ACCOLADE
MEASUREMENT

# Crack Width Monitoring

**Typical applications include:**

- Historic Building Monitoring
- Structural Monitoring
- Construction Asset Monitoring
- Subsidence Monitoring
- Foundation Monitoring

**Commonly used instrumentation detailed below:**

- Demec Gauge
- Potentiometer Crack Meter
- Vibrating Wire Crack Meter
- Tell Tales
- Callipers

**CONTACT US NOW:** **T: +44 (0) 1707 377 448** **E: *mail@accolademeasure.co.uk***

CONTACT US NOW: T: +44 (0) 1707 377 448 E: *mail@accolademeasure.co.uk*

ACCOLADE MEASUREMENT

# Demec Gauge

| | |
|---|---|
| **Variables measured** | **Strain (με) & convert to displacement (mm)** |
| **Range** | **50mm to 500mm** |
| **Accuracy** | **±0.001mm (±1.6με)** |
| **Resolution** | **0.0008mm (1.3με)** |
| **Repeatability** | **±0.0015mm (±2.4με)** |
| **System operation** | **Manual** |
| **Data access** | **On site** |
| **Reading frequency** | **Per visit** |

**Additional Information:**

- Suited for use on short to medium term projects.
- Cheap & simple installation.
- Excellent for low frequency monitoring.
- Install Demec studs either side of a crack and use Demec gauge (mechanical strain gauge) to measure the strain & thus distance between the two fixed studs.

ACCOLADE MEASUREMENT

CONTACT US NOW: T: +44 (0) 1707 377 448 E: *mail@accolademeasure.co.uk*

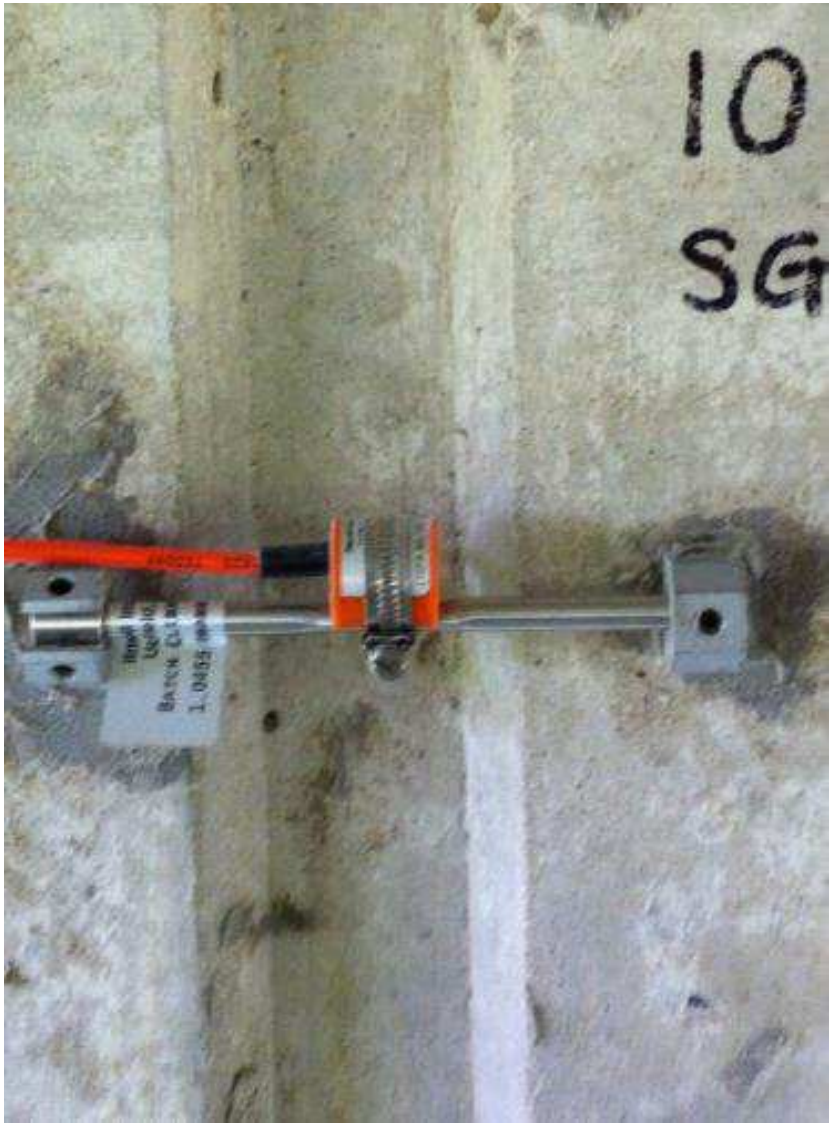
# Crack Meter (Potentiometer)

| | |
|---|---|
| **Variables measured** | **Displacement (mm)** |
| **Range** | **25mm to 300mm** |
| **Accuracy** | **±0.0125mm (±0.05% full scale)** |
| **Resolution** | **0.01mm (0.04% full scale)** |
| **Repeatability** | **±0.01mm (±0.04% full scale)** |
| **System operation** | **Automated** |
| **Data access** | **Remotely or on site** |
| **Reading frequency** | **Sub second** |

**Additional Information:**

- Suited for use on short to medium term projects.
- Cheap, simple & accurate.
- As the crack width changes, the connection rod within the potentiometer body moves which causes a change in electrical output. This change in electrical output is converted to mm displacement.

CONTACT US NOW: T: +44 (0) 1707 377 448 E: *mail@accolademeasure.co.uk*




# Crack Meter (Vibrating Wire Strain Gauge)

| | |
|---|---|
| **Variables measured** | **Strain (με) & convert to displacement (mm)** |
| **Range** | **30mm to 100mm** |
| **Accuracy** | **±0.06mm (±0.2% full scale)** |
| **Resolution** | **0.0075mm (0.025% full scale)** |
| **Repeatability** | **±0.1mm (±0.3% full scale)** |
| **System operation** | **Automated** |
| **Data access** | **Remotely** |
| **Reading frequency** | **>1min** |

**Additional Information:**

- Suited for use on short to long term projects.
- Accurate, non-contact measurement system, ideal for use in difficult to access areas.
- Displacement readings are taken off the immediate area of focus only.
- The sensor is installed across the width of a crack. Within the sensor, a high carbon steel wire is held between a fixed point and a moveable point. The wire is plucked / excited via a magnetic coil adjacent to the wire and the resulting frequency is measured by the coil. Changes to the resulting wire frequency are relative to the wire tension and therefore crack width.

CONTACT US NOW: T: +44 (0) 1707 377 448 E: *mail@accolademeasure.co.uk*

## More detail available if required:

- Callipers
- Tell Tales

Please get in touch if you would like more information.