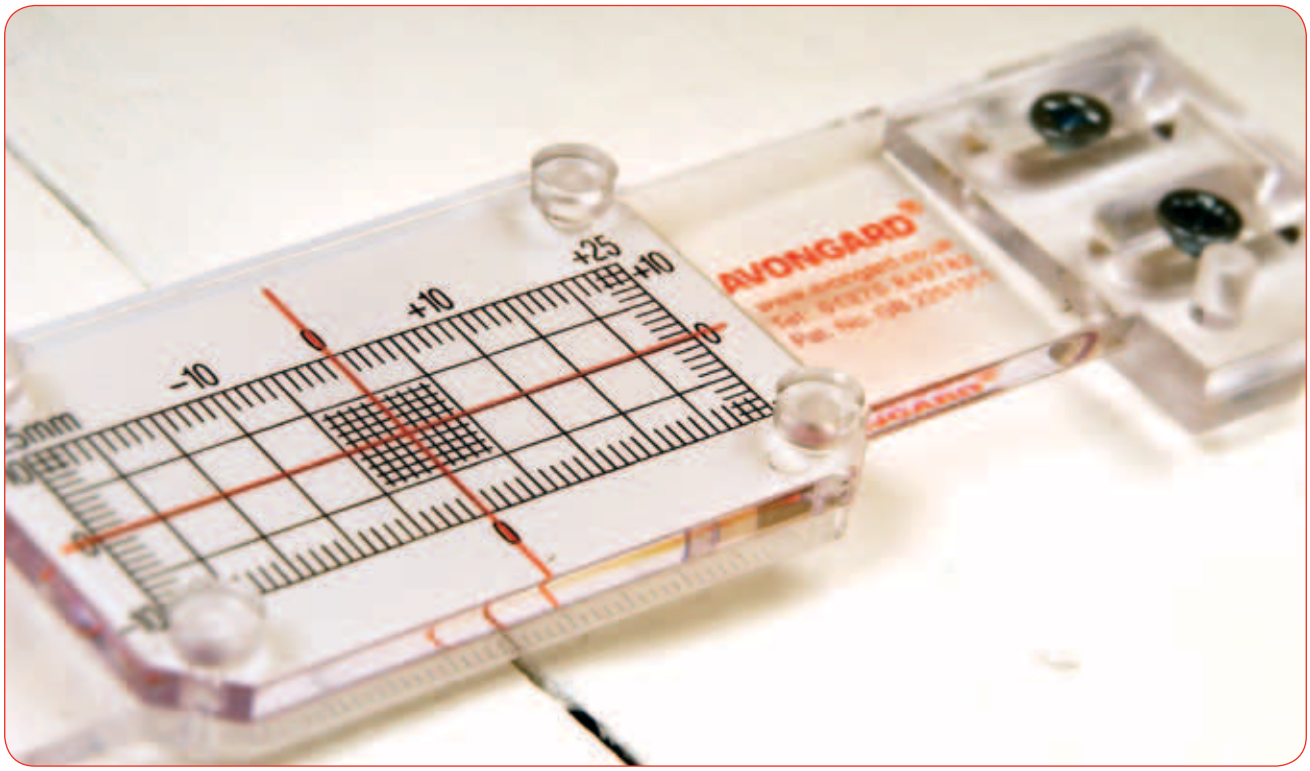
AVONGARD®

SPECIALISTS IN STRUCTURAL MONITORING EQUIPMENT

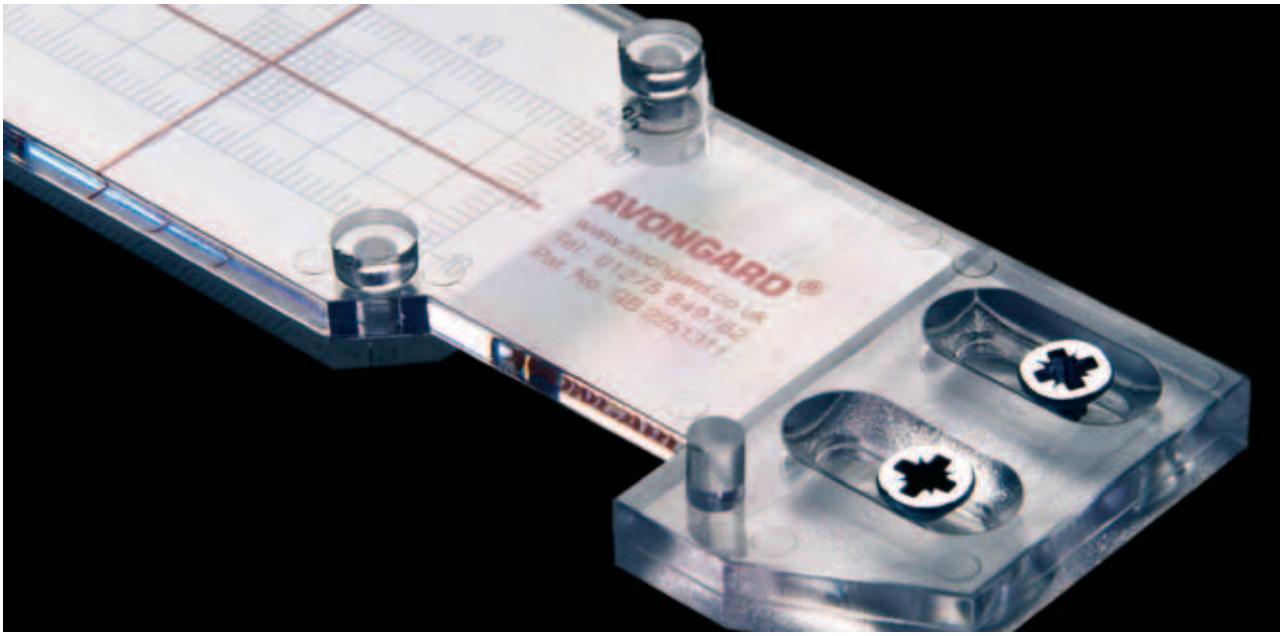


Crack Monitoring Products

2012

www.avongard.co.uk

About Avongard
& Index



Most buildings crack at some time during their service life. Monitoring the changes in the horizontal and vertical movement across a crack will assist in diagnosing the cause of the crack and deciding on the appropriate remedial work.

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About Avongard Tell-Tales

Avongard Tell-Tales are precision gauges that consist of two plates which overlap for a part of their length. The bottom plate is calibrated in millimetres and the top plate is transparent and marked with a hairline cursor in the form of a cross.

