

## Surfer (UK1401) – UPV Tester

The Surfer Ultrasonic Tester is suitable for the measuring of time and velocity of ultrasonic p-waves in hard materials including concrete, rocks and ceramics. The Surfer has major advantages of other products on the market in that it doesn't require coupling gel and takes seconds to perform the test. This improves work flow, especially where a large volume of testing is to be carried out.

### Applications

There are many applications for the Surfer, including:

- The determination of the strength and integrity of concrete. The evaluation is based on correlation the velocity of ultrasound waves in material and its mechanical parameters and physical condition
- Search of close-to-surface flaws by velocity decreasing or increasing around a potential flaw
- Evaluation of the degree of anisotropy in composite materials
- Evaluation of the degree of concrete aging
- Automatically evaluation of crack depths perpendicular to the concrete surface
- Evaluation of porosity and fissuring in materials

### Features

The device features an ergonomic body made from light weight shock-proof plastic that makes it very convenient to work with in field. With two built-in DPC (dry point contact) transducers it allows Ultrasonic Pulse Velocity testing to take place without contact liquid. The transducers are wear-resistant and are not influenced by condition of surface allowing the user to without surface preparation.

- Easy testing in seconds
- Automated crack depth mode
- Built-in automatic gain regulation system
- Audible indication of test success
- Data logs up to 4000 readings with the ability to group readings, allows you to organise data
- Infrared data transfer to PC using an excel macro
- Simple operation using 5 button keyboard for a quick learning curve
- Automatic power down to save batteries on site

## Technical Specifications

<b>Time measurement range</b>	15 - 100 $\mu$ s
<b>Velocity measurement range</b>	1500 - 9999 m/s
<b>Crack depth measurement range</b>	10-50 mm
<b>Measuring error</b>	$\pm$ 1%
<b>Working frequency</b>	50 kHz
<b>Operation temperature range</b>	-20 $^{\circ}$ ? to +50 $^{\circ}$ ?
<b>Operation time</b>	100h
<b>Size</b>	200 x 120 x 35 mm
<b>Weight of electronic unit</b>	350g
<b>Quantity of objects in memory</b>	4000

## About PCTE

PCTE have over 30 years' experience in the measurement and testing of construction materials. PCTE can provide more than just the equipment, they can provide expert training. PCTE have a service centre in Sydney in which they can provide calibration, repairs and warranty repairs.

## Other Equipment

PCTE supply three main ranges: NDT, Lab and Geotech Instrumentation.

NDT includes: Rebound Hammers, Covermeters, Ultrasonics, GPR, Corrosion Testing, Coating Testing and Foundation Testing

Lab includes equipment for: Concrete, Cement, Aggregate, Soil, Asphalt and Metal

Geotech Instrumentation includes: Strain Gauges, Piezometers, Inclometers, Extensometers, Tiltmeters, Load Cells and Dataloggers