

NON-DESTRUCTIVE CONCRETE TESTING in STRUCTURES

Product Code

UTC-3050	Pundit Lab+ Ultrasonic Pulse Velocity Tester (Proceq)
UTC-3055	S-Wave Transducers, 250 kHz, for UTC-3050 (Proceq)
UTC-3060	Pundit PL-200 Ultrasonic Pulse Velocity Tester (Proceq)
UTC-3065	Pundit PL-200PE Ultrasonic Pulse Velocity Tester (Proceq)

Standards

EN 12504-4; ASTM C 597-02; BS 1881 Part 203; ISO1920-7:2004; IS13311; CECS21



Pundit Lab+



Pundit PL200-PE

The measurement of pulse velocity can be used for the determination of the uniformity of concrete, the presence of cracks or voids, changes in properties with time and in the determination of dynamic physical properties. EN 12504:4 gives guidance on testing fresh concrete, hardened concrete and concrete in structures. It specifies a method for the determination of the velocity of propagation of pulses of ultrasonic longitudinal waves in concrete.

UTC-3050 is an ultrasonic pulse velocity test instrument which is used to examine the quality of concrete. It features online data acquisition, waveform analysis and full remote control of all transmission parameters. Along with the traditional transit time and pulse velocity measurement, UTC-3050 offers path length measurement, perpendicular crack depth measurement and surface velocity measurement. Optimized pulse shaping gives greater transmission range at lower voltage levels. This, coupled with automated combination of the transmitter voltage and the receiver gain, ensures an optimum received signal level, guaranteeing accurate and stable measurements. An integrated waveform display allows manual triggering of the received waveform. Pundit Lab+ offers other features such as the possibility to estimate compressive strength by Sonreb Method in combination with a rebound hammer value.

The Pundit PL-200 is a best-in-class Ultrasonic pulse velocity (UPV) test instrument to examine the quality of concrete and other materials such as rock, wood and ceramics.

The Pundit PL-200PE employs state-of-the-art pulse echo technology to extend the ultrasonic application to objects where access is restricted to a single side.

FEATURES OF PUNDIT LAB+

- Integrated wave form display
- Remote control; A USB connection and the Pundit Link application allow full remote control of all features of the ultrasonic test equipment
- Full remote control of the instrument with a third party software
- Direct data logging on the PC
- Runs on battery supply, mains supply via AC adaptor and can also be powered from a PC via the USB connection.
- Supports a wide range of transducers from 24 kHz up to 500 kHz, making it suitable not only for concrete and rock, but also for other materials such as graphite, ceramics, woods, etc.
- Exponential transducers for rough surfaces and shear wave transducers for estimation of dynamic modulus of elasticity complete the portfolio.
- Integrated amplifier gain stage
- Real time stamp
- Direct estimation of compressive strength
- Combined ultrasonic pulse velocity / rebound value estimate of compressive strength (SONREB)
- Data review list on the instrument

FEATURES OF PUNDIT PL SERIES

- Single side determination of slab thickness
- Detection and localization of voids, pipes, delaminations and honeycombing
- Advanced echo tracking technology helps identifying the main echo
- Control buttons and optical feedback directly on the probe increase measurement efficiency
- Automatic estimation of the Pulse Velocity
- Easy B-Scan measuring through center marker and rulers directly on the probe
- Dry-contact transducer: no couplant required, suited for measuring on rough surfaces
- Lightweight and ergonomical handling
- Expandable with Pulse Velocity transducers

Technical Specifications

	Pundit Lab+	Pundit PL Series
Range	0.1 – 9999 μ s	0.1 - 7930 μ s
Resolution	0.1 μ s	0.1 μ s (< 793 μ s), 1 μ s (> 793 μ s)
Display	79 x 21 mm passive matrix OLED	7" colour display 800x480 pixels
Memory	Non-volatile, > 500 measured values	Internal 8 GB Flash memory
Power Supply	4x AA batteries (> 20 hours continuous use)	Lithium Polymer, 3.6 V, 14.0 Ah (> 8 hours continuous use)
Operating temperature	-10° to 60°C (0° to 140°F)	0°C - 30°C (Charging, running instrument) 0°C - 40°C (Charging, instrument is off) -10°C - 50°C (Non-charging)
Humidity	< 95% RH, non condensing	< 95 % RH, non condensing
Dimensions	175x55x220 mm (packed)	175x55x220 mm (packed)
Weight (approx.)	1.5 kg (packed)	1.5 kg (packed)