

MAE



CRONOSONIC

ultrasonic tests Integrated monitor

Integrated battery

Ultrasonic Pulse Velocity through Concrete

Cronosonic is an instrument for ultrasonic pulse velocity through transparency which can be used to investigate poles, truss, diaphragms, laboratory samples and many other structures made of concrete or stone. It performs measurements with direct, indirect and semi direct method. Very compact instrument is provided with display for realtime visualization of the time of fly (T.O.F.) and velocity of investigated material. Measurements can be transferred to a PC through USB connection. For the visualization of wave form it is possible to interface instrument with external oscilloscope. Ultrasonic pulse velocity survey is a standardized system in diagnostics of concrete. From analysis of compression P waves into material, it is possible to get Time of Fly (T.O.F.) of ultrasonic waves and propagation speed of the same into investigated material. This high frequency method is particularly indicated for compact materials such as dried concrete and on structural elements of reduced dimensions as trusses, poles, etc. This instrument series allows to estimate mechanical characteristics of materials, evaluate homogeneity rate and any eventual fractures, cavities, defects or anomalies of the element.

Instrument complies to regulation C597 - 09 Standard Test Method for Pulse Velocity Through Concrete.

Methodologies

Ultrasonic Pulse Velocity

General

Number of channels	2 TX/RX
Internal storage	250 measures
Operating temperature	-20/+80 °C
Power supply	Rechargeable internal battery
Interface	mini-USB charge / data download; BNC to oscilloscope
Display	3" visualization of time of fly (T.O.F.) and speed
Reference standards	ASTM C597 - Standard Test Method for Pulse Velocity Through Concrete

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General

Dimensions 17,2 x 9,2 x 3,9 cm

Acquisition

Resolution 0.1 μ s

Measuring range > 5000 μ s

Filter bandwidth 20-80KHz

Amplifier gain 50dB

Minimum trigger in 145 mV

Probes

Typology Surface contact

Frequency 55 kHz

