SR04S3 GeoBox

The digital sensor SR04 GeoBox is a high-performance instrument especially suitable for acquiring signals for seismological and geophysical surveys such as the Horizontal/Vertical Spectral Ratio (HVSR).

The communication protocol is public, software plugins exist for SEISMOWIN, SEISLOG, SEISCOMP and EARTHWORM.

The instrument's features include extreme ease of use, reliability and low power consumption.

Simplicity
The SR04 GeoBox is designed especially for recording ambient seismic noise, but it can also record earthquakes and artificial vibrations. Compact, reliable and simple, it is fully functional within minutes after deployment.

Connectivity
The unit is equipped with 2 serial ports responding to the RS232 standard, one for the GPS output and one for the digital seismic data stream. A USB-RS232 cable is supplied to connect it with new computers not equipped with comm ports.

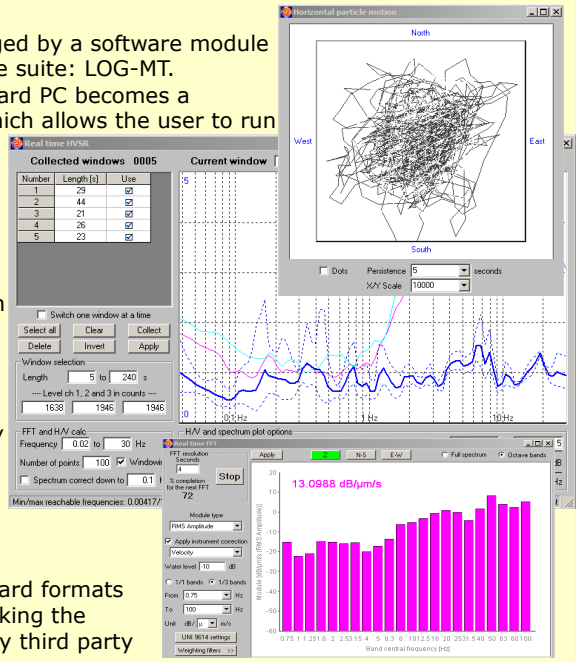
Energy
Ultra low power consumption and a battery inside make the SR04 suitable for working in the field without any external power supply. The battery provides up to 20 hours of working time.

Synchronization
Like all our instruments, the SR04 is equipped with a GPS unit for reliable and accurate UTC synchronization.

Modularity
In our designs we always use a modular approach that make upgrades, repairs, and shipping easier. This protects your investment as well as the environment.
We guarantee free lifetime firmware and software upgrades.

Professionality
Our instruments are continuously being developed with the cooperation of experts in geophysics and seismology. Our extensive list of clients includes public and private institutions worldwide, such as: NORSAR (Norway), UNAM (Mexico), Geological Survey of Namibia (Namibia), with our instruments operating in: Chile, Argentina, South Africa, Iran, Jordan, Denmark, Tibet, Spain, Sudan, Nicaragua, Panama, Venezuela, and many other countries.

The SR04 Geobox is managed by a software module of the SEISMOWIN software suite: LOG-MT.
Thanks to LOG-MT, a standard PC becomes a powerful seismic station which allows the user to run vibrational analyses (e.g. according to the UNI9916 and 9614 standards) as well seismic or geophysical surveys.



HVSR surveys can be run in real-time, making it possible to monitor the widest range of situations with maximum efficiency in terms of time and reliability of measurement.
You can get HVSR results within seconds right before your eyes.

Data can be saved in standard formats (e.g. SAF / H-V / GSE), making the GeoBox compatible with any third party software.

Technical Features

Power supply:	10-15Vdc (with power consumption less than 1 W)
Number of channels:	3 with 24 bit A/D converter (ΣΔ)
Dynamic range:	124dB (144dB, 24 bit of ENOB, between 0.1 and 10Hz)
Sampling:	simultaneous on all three channel (1 a/d per channel)
Sampling rates:	from 10 to 600 Hz
Real Time Clock:	+/-10ppm (-20/+50°C)
Sync R.Time Clock:	GPS based via PPS
Precision to UTC time:	<50µs
Data interface:	RS232, USB cable supplied
Data format:	SADC20HS binary protocol
Baud rate:	115200 baud
GPS data interface:	RS232, MEA; 4800 baud, n,8,1
Case:	Solid block of alluminum with IP66 protection grade
Operating temperature:	-20/+60°C
Dimensions:	155x140x110
Weight:	3.1 kg With 4.5Hz sensos, 4.4kg with 2Hz sensors
Conformity declaration:	CE

Sara Electronic Instruments s.r.l. reserve the right to make changes to this brochure or to the instrument without any prior notice.

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