



Installation Guide and Crack Progress Sheet

CRACKMON® 5020AV Caliper Crack Monitor

Structural Crack-Width Measurements with Digital-Caliper Precision (Patent Pending)



Please follow all instructions to ensure proper installation and avoid personal injury.

Structural Epoxy (Method 1)

1. If surface is damp, use Method 2. Clean and remove loose debris from crack using stiff bristle or wire brush.
2. Mix approved Buildera STRUPOXY™ adhesive or Aboweld 8101-5 epoxy following directions on package.
3. Apply 1-2 mm-thick layer of epoxy to backside of both CRACKMON mounting tabs near holes (2 cm x 3 cm area). Rough or uneven mounting surfaces may require a thicker application.
4. Press CRACKMON firmly into place across crack at 1-m (3-ft) typical unit-to-unit spacing. Depending on epoxy thickness, slightly pull (but do not remove) four (4) plastic alignment pins to allow flush mounting.
5. Center red cross-hair over crack. Level and adjust to ensure accurate grid alignment prior to initial epoxy setup. Hold in place for approximately five (5) minutes until initial bond sets.
6. Secure CRACKMON in place with duct tape for 24 hrs until epoxy fully cures. **After initial cure, carefully remove four (4) plastic alignment pins to allow free motion between CRACKMON plates.**
7. Note X-Y start position on Crack Progress Sheet or Buildera TRACARD® 3D. Inspect movement weekly to monthly. Document with phone/camera and CRACKMON® 224R Crack-Width Comparator (ACI compliant).

Anchor & Fastener (Method 2)

1. Clean and remove loose debris from crack using stiff bristle or wire brush.
2. Temporarily hold CRACKMON 5020AV over crack. Mark four (4) drilling holes (two per side) using black Sharpie® permanent marker.
3. Drill four 1-1/2" (4 cm) deep holes using a cordless hammer drill and 3/16" (ø5 mm) concrete bit. Blow out debris from hole. **Use eye protection!**
4. Insert one 3/16" (ø5 mm) A5 Toggler® Alligator® anchor into each hole. Tap flush with a hammer. *For best results, do not use any other anchor.*
5. Fasten CRACKMON® with four #6 x 1-1/4" stainless-steel flat-head sheet-metal screws. *Over-torquing screws may inadvertently damage the gauge or shear off the screw head.*
6. Tighten last turns by hand. **Remove four (4) alignment pins to allow free motion between CRACKMON plates.**
7. Note X-Y start position on Crack Progress Sheet or Buildera TRACARD® 3D. Inspect movement weekly to monthly. Document with phone/camera and CRACKMON® 224R Crack-Width Comparator (ACI compliant).
8. For best security and vandal resistance, mount CRACKMON with tamper-resistant screws and epoxy. Epoxy prevents device loosening or slippage.



Ordering Information

Model (Qty)	UPC
CRACKMON® 5020AV (1)	816291010389
STRUPOXY™ Adhesive (1 Oz)	816291010099

Related Products

Model (Qty)	UPC
CRACKMON® 4020A (1)	816291010259
CRACKMON® 4020A (3-Kit)	816291010006
TRACARD® 3D (12)	816291010368
CRACKMON® 224R (1)	816291010112
CRACKMON® 224R (50-Bulk)	816291010167
CRACKPOINT™ 60ti (10)	816291010303
CRACKPOINT™ 90ti (10)	816291010310
CRACKPOINT™ TR50ti-Kit	816291010334

Engineering Specifications

Parameter	Specification
Dimensions	160 x 43 x 6 mm
Crack-Width Range	±25 mm (X), ±10 mm (Y)
Discrimination	±0.5 mm (visual)
Accuracy	±0.02 mm (with calipers)
Polar Magnitude	0-25 mm (5-mm steps)
Material	Polycarbonate (Molded)
COE	68 µm/m-°C, -40 to +80°C
Mounting Method	Epoxy and/or fasteners
Fastener Size	M3.5 (#6) SMS Flat Head
Anchor	Toggler® A5 (3/16" drill)
Country of Origin	England (UK) - 5020AV



