

ULTRASONIC VELOCITY MEASURING SYSTEM FOR ROCK SAMPLE

SonicViewer-SX



< Abstract >

The SonicViewer-SX is an instrument for the ultrasonic wave velocity measurement of rock samples.

It is possible to read the P and S wave propagation with high accuracy, because it contains high voltage (500V) pulser and receiver which consist of 12 bit/ 50nsec A to D converter. It can calculate dynamic Poisson's ratio, dynamic elastic modulus and dynamic shear modulus by built in software. It's based on the Windows XP with color display, Hard disk drive, USB2.0 ports with higher quality and reliable field performance.

< Features >

- Propagation time can read from wave form of P and S with high accuracy.
- High resolution and high speed 12 bit/50nsec A to D converter available.
- Built in software available for calculate of dynamic Poisson's ratio, dynamic shear modulus etc.
- The measured data can be stored in large capacity of internal hard disk.
- A mouse can be used with this unit.
- High brightness, large screen (10.4 inch) XGA/TFT color display has been adopted.
- Signal stacking function improves the S/N ratio and widen its applicability.

<Specifications>

●Transmitter

Output voltage : 500V
Pulse width : 6 μ sec \pm 2 μ sec

●Receiver

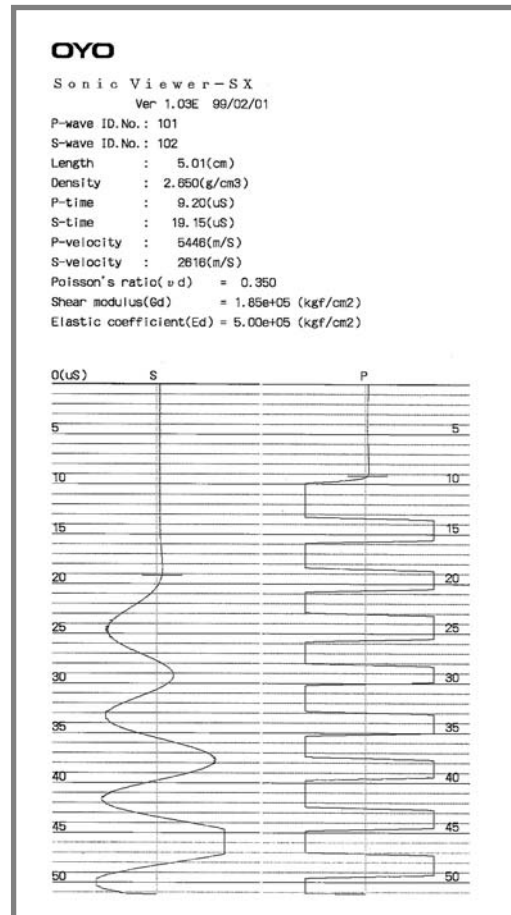
Input impedance : 1M Ω
Gain : 1, 2, 5, 10, 20, 50, 100, 200
Frequency range : 10 – 1000 KHz
Low pass filter : 200 KHz

A/D resolution : 12 bit
Sample rate : 50, 100, 200, 500, 1000, 2000nsec
Data length : 1024

●System

CPU :ULV Intel Celeron Processor 400MHz
Internal HDD : 80GB
Memory : 256MB
Interface : USB2.0 port \times 3 (Front 2, Rear 1)
Display : 10.4", XGA/TFT color LCD
Power requirement : DC12V (10.5V to 13.2V)
Dimensions : 330 x 270 x 220 mm
Weight : 8kg

<Example record>



<Option>



- AC adapter
Input voltage : AC 85-120V
Output power : DC12V, 14A



- Thermal printer
Printing width : 108mm
Paper width : 112mm
Resolution : 12 dots/mm



- Transducers
P-wave transducer: 200KHz
500khz
S-wave transducer: 100KHz

Please note specifications are subject to change without notice for the improvement.

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