

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 worldwide by over 12 years and more than 15000 axis has been manufactured bringing 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...



Specifications

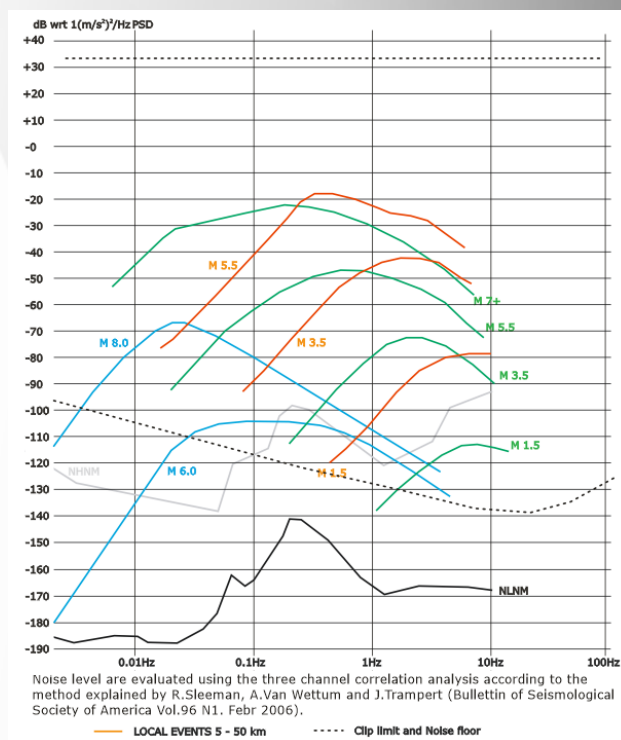
Number of axes: 1, 2 or 3 in X, Y, Z or any combinations of the three
 Orientation: horizontal or vertical (wall mount) to be specified at order
 Levelling: manual, with adjusting knobs
 Casing: solid block of aluminum CNC milled and treated against corrosion
 Dimensions: 140x155x85mm (except connectors); compact version 170x80x58mm
 Weight: about 3 kg; compact version about 1.8kg (2D version)
 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: +/- 2 g (standard, 1g or 4g upon request)
 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%
 Noise floor: < 80 ng $\sqrt{\text{Hz}}$
 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

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

