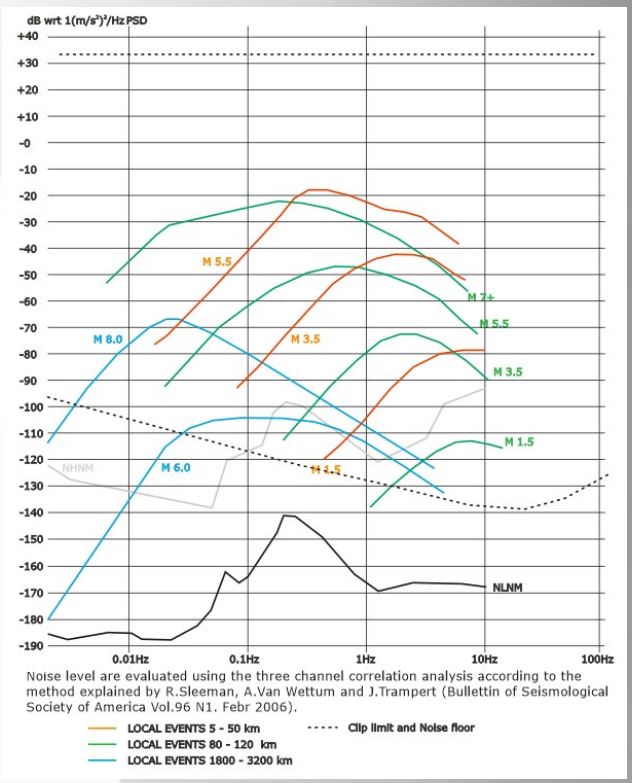
Specifications

Number of axes:	1, 2 or 3 in X, Y, Z or any combinations of the three
Orientation:	horizontal or vertical (wall mount) to be specified at order
Levelling:	manual, with adjusting knobs
Casing:	solid block of aluminum CNC milled and treated against corrosion
Dimensions:	140x155x85mm; compact version 155x113x80mm (all excepts connectors)
Weight 3d versions:	<3.1 kg; compact version < 1.85kg
Protection grade:	IP68
Tolerated humidity:	0-100%
Temp. operative range:	-20 to +70°C
Bandwidth:	standard DC-100Hz; optional 0-200Hz
Damping:	0.7
Inertial mass weight:	15 g
Standard sensitivity:	5 V/g (2g at full scale)
Output impedance:	100 ohm
Full scale:	+/- 2g (standard) or: 1g, 4g or programmable 0.5, 1, 2, 4g
Output:	+/-10V fully differential (50 ohm)
Dynamic range:	> 165dB (per bin from 0.1Hz to 20Hz with 1g full scale version)
Offset drift:	0.0005 g/°C
Hysteresis:	< 0.001% of full scale
Nonlinearity:	<= 0.1%
Cross axis sensitivity:	<= 0.5%
Power supply:	10-15Vdc (80mA for a triaxial unit in standby)
Connector:	MIL-C-26842 10 pin connectors or cable gland
Standard cable lenght:	3 meters, customizable at order
Regulation compliance:	CE

specification may variate depending on customization

compact version



Clip and noise level compared to Peterson's noise models and a list of amplitude of earthquakes

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