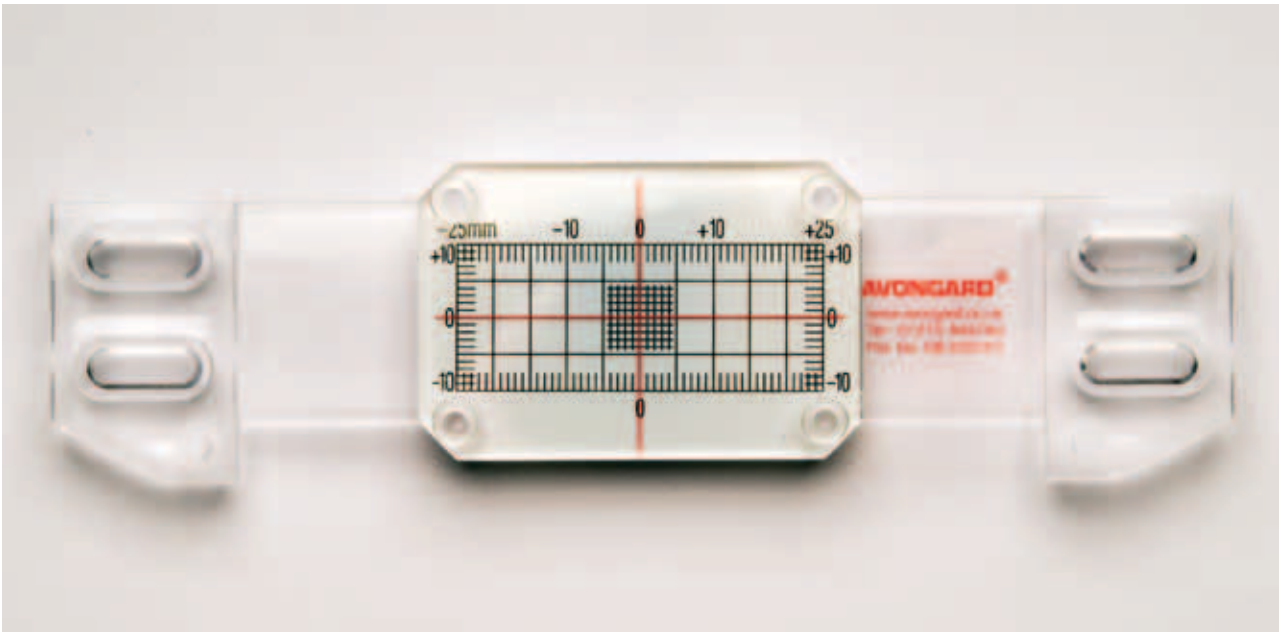
Avongard Tell-Tales are suitable for internal and external use.

The Tell-Tales are manufactured in vandal resistant polycarbonate. The co-efficient of linear thermal expansion is 7.0×10^{-5} cm/cm/^{o}C for ambient temperatures between -30^{o}C to +30^{o}C.

Manufactured to conform to BS EN ISO 9001:2008

(All specifications subject to change without notice.)

Plus Tell-Tale



The Avongard Tell-Tale Plus monitors horizontal and vertical movement across a crack on a flat surface. The Tell-Tale is preset at zero with four pegs. The pegs are removed after the Tell-Tale is fixed across the crack.

