



VELBOX

A compact and flexible seismograph. Reliable and flexible thanks our recording software SEISMONUX.

Three channels with sampling rates from 1 to 600 samples per seconds allow a variety of applications, from Nakamura's method surveys to permanent seismic monitoring.

Connectivity

The Linux o.s. offer several native protocols and we added also more protocols, among them: TCP, UDP, HTTP, FTP, SSH, Telnet, MODBUS. The unit can be accessed by console port as terminal emulator both by Ethernet and RS232; this allow fully operativity with any data carrier PSTN, GSM, GPRS, SAT, WAN, LAN, etc. Virtual Private Networking (VPN) also guarantee to reach the instrument even behind firewalls and NAT filters.

Energy

The low power consumption allow the VELBOX to be used in remote installation and powered with small accumulators and solar panels.

Synchronization

VELBOX is equipped with a GPS receiver to synchronize the data flow with the UTC time worldwide used time in seismology. Additionally NTP client (Network Time Protocol) is provided allowing synchronization regardless of the availability of GPS signal.

Modularity

In our design we always follow a modular approach allowing the instruments to be easily repaired and upgraded. This also increase the durability of the product safeguarding your investment and the environment.

Development

Client's feedback allow us to constantly improve the instrument and develop new firmware and its functionalities. Hundreds of geophysicists, civil engineers and seismologists are among our clients list as I.N.G.V., Civil Defense (DPC), ENEA., C.N.R. (in Italy) and in many other countries like: Argentina, Chile, Germany, Iran, Mexico, Nicaragua, Spain, Turkey and more...

The VELBOX is an high performance seismograph. Based on the powerful SL06 recorder it embeds three velocity sensors capable to record the seismic signal at high resolution in standard USB flash pen drives.

Several Internet services are provided like FTP Client/Server functions, and seismic protocol like **SeedLink** for real time data transmission to the most popular recording software like Earthworm, Seislog, Seiscomp, etc.; all this thanks to our proprietary **SEISMONUX software**, flexible and ease to use.

Applications

VELBOX is the commercial version of SL06 with embedded seismometers especially suitable for quick and fast deployment in case of microtremor or aftershocks studies or microtremor. Of course it is excellent for local seismic networks, single seismic stations, structure health monitoring networks. Dams, building, gas storage facilities, industry or seismogenetic structure can be monitored with highest grade of resolution.

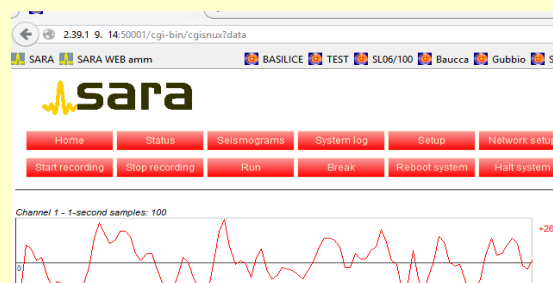
The seismometer unit standard for VELBOX is a proven reliability device with a band pass of 0.2--50Hz.

The robust case, milled out from solid block of aluminum coated and treated against corrosion, can be left on field without time limits.

With a series of automatic recording algorithms it can work in network with other SL06 instruments in order to avoid false triggers or don't miss any small signal. A number of automations are available, allowing the automatic send to a data server of all the recorded files to be analysed with modules of SEISMONUX software suite like the DESK (for seismology) or GEOEXPLORER for engineering and geological surveys.

Thanks to the WEB based management system you can control the SL06 in a very simple and easy manner.

Customization on the unit are possible, on both hardware and software side.



Some technical features

Power :	10-36V, power consumption less than 3W
Number of channel:	3 channels 24 bit ($\Sigma\Delta$) 144dB
Sensitivity:	238 nV/count
Noise floor:	< 10 microVolt peak-to-peak (< 7 microVolt RMS)
Sampling rates:	10, 20, 50, 100, 200, 250, 300, 400, 480, 500, 600 Hz
Real Time Clock:	GPS disciplined clock +/- 10ppm -20/+70°C (+/- 40µs to the respect of UTC)
GPS Antenna:	external with coaxial cable of 10 meters and BNC connector
Mass Memory:	USB pen-drives, with EXT2 file system up to 8 Terabytes
Data Format:	GSEcm6, GSEint, SAC, SAF, miniSEED, SEG2
Data Links:	Ethernet 10-100 and RS232
Triggering:	multimode STA/LTA, amplitude, IP voting and scheduled
Housing:	machined aluminum solid block IP67, wall mounting possible 205x170x107 mm
Operating temperatur.:	-20/+70°C
Sensor	
Velocitymeter:	SS02 velocity sensor model 0.2Hz-50Hz (80Hz optional) 400V/m/s
Dynamic range:	> 140dB
Kernel transducer:	high sensitivity 2Hz eigen frequency sensor

If you need more information submit your inquiry at: info@sara.pg.it

SARA Electronic Instruments s.r.l. reserve the right to modify features and prices at any time and without any prior notice.

SARA electronic instruments s.r.l. cap.soc. 100.000,00€ i.v.

06129 - Perugia - Via A.Mercuri, 4 - ITALY

Tel. +39 075 5051014 - Fax +39 075 5006315 - www.sara.pg.it - info@sara.pg.it

Reg. Trib. Perugia N-5718 - C.C.I.A.A. 109864 - C.F. e P.iva 00380320549 - N.Reg.RAEE: IT0802000001128