GEOLOGICAL, GEOPHYSICAL, GEOTECHNICAL SERVICES AND INSTRUMENTS

OYO

Ultra Sonic Velocity Measurement for Rock Sample



<Abstract>

SonicViewer 2i measures the propagation time of boring core and rock samples using ultrasonic waves with high accuracy, obtains the P wave and S wave velocity, and calculates the dynamic constants (dynamic Poisson's ratio, dynamic elastic modulus, dynamic Shear coefficient) can be calculated. A specimen is sandwiched between two transducers with matching characteristics, ultrasonic waves are generated by applying high voltage pulses to one transducer, and the other transducer receives the wave propagating through the specimen, and digitally converted at high speed and displayed as waveform data on the display, from which the propagation time can be read with high accuracy.

<Feature>

- Accurate reading of propagation time of P and S wave from waveform data is available.
- The digital stacking function can improve the SN ratio
- A tablet PC equipped with a 10.1-inch touch panel type large-size color LCD are mounted for easy operation.
- Measured data is saved on a tablet PC. This saved data on tablet PC is available to retrieve on USD memory stick easily from operating menu.
- Built-in function to calculate dynamic Poisson's ratio, dynamic shear modulus and dynamic elastic modulus.

<specification></specification>	
■ Transmitter	
Transducer Deriving Voltage	: 600 V
Transmitter Drive Pulse Width	: 6 µsec
Receiver	
Components	: 1 ch
Input Impedance	: 1 MΩ
Gain	: × 1, 2, 5, 10, 20, 50, 100, and 200
Frequency	: 10 KHz to 1000 KHz
Low Pass Filter	: Cut Off Frequency fc = 200 KHz, 1000 KHz
Data Resolution	: 16 bit
Sampling Rate	: 100, 200, 500, 1000, and 2000 nsec
Memory Length	: 1024, 2048 words
■ System	
Display	: 10.1 inch TFT Color LCD 1920×1200 pixel
OS	: Windows10 Professional 64bit
Storage Device	: SSD 128 GB
Interface	: USB 2.0 × 1 port
Power	: AC 100 V to 240 V
Voltage Consumption	: Max. 170 W (Charging a Tablet PC)
Operating Temperature	: 0 to +45 °C
Dimensions	: 450 (W) x 175 (H) x 335 (D) mm
Weight	: 9 kg
[Analpris] P: C004, P. 002 Tp: 21.3[unset] Vn 23 S: C004, S: 001 Th: 51.5[unset] Vn 24	I01[m/sec] *Shear modulus Gd:1.28++004 [kg//cm*2] procorporation
	Setting
P AM	
(159) 21.3(usec) (21.2(usec))	MAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
· · · · ·	Stop
S (x200)	
81.9(usec) (52.0(usec))	
	30uz 40us 50us 100uz 70us 90us 50us 100us System
	→ + ±2 Cursor < > 2019-09-27 10/26/06 152/21(V)
Display of the measurement	
Please note specifications are subject to change without notice for the improvement.	
• Instruments & So	
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