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Available Models

Mod.16S24-N (24 channels)

Mod.16SG24-N (combined system electrical imaging + 24 channel seismograph)

12 channel versions available on request

Available accessories

3D Borehole geophone DHTG50 (50m of cable) & DHTG100 (100m of cable)

Seismic cables (different length and spacing available on request)

Vertical & horizontal geophones

Hydrophones

Striking plate for P & S waves



## P.A.S.I. Seismograph Mod.16S24-N

P.A.S.I. seismograph Mod. 16S24-N is not only characterized by its innovative design and its completely renewed acquisition software. With the possibility to be implemented with the 16G electrical imaging system, so to have, combined in the same instrument, two powerful and sophisticated systems for a detailed environmental analysis) it really becomes the reliable solution for yours field applications.

Thanks to the large 10.6" LCD touch screen, the user interface results particularly immediate and complete at the same time.

The logical steps proposed for setting each kind of profile (refraction, reflection, MASW, microtremors, downhole, etc..) by the sophisticated acquisition software will allow the user to always take the situation under control.

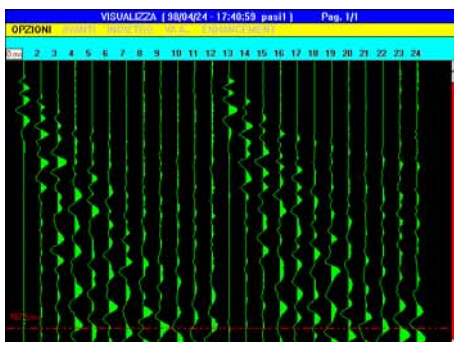
All data are then saved on the internal hard disk, ready for a fast transfer to PC via USB for the subsequent data processing.

Finally, **the integrated "DOWNHOLE" software module**, which is fundamental for facilitating this particular kind of acquisition (also refer also to DHTG borehole geophone description), is an important value added factor for the instrument.

### Applications

- Geological stratigraphy at small and medium depth
- Depth and geometry determination of bedrock
- determination of Vs30 profile according to the new antiseismic regulations (MASW, microtremors, downhole, ecc..)
- Detailed investigations on landslides for the reconstruction of the sliding surface
- Foundation studies
- Preliminary investigations for the realization of important works (railroads, roads, oil pipelines)
- Cost estimation for excavation and earth levelling
- Evaluation of gravel, sand, clay deposits
- Mineral exploration

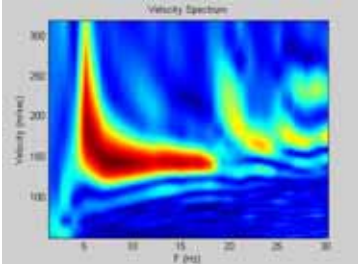
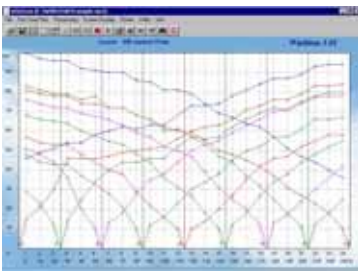
Setting of acquisition parameters (left); acquisition window (below); Mod. 16SG24-N (right)





## Main functions

- 24 channels (12 channel version available on request)
- National Instruments® acquisition boards
- 10.6" LCD touch screen
- Via Eden processor up to 1GHz
- 32 bit operating system and software
- Networking and diagnostic board
- 60 Gb internal HD
- sampling time from 32 microsec up to 2 millisecc (all channels)
- record length extended up to 65536 millisecc
- Filter activation: in acquisition or post-acquisition
- Antialiasing filters: active, LPF, 8<sup>th</sup> in Butterworth order; attenuation -48dB/oct (-160dB/dec);  $f_0=5/8$  fnyq; accuracy  $\pm 1\%$  cutting frequency
- Enhancement with/without total/partial preview
- Geophone polarity inversion
- Marker for the determination of the video points position on the time scale; possibility to save the first arrivals on file for data download to PC
- A.G.C. Automatic Gain Control
- Delay: Pre-trigger 0-10ms (step of 1ms); Post-trigger 0-16000ms (step of 1ms)
- Display in wiggle-trace or variable area
- Noise-monitor with "real time" cascade display
- Automatic or manual trace-size for each channel
- Automatic recording of acquisitions
- Data download to PC via USB2
- Automatic calibrations
- Data codification in SEG-2 format
- Possibility to connect more instruments in series



## Available Models

Model	Code	Bit	Channels
16S24-N	SIS-122-000	24*	24
16S12-N (on request)	SIS-120-000	24*	12

## Possible upgrade

Model	Code	Bit	Channels	Electrical imaging
16S24-N	16SG24-N	24*	-	+

\* with oversampling & postprocessing

All 16S-N Series seismographs can perform MASW, microtremors and downhole acquisitions to obtain Vs30 profiles and ground characterization accordingly to the newest antiseismic regulations.