Specifications

• Avongard Tell-Tales are precision gauges that consist of two plates which overlap for a part of their length. The bottom plate is calibrated in milli-metres and the top plate is transparent and marked with a hairline cursor in the form of a cross.

• Fix using screws and adhesive (not included). (see page 10).

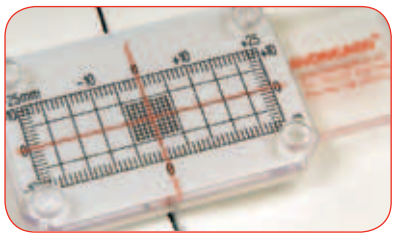
• Supplied with full instructions and Crack Record Sheet.

• Manufactured to conform to BS EN ISO 9001:2008.

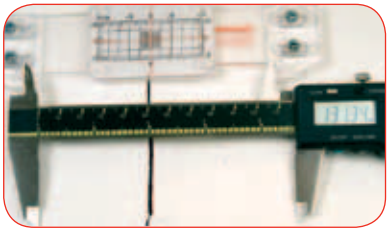
(All specifications subject to change without notice.)

Applications

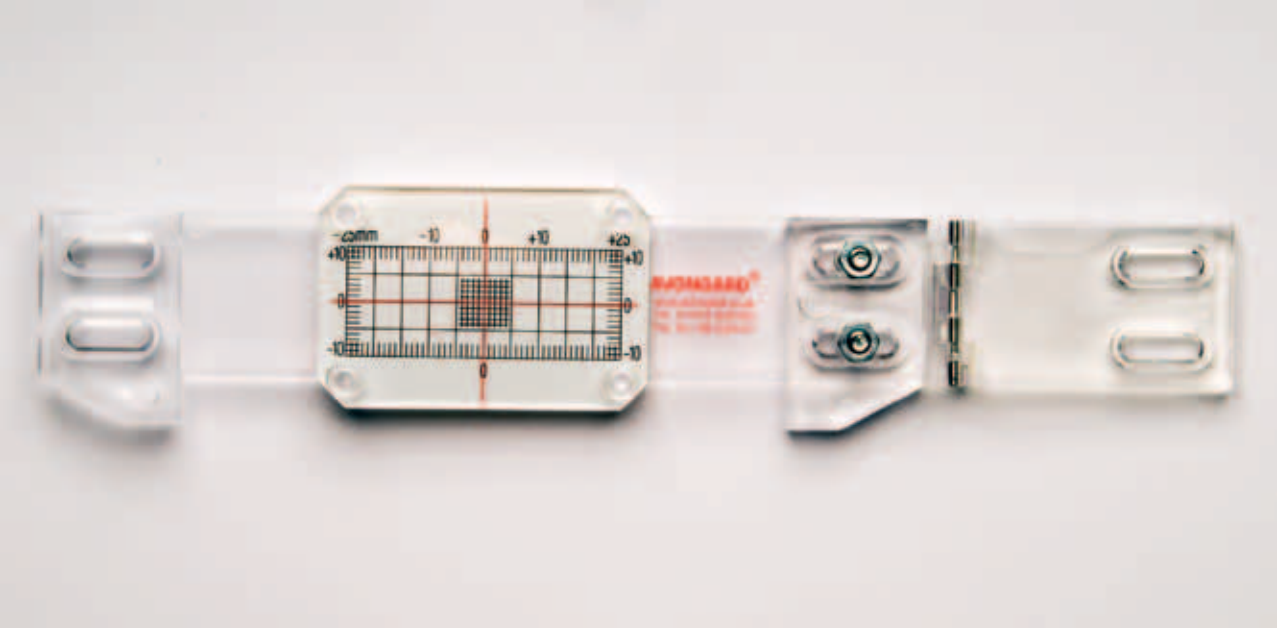
Monitoring cracks to ± 1.0 mm accuracy: As the crack opens, or if vertical movement occurs, the cursor moves relative to the calibration scale. The opening or closing of the crack is then recorded on the crack record sheet supplied.



Monitoring cracks to ± 0.1 mm accuracy: For more accurate monitoring, calipers (see page 7) can be used to measure the distances between the monitoring spigots. The distance between the spigots is then recorded on the crack record sheet supplied.



Corner Tell-Tale



The Avongard Corner Tell-Tale monitors horizontal and vertical movement across a crack in a corner.

Specifications

• The Tell-Tale is hinged enabling it to be used in internal corners of angles between 70^0 and 180^0.

• Monitors both internal and external corners.

• Avongard Tell-Tales are precision gauges that consist of two plates which overlap for a part of their length. The bottom plate is calibrated in milli-metres and the top plate is transparent and marked with a hairline cursor in the form of a cross.

