

# GeoBox



The digital sensor SR04 GeoBox is a high-performance instrument especially suitable for acquiring signals for seismological and geophysical surveys the such 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.

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 can be equipped, on request, with a GPS unit for reliable and accurate UTC synchronization.

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 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.



Power supply: Number of channels: Dynamic range: Sampling: Sampling rates: Real Time Clock:

Sync R.Time Clock: Precision to UTC time: Data interface:

Data format: Baud rate: GPS data interface:

Case: Operating temperature:

Dimensions: Weight:

Conformity declaration:

10-15Vdc (with power consumption less than 1 W)

3 with 24 bit A/D converter ( $\Sigma\Delta$ )

124dB (144dB, 24 bit of ENOB, between 0.1 and 10Hz) simultaneous on all three channel (1 a/d per channel)

from 10 to 600 Hz +/-10ppm (-20/+50°C) GPS based via PPS (on request) <50us

RS232, USB cable supplied SADC20HS binary protocol

115200 baud

RS232, MEA; 4800 baud, n,8,1

Solid block of aluminum with IP66 protection grade -20/+60°C

155x140x110

3.1 kg With 4.5Hz sensors, 4.4kg with 2Hz sensors

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