CRACKMON® 5020AV CRACK MONITOR PROGRESS SHEET

CLIENT / PROJECT NAME: _____

STREET ADDRESS: _____

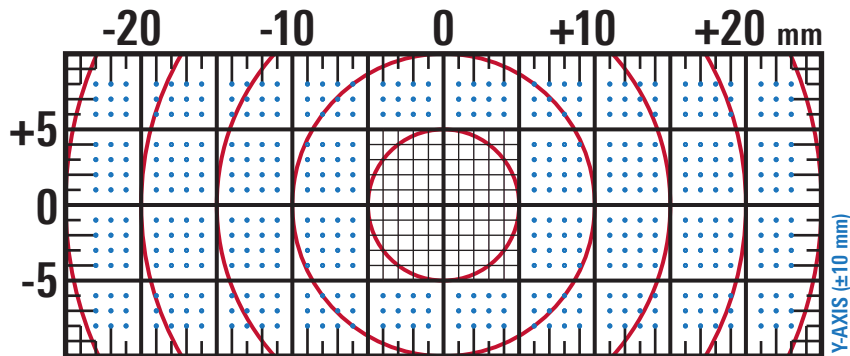
CITY: _____ STATE / PROVINCE: _____ COUNTRY: _____

COMPANY: _____ ENGINEER / LICENSE NO: _____

COMMENTS: _____

Scale: 200% | www.buildera.com/charts

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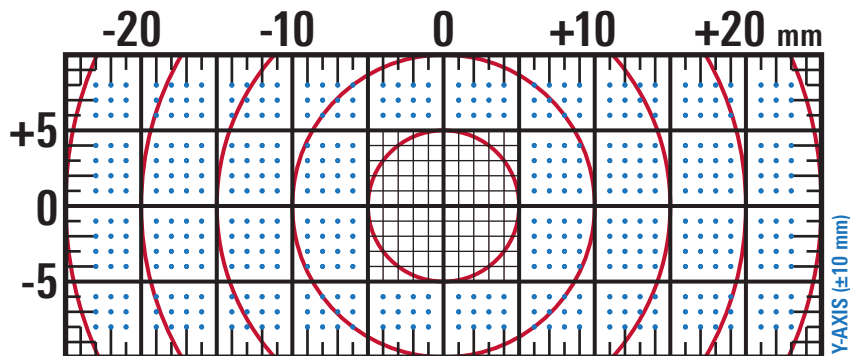


ID: _____ LOCATION: _____ SN: _____ INSTALL DATE: _____

DATE	X-AXIS	Y-AXIS	MAG	PIN DIST	$^\circ\text{C} / ^\circ\text{F}$	SOIL



NOTES: _____

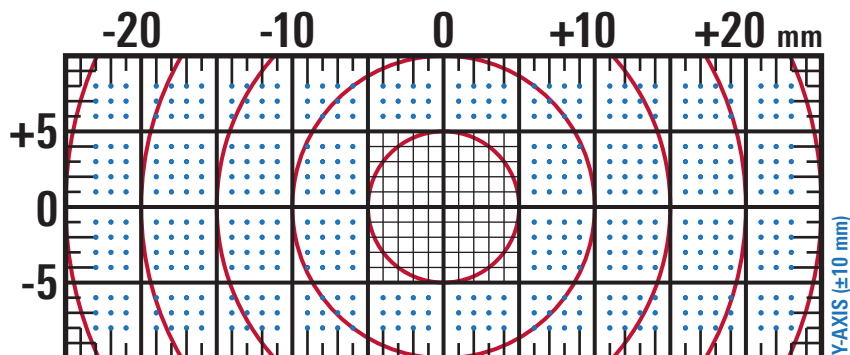


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