• Fix using screws and adhesive (not included). (see page 10)

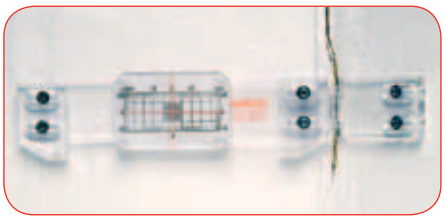
• Supplied with full instructions and Crack Record Sheet.

• Manufactured to conform to BS EN ISO 9001:2008.

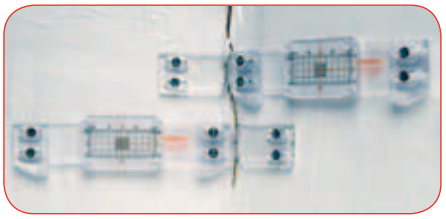
(All specifications subject to change without notice.)

Applications

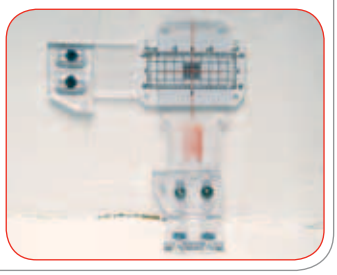
Use singly to monitor two dimensional movement.



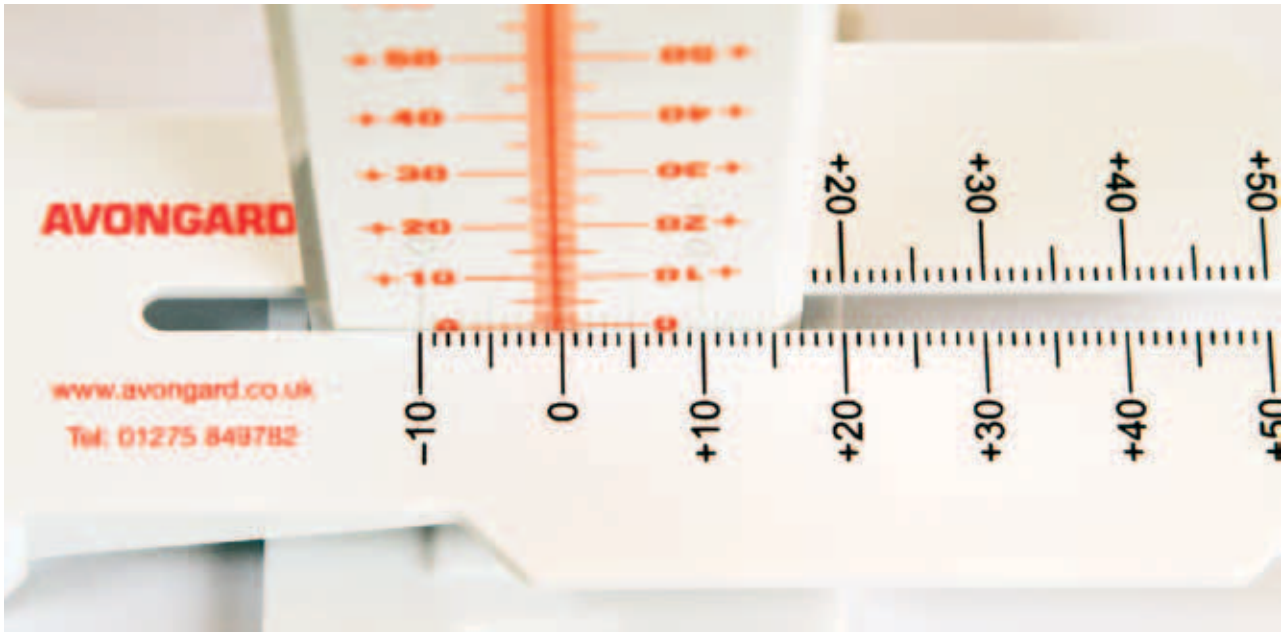
Use in pairs to monitor three dimensional movement.



Re-configure the Tell-Tale components to monitor cracks between ceilings and walls or floors and walls.



Displacement Tell-Tale



The Avongard Displacement Tell-Tale monitors horizontal and displacement movement where there is a "step" across a crack due to displacement or "out of plane" movement. The Tell-Tale consists of three components. A base plate (not calibrated) a top plate (which is calibrated) and a graduated ruler. The ruler is not left on the gauge but is used to measure the relative movement in the two plates.

Specifications

- Calibrated in millimetres.
- Displacement monitoring range of 110mm.
- Horizontal monitoring range of -10mm to +50mm.
- Fix using screws and adhesive (not included). (see page 10)
- Supplied with full instructions and Crack Record Sheet.
- Manufactured to conform to BS EN ISO 9001:2008.

