

Crack Measuring

Digital Position Strain Gauge Deformation Meter

The Digital Position Strain Gauge Deformation Meter shown here consists of a digital dial gauge attached to a bar. A fixed conical point is mounted at one end of the bar, and a moving conical point is mounted on a knife edge pivot at the opposite end.

A setting out bar is used to position pre-drilled stainless steel discs which are attached to the structure using a suitable adhesive. Each time a reading has to be taken, the conical points of the gauge are inserted into the holes in the discs and the reading on the dial gauge noted. In this way, strain changes in the structure are converted into a change in the reading on the dial gauge.

The gauge has been designed so that only minor temperature corrections are required for changes in ambient temperature, and an Invar reference bar is provided for this purpose. Digital Gauges are available for every size except 50 mm, simply because the digital gauge won't fit on the smallest gauge.



Measuring Magnifier

Crack widths are normally limited to 0.2 mm or 0.3 mm in concrete structures. This inexpensive crack measuring device enables accurate determination of whether cracks exceed this limit.

- Magnification 10x
- Measuring range 20 mm x 0.1 mm
- Field of View 32mm
- Special design permitting to read on light and dark objects
- Plastic case

This loupe also comes in a self-illuminating model. Powered by two c-cell batteries this model can be used in those poorly lit areas where the natural light is dim or non-existent.



Crack Width Meter

The crack width meter is used as a comparator to give an approximate crack size during visual surveys.

- Made of durable plastic
- Graduations from 0.1 mm to 2.5 mm

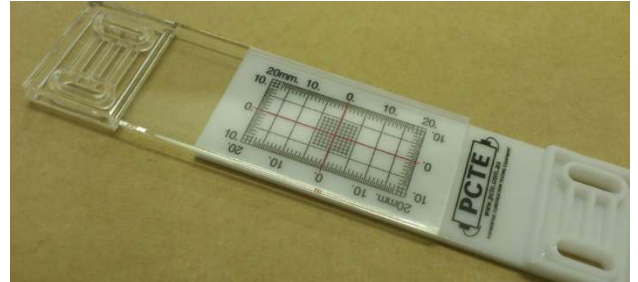


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Crack Monitor

On some structures the rotation at cracks is also significant. This gauge is specifically designed to measure rotation, transverse and longitudinal movement. The crack monitor is:

- Made of polycarbonate
- Used for measuring movements: horizontal ± 20 mm, ± 10 mm.
- Reading accuracy of: ± 0.5 mm on grid.



Field Microscope

The field microscope is a small sized lightweight and conveniently portable microscope. Designed to cover the range between high grade heavily equipped microscopes and measuring magnifiers. With a magnification of 50 times this microscope can be used to accurately measure the width of cracks and also combines a calibrated focusing ring allow the depth of cracks to also be accurately measured.

- Magnification 50x
- Measuring Range 1.6 mm x 0.02 mm
- Field of View 1.7 mm
- Comes with light



Crack Meter

The Vibrating Wire Crack Meter are used to measure movement across surface cracks and joints in concrete, rock, soil and structures. They consist of a sensor outer body tube and an inner free sliding rod which is connected at the internal end to a vibrating wire sensor by a spring.



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.

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

Crack Measuring



Scale mode takes the same measurement but also highlights the extent of the crack in green.

In intelligent mode the software determines an average measurement over several points of a crack visible in the display, with a visual indication of each measurement and the average displayed/

The unit is supplied complete with a camera probe, extension arm with flexible coupling and a clear bright LCD screen controller.

Crack Width Measuring Camera

The crack width camera combines smart crack detection and measurement with a close focus camera to immediately measure and document crack widths in a construction project.

The most critical criteria for long term durability of a concrete structure is sufficient concrete cover with no defects. Cracking in cover concrete provides a direct path for faster ingress of chlorides and carbonation and a maximum crack width is a common specification requirement.

Crack mapping of complete structures is slow and has issues with trace ability. The use of a data logging camera to record crack widths combines measurement with recording and improves the ergonomics of crack mapping on site.

Applications

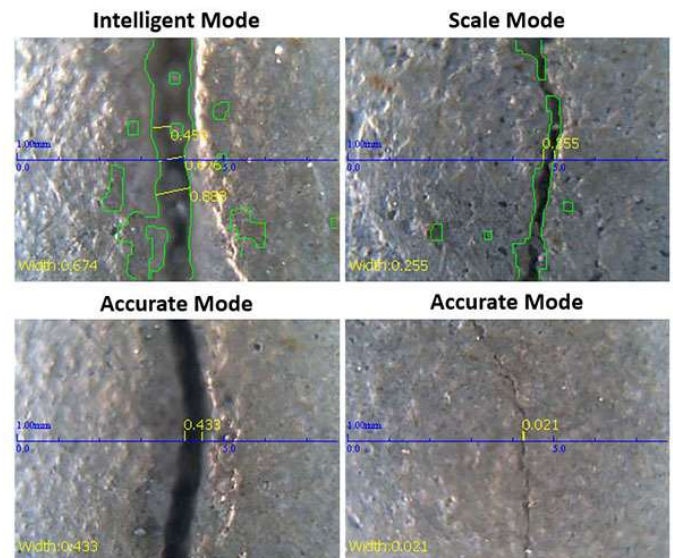
The Crack Width Measuring Camera is suitable for the measurement of crack widths between 0.02 and 6.5 mm.

It can be used onsite to record crack width measurements and to take measurements in hard to reach areas with an extension arm.

Features

The probe holds a CMOS camera with 60 x magnification.

In Accurate Mode the unit measures the precise width of a crack.



Measuring range	0.01-6.50mm
Accuracy	0.02mm
Magnification	60 X
Image Formats	JPEG (Around 10K per image)
Memory	Internal memory (SD card extension)
Interface	Lithium battery
Power	USB 2.0
Operating Temperature	-10°C +50°C
Dimensions	180mm x 100mm x 50mm
Weight	1 kg

Supplied with Crack Width Gauge Tablet Controller, CMOS Camera Probe, Extension Rod and Bracket, Camera Cable, Charging adaptor.