

## Multi-Point Borehole Extensometers

# **Description**

Stability and movement behavior of soil and rock masses can be determined by the use of borehole extensometers. A typical rod extensometer consists of a reference head, usually installed at the collar of a drill hole, and one or more in-hole anchors, each of which is fixed in place at a known depth in the borehole. As the soil or rock deforms, the distances between adjacent in-hole anchors change, as do the distances between the individual in-hole anchors and the reference head. This allows an accurate determination of distribution, magnitude, rate and acceleration of deformation in the rock or soil mass intersected by the drill hole.

The number of anchors and anchor depths should be selected based on site geology, geometry of structures in the area, and other site-specific details. The use of two, or more, anchors at various depths allows the engineer to distinguish between potentially dangerous deep seated movements and more trivial surface spalling.

#### **Specifications**

Sensor Range 50, 100, 150, 200 mm

Accuracy +/- 0.25% FSR
Resolution 0.025% FSR
Linearity 0.5% FSR

Operating Temperature -20°C to 80°C Thermal Zero Shift -20.05% FSR/°C

Number of Anchors 1 to 6

Borehole Diameter Recommendation Minimum 4" (101 mm)

Contact RST Instruments for available custom options.

## **FLEXIBLE ROD**

ORDERING METHOD: 1) Select Above Grade or Below Grade Installation 2) Select Manual or Combination Head 3) Select type and range of sensors 4) Select type and length of rods 5) Select type of anchors

## **RIGID ROD SPECIFICATIONS**

Heads ITFM

ITEM Part #
Combination Heads MPBX

Mechanical Heads EXMPBXMA1 (1 point) EXMPBXMA2 (2 points)
EXMPBXMA3 (3 points) EXMPBXMA4 (4 points)

EXMPBXMA5 (5 points) EXMPBXMA6 (6 points)

Rods



1/4 in. Standard, Stainless Steel Individual PVCSheath Anchors EXRO2502 (0.25 m)EXRO2505 (0.5 m)EXRO2510 (1.0 m)EXRO2515 (1.5 m)EXRO2520 (2.0 m)

EXRO2530 (3.0 m)

EXRO2550 (5 ft.) EXRO2600 (10 ft.)

EXRO2535 (3 ft.)

Groutable

EXMP11000M (metric) EXMP11000 (imperial)

Hydraulic Borros Groutable with Spring Legs Bladder Anchor EXHY13000 (double acting)
EXMP12000M (metric) EXMP12000 (imperial)
EXIL14000 (customer specifies borehole diameter)

**SPECIFICATIONS**