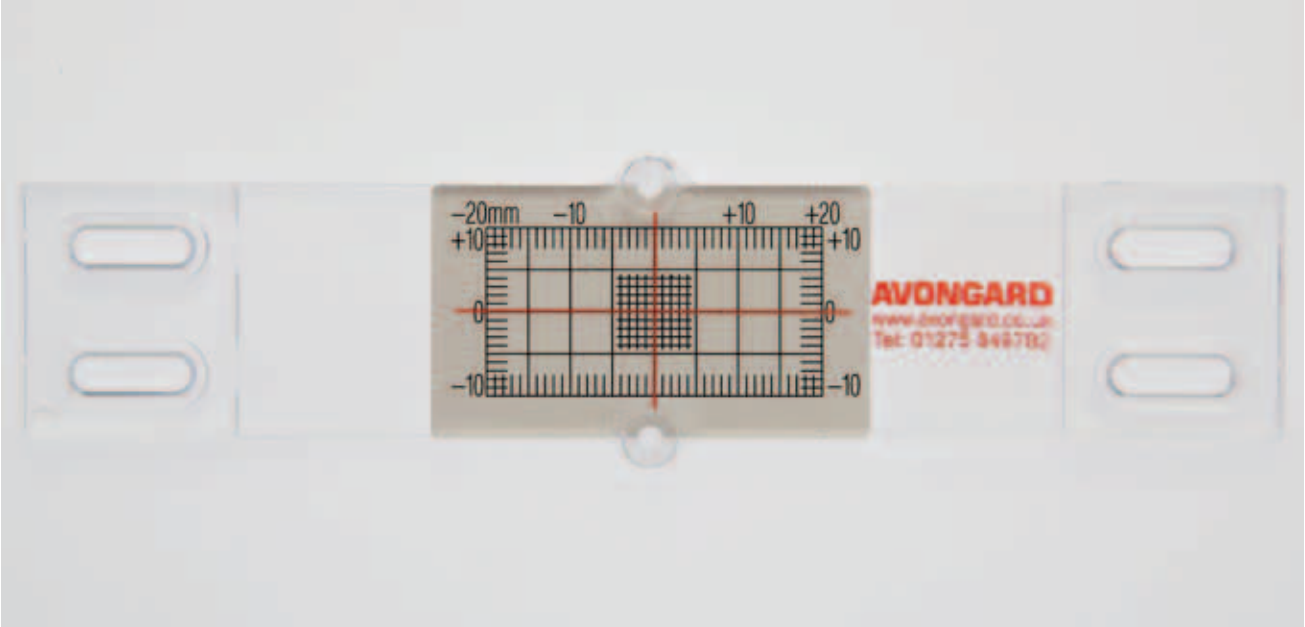
(All specifications subject to change without notice.)

Applications

The base plate and horizontal scale are fixed using screws and adhesive each side of the crack to be monitored.

By inserting the graduated ruler, the horizontal and displacement positions can be read and marked on the crack record sheet supplied. The movement of the crack can then be monitored over time.

Standard Tell-Tale



A basic (and the original) calibrated Tell-Tale that monitors horizontal and vertical movement across a crack on a flat surface. The Tell-Tale is preset at zero with two pegs. The pegs are removed after the Tell-Tale is fixed across the crack.

Specifications

• Avongard Tell-Tales are precision gauges that consist of two plates which overlap for a part of their length. The bottom plate is calibrated in milli-metres and the top plate is transparent and marked with a hairline cursor in the form of a cross.

• Fix using screws and adhesive (not included). (see page 10)

• Supplied with full instructions and Crack Record Sheet.

• Manufactured to conform to BS EN ISO 9001:2008.

(All specifications subject to change without notice.)

Applications

The Tell-Tale is fixed across the crack using screws and plugs and/or adhesive.

The two pegs are removed. As the crack opens, or closes, the cursor moves relative to the calibration scale. The opening or closing of the crack is then recorded on the crack record sheet supplied.

Crack Monitoring Kit

This set contains all the products needed to set up a Tell-Tale crack monitoring system. Supplied in a courier bag with shoulder strap, it includes a Crack Width Gauge to measure the width of cracks prior to monitoring, Plus Tell-Tales, all fixings and Crack Record Sheets. It also includes an illustrated manual with full instructions for use. The kit can be replenished by re-ordering any of the components which are also available as separate items.

Contents of Kit

The kit, supplied in a courier bag, contains:

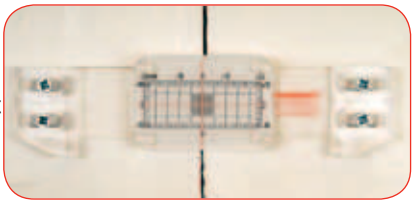
1x	Instruction Booklet
1x	Crack Width Gauge (Page 9*)
5x	Plus Tell-Tales (Page 2*)
1x	Pair Corner Tell-Tales (Page 3*)
7x	Packs of Fixing Screws (Page 10*)
1x	Pack of Plastic Padding (Chemical Metal) (Page 10*)
	Crack Record Sheets (to record changes in crack width)

(* for detailed information on this product, see this page.)

