

Pulse Velocity Measurement

The basic principle of this method of testing is that the velocity of an ultrasonic pulse through concrete is related to its density and elastic properties. Some care is necessary when testing, but an experienced operator may obtain a considerable amount of information about a concrete member. The advantage of this method is that the pulse passes through the complete thickness of the concrete so that the significant defects can be detected.

Applications

The measurement of concrete uniformity

Determination of the presence or absence of voids, cracks and other imperfections

Deterioration of the concrete which might have occurred due to age or through the action of fire, frost or chemical attack

Measurement of layer thickness and elastic modulus
Determination and monitoring of concrete strength

Pundit

BS 1881-203, EN 12504-4; ASTM C597

- **Non-destructive strength testing**
- **Crack and void detection**
- **Measurement of layer thickness and elastic modulus**
- **Uniformity and deterioration of concrete**

The Pundit is a fully portable instrument for assessing the quality of concrete either in-situ or pre-cast, and complies with BS 1881-203, EN 12504-4 and ASTM C597.

It has been designed with site testing particularly in mind and is simple to operate, with a high order of accuracy and stability.

The majority of concrete testing will require transducers with a frequency of 54 kHz.

As standard the unit is supplied with Windows compatible software, enabling test results to be downloaded to PC.

Data is presented in Excel (this needs to be resident on the PC).

Specification

Dimensions (l x w x h)	160 x 250 x 100 mm
Time measurement	0.1 to 999.9 m sec
Ranges	0.1 to 999.9 m sec 1 to 9999 m sec
Accuracy	± 0.1 m sec
Transmitter, pulse	1.2 kV, 500 V or 250 V, 1.5 msec
Power supply	Battery: Ni-Cad rechargeable Mains: 110 – 240V AC, 50 – 60 Hz, 1 ph
Display	128 x 128 dot LCD with back lighting
Weight	8.2 kg

Ordering Information

EL35-2301/09

Pundit Plus Ultrasonic Concrete Tester complete with two 54 kHz transducers each with 3.6 metres of cable, coupling agent, carrying case and instruction manual. *Weight 8.2 kg*
For 110 – 220 V AC, 50 – 60 Hz, 1 ph

Spare

EL35-2305

Coupling Agent, thick grade

EL35-2301/09 Pundit Plus Ultrasonic Tester

