

Ultrasonic Quality Assessment Technology For Concrete



ULTRASONIC CONCRETE TESTER (UCT)

(ULTRASONIC PULSE VELOCITY METER)



4600



4600 L

Meets National And International Standards IS-13311 Part(1), BS-4408, BS-1881 & ASTM C-597

- * Non destructive Quality Assessment of in situ or precast concrete.
- * Crack & Void detection.
- * Determination of Homogeneity of concrete.
- * Elastic property measurement of concrete.

PORTABLE ULTRASONIC CONCRETE TESTER

Range :Upto 5 Meters in Concrete.

Accuracy : ± 100 nano seconds

Frequency response : 20 kHz to 500 kHz.

UCT is a fully portable instrument for assessing the quality of concrete in “in situ” or precast. It complies with the British Standard IS-13311 Part(1), BS -4408 (Part V – 1974), BS-1181 and ASTM C-597. It is designed with field conditions in mind and is very simple to operate. Its accuracy and stability are unmatched. It generates low frequency pulses and measures the time of flight in the material. The time is displayed by 5 digit display. The time of flight and hence the velocity is related to the mechanical quality of concrete. The majority of concrete testing requires transducers with frequency of 50 to 100 kHz. However higher frequencies are preferred for testing small specimens and achieving better timing accuracies and lower frequencies for longer structures/higher penetration. Wide range of transducers are offered with UCT. The high quality of transducers has been exploited to the fullest extent and the accuracy of the measurement is improved over the entire range to 100 nano seconds.

SPECIFICATIONS

	4600	4600L	4600 M	4600 G
Display	5 digit LED	128 x 64 Graphic LCD	2 x 16 LCD	240 x 64 Graphic LCD
Zero Correction	Through Multiturn Potentiometer	Through Multiturn Potentiometer	Through Keypad	Through Keypad
Battery Indication	LED on Front Panel	Level Bar LCD display	On LCD Display	Level Bar LCD display
Dimensions (mm)	310 x 225 x 105	310 x 225 x 105	230 x 245 x 90	230 x 185 x 145
Weight (Kg) Including Batteries	3.2	3.2	3.4	3.7

SPECIFICATIONS 4600 / 4600L/4600 M / 4600G

- * Test Mode : Through Transmission mode.
- * Range : 0.1 μ sec.to 9999.9 μ sec.
- * Measurement Units : Time.
- * Resolution : \pm 0.1 μ sec.
- * Calibrated Accuracy : \pm 0.1 μ sec.
- * Transducer : Contact Type.
- * Operating Temperature : 0^o to 50^o C.
- * Power : 7.2V DC.
- * Display Response time : Instantaneous.
- * Testing range: Upto 5meters & 5 meters and above with amplifier and suitable probes.

ADDITIONAL FEATURES 4600 M

- * LCD display
- * Direct velocity measurement
- * USB output
- * Memory for calibration & measurement data
- * Curve fitting for mechanical parameters Vs Velocity Correlation.

ADDITIONAL FEATURES 4600 G

- * Large Graphic LCD display
- * Bidirectional data transfer with PC
- * Elastic Mode for elastic constant measurement with special probes
- * All other featus of 4600 M

STANDARD ACCESSORIES

- * 1 set of 7.2 volt NiCd Cells.
- * Probe Cables : 2 Nos. (4m each).
- * Transducers : 2 Nos. (2" diameter, 60 kHz).
- * Calibration Block.
- * Software for Data Transfer (4600 M /4600 G only)
- * USB cable : 1 No. (4600 M / 4600G only)
- * Cover/Bag

OPTIONAL TRANSDUCERS

Available in 1" and 2" sizes & frequency range 25 - 250 KHz (UHF/BNC connectors)

Equipments & Probes available for Wood, Rocks and Similar Materials.

NOTE: Technical specifications are subject to change without prior notice, due to continuous upgradation.

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4600M



4600G

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