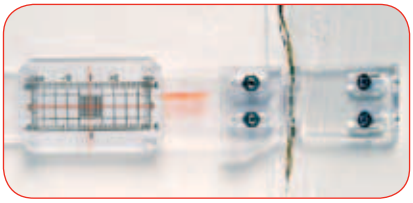
Applications

Use Crack Width Gauge to measure and record crack width before monitoring.

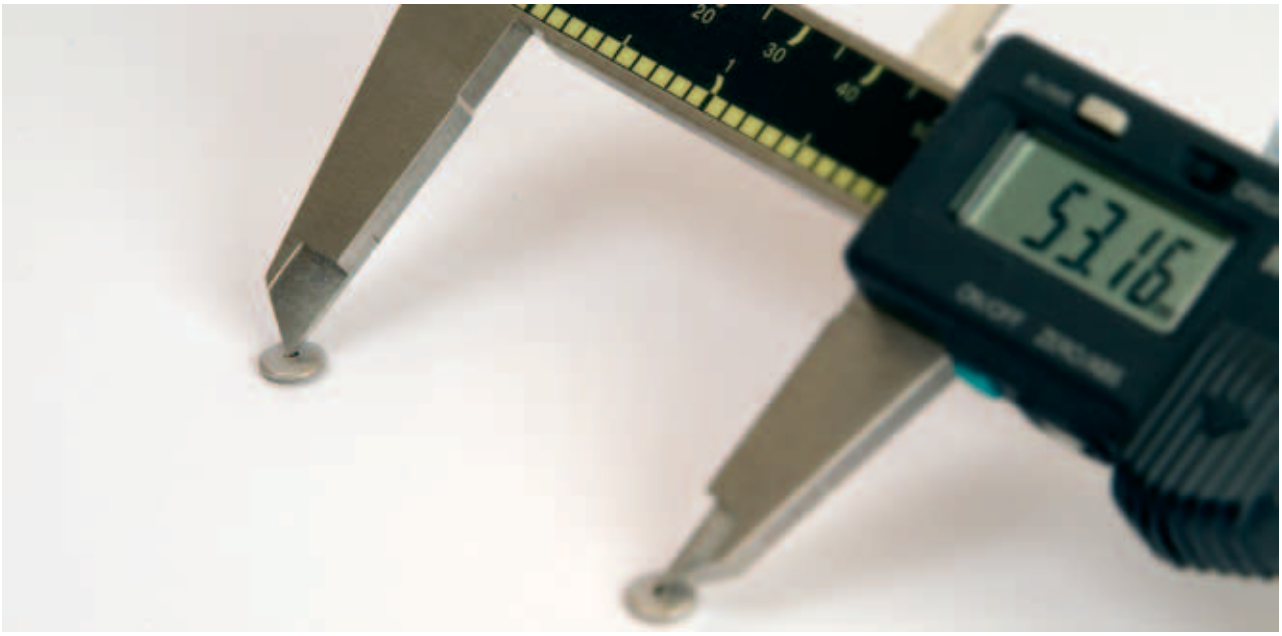
Use Plus Tell-Tales to monitor horizontal and vertical movement across cracks on flat surfaces.



Use Corner Tell-Tales to monitor cracks in corners or between floor and wall or ceiling and wall.



Calipers
Digital and Vernier

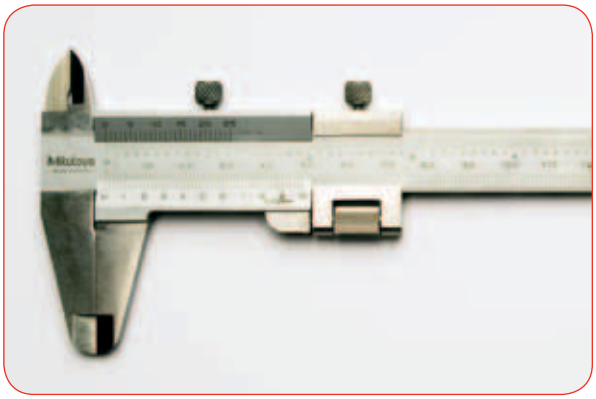


Fine resolution monitoring can be achieved using high precision calipers to measure the distances between a datum fixed either side of the crack. Stainless Steel Discs or polycarbonate Avonmarks, all supplied by Avongard, can be used as datum points either side of the crack. Cracks in corners can be monitored using Avongard Corner Discs.

Digital Caliper

- Calibrated to 0.01mm and 0.0005ins
- Supplied in durable plastic case
- Manufactured by Mitutoyo of Japan

Vernier Caliper



- Calibrated to 0.02mm and 0.001ins
- Supplied in a plastic wallet
- Manufactured by Mitutoyo of Japan

Caliper Kits

This set contains all that is needed to set up a crack monitoring system using precision calipers. Supplied in a courier bag with shoulder strap, it includes a Crack Width Gauge to measure the width of cracks prior to monitoring, a Digital or Vernier caliper, a pack of monitoring datum and Crack Record Sheets. Also included is an illustrated manual with full instructions and describes best practice methods for using the calipers. All the components can be re-ordered separately in order to replenish the kit.

