Model 4015

The HMA Geotechnical Wire Extensometer monitors the displacement between ground level and fixed anchor locations within a grouted borehole. It is capable of withstanding larger shear displacements than the Model 4000 Rod Extensometer.

APPLICATIONS

Used in tunnelling, open cut mines, dam construction, underground mines, large excavations and construction control.

FEATURES

- Low cost
- Robust
- Easy to install
- Complete instruments are supplied ready for installation
- One to six anchors to suit varying ground conditions
- Compact design for ease of transport
- Transverse shear accommodation
- The head frame can be used on subsequent boreholes to reduce ongoing costs
- A wide selection of displacement ranges are available from 150 mm to 4000 mm
- Three options for obtaining data including digital counter, Hand-Held Readout and Datalogger

OPERATING PRINCIPLE

The Wire Extensometer consists of a maximum of six stainless steel wire ropes. One end of each wire is connected to a zinc-plated steel anchor, the other is terminated onto a crimped connector. The downhole assembly is sheathed in a poly tube between the anchors. The crimped connectors are in turn connected to the head frame, which contains a maximum of six spring-loaded pulleys. The potentiometer can be read by a Hand-Held Readout or connected directly to a Datalogger.
SPECIFICATIONS

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<th>Specification</th>
<th>Details</th>
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<tr>
<td>Sensor Ranges</td>
<td>0-150 mm, 0-1 m, 0-2 m, 0-3 m</td>
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<tr>
<td>Resolution</td>
<td>0.1 mm</td>
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<tr>
<td>Maximum Number of Sensors</td>
<td>6</td>
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<tr>
<td>Measurement Options</td>
<td>Digital Counter, Hand-Held Readout, Datalogger</td>
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<tr>
<td>Nominal Borehole Diameter</td>
<td>75 mm</td>
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<tr>
<td>Maximum Borehole Length</td>
<td>150 m</td>
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<tr>
<td>Anchor Length</td>
<td>50 mm</td>
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<td>Anchor Diameter</td>
<td>40 mm</td>
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<tr>
<td>Dimensions</td>
<td>300 mm L x 300 mm W x 150 mm H</td>
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</table>

ANCILLARY EQUIPMENT

- Hand-Held Readout (Model 9600-2)
- Datalogger

INSTALLATION

The downhole component is supplied fully assembled in a 1 m diameter coil. At the installation site, the assembly is uncoiled, fitted with a grout tube and placed into the borehole. When the assembly is at the correct depth, grout is pumped into the grout tube until the borehole is full. The head frame is then installed above the assembly. Once the grout has cured, the initial reference readings can be taken.

ORDERING INFORMATION

When ordering, please specify the number of anchors, the anchor locations, the sensor displacement range, and any measurement options. For custom requirements, please contact the HMA Geotechnical Head Office.

Note: HMA Geotechnical is continually improving its products and processes, information contained within this brochure is subject to change without notice.