Contents of Kit

The kit, supplied in a courier bag, contains:

1x Digital or Vernier caliper

1x Crack Width Gauge for measuring the width of cracks prior to monitoring. (Page 9*)

1x Pair of Corner Discs for monitoring cracks in corners. (Page 10*)

1x Pack of 100 Avonmarks. (Page 10*)

1x Pack of 100 Stainless Steel Discs. (Page 10*)

1x Pack of Plastic Padding (Chemical Metal) (Page 10*)

Full Instructions and Crack Record Sheets

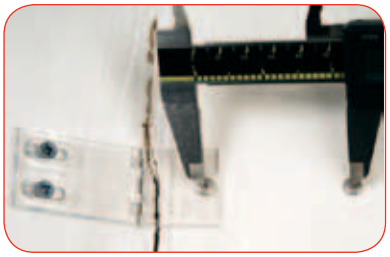
(* for detailed information on this product, see this page.)

Monitoring

The distance between the monitoring datum is measured and recorded on the crack record sheet (supplied).

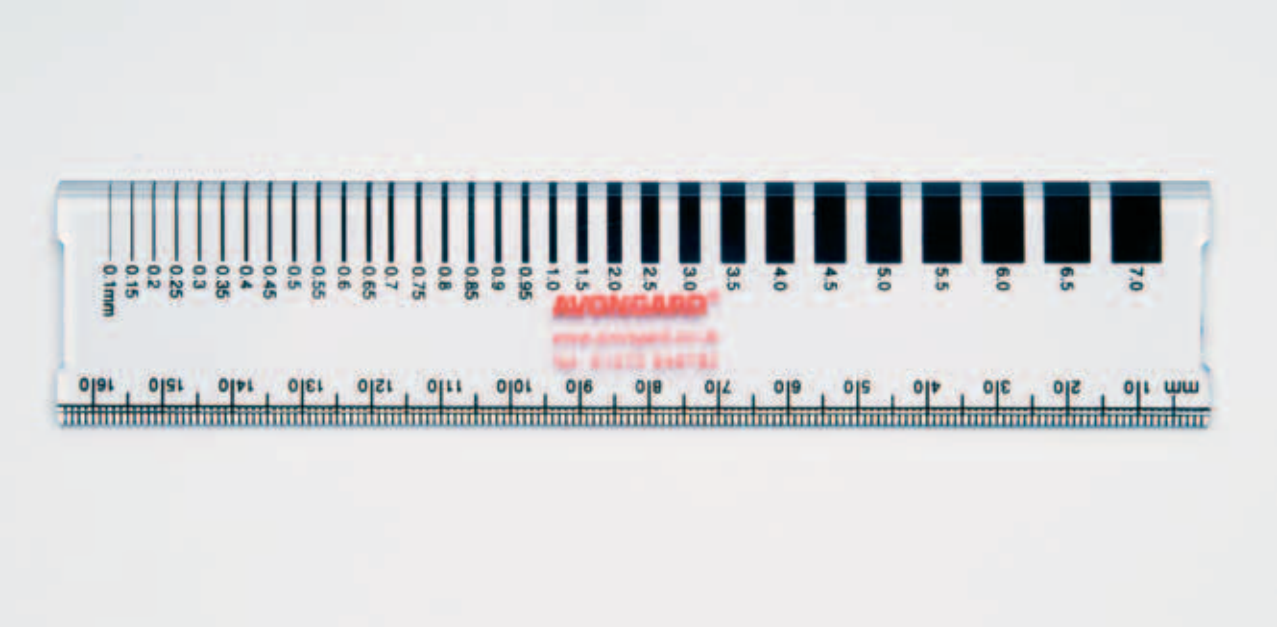
The rate and trend of movement becomes apparent as subsequent readings are taken.

Cracks may be monitored in corners using Avongard Corner Discs.



Use singly to monitor two dimensional movement or in pairs to monitor three dimensional movement.

Crack Width Gauge



Prior to monitoring the crack, the widths and location of the cracks are measured. The Avongard Crack Width Gauge is specifically designed for this purpose.

Specifications

• The Crack Width Gauge is manufactured in polycarbonate. The co-efficient of linear thermal expansion is 7.0×10^{-5} cm/cm/^{o}C for ambient temperatures between -30^{o}C to +30^{o}C.

• Suitable for internal and external use.

• Scale calibrated from end of Crack Width Gauge allows measuring of cracks in corners.

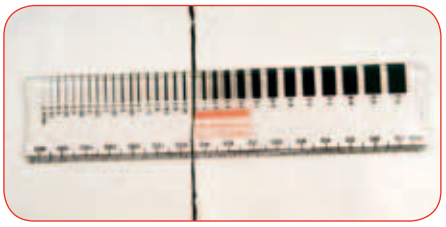
• Supplied in a protective case.

• Manufactured to conform to BS EN ISO 9001:2008.

(All specifications subject to change without notice.)

In Use

Selecting a location where the edges of the crack are reasonably straight and parallel, hold the Crack Width Gauge in contact with the crack (at right angles to the crack).



Align the Crack Width Gauge where the calibration and the crack are the same width. Record the width, length and location of the crack.

The scale at the bottom of the gauge may be used to measure crack widths greater than 7mm and cracks in corners or awkward locations.

Accessories
& Fixings

Screws and Plugs

For fixing all Avongard Tell-Tale products and Avongard Corner Discs. This pack of four zinc plated screws and four plastic plugs is suitable for fixing one Tell-Tale or a pair of Corner Discs. For a Corner Tell-Tale, two packs are required. To increase vandal resistance, use in combination with Plastic Padding®. (Pack of 4)

Plastic Padding®

Plastic Padding® (Chemical Metal) can be used to fix all Avongard Tell-Tale Products as well as all Caliper datum. It can also be used to increase the vandal resistance of all screw fixings by coating the screw before insertion. (Supplied singly)

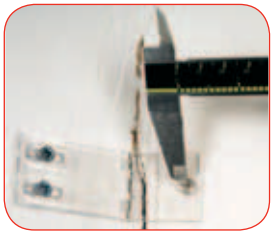
Avonmarks

The Avonmarks can be fixed with Plastic Padding® about 80 to 100mm either side of the crack to be monitored. (Pack of 100)

Stainless Steel Discs

The Stainless Steel Discs can be fixed with Plastic Padding® about 80 to 100mm either side of the crack to be monitored. (Pack of 100)

Corner Discs



For monitoring with calipers on corners. Supplied with two Stainless Steel Discs. Fix with screws and/or Plastic Padding®. (Pack of 2)

How To Order

How to Order

e-mail: Telling us that a BACS payment has been made into our bank. Please ensure that your telephone number, e-mail address, postal address and country are clear and e-mail to: info@avongard.co.uk

Fax or Phone: Together with a credit card payment.

Post: Post your order with a cheque made payable to Avongard Ltd.

Carriage

Please add 10% of total cost for postage and packing.

Goods are sent by post or courier, depending on their weight and size.

How to Pay

Credit Card: We accept all Visa Cards. We require the following details to process payment:

- The name, address and postcode to which the card is registered.
- The card number.
- The issue and expiry date.
- CSE number on the reverse of the card.

Cheque: Post a cheque, made payable to Avongard Ltd, with your order.

BACS: Arrange a BACS payment with your bank. Our bank details are as follows:

Account Number:	00988757
Sort Code:	30 18 88
Address:	Lloyds Bank, High Street, Portishead, Bristol, BS20 6BJ

IBAN: GB23 LOYD 3018 8800 9887 57
BIC: LOYD GB21445

Crack Record Sheets

Crack Record Sheets are included in the pack. If you require additional sheets, these can be downloaded from our website www.avongard.co.uk.

Avongard Ltd

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VAT Registered No: 302 9872 56
Patented: GB2251311

AVONGARD®

SPECIALISTS IN STRUCTURAL MONITORING EQUIPMENT

Please feel free to print or photocopy this price list in order to submit orders by fax or post. Alternatively, it is available in an individual PDF form at *www.avongard.co.uk*.

Price List & Order Form - January 2012

Tell-Tales		Quantity	Total Price
Crack Monitoring Kit	£107.65	x _____	£ _____
Plus Tell-Tale	£10.85	x _____	£ _____
Corner Tell-Tale (single)	£12.75	x _____	£ _____
Displacement Tell-Tale	£17.95	x _____	£ _____
Standard Tell-Tale	£8.35	x _____	£ _____
Caliper Kits			
Digital Caliper Kit	£295.50	x _____	£ _____
Vernier Caliper Kit	£265.00	x _____	£ _____
Accessories & Fixings			
Crack Width Gauge	£7.85	x _____	£ _____
Avonmarks (pack of 100)	£27.75	x _____	£ _____
Stainless Steel Discs (pack of 100)	£41.50	x _____	£ _____
Corner Discs (per pair - to be used with calipers)	£15.65	x _____	£ _____
Fixing Screws (one pack per Tell-Tale)	£1.58	x _____	£ _____
Plastic Padding (Chemical Metal)	£8.90	x _____	£ _____
Avongard Courier Bag	£13.35	x _____	£ _____

Credit Card Payment

Card Number _____

Valid From: _____ To: _____

CSE Number: _____

Subtotal	£
Delivery 10%	£
Total Price	£

VAT Number: _____ (EU Countries)

Address

Name _____

Company: _____

Tel. Number: _____

e-mail: _____

Address: _____

Postcode: _____

Country: _____

Avongard Ltd

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VAT Registered No: 302 9872 56

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