

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.

FLEXIBLE ROD SPECIFICATIONS

ITEM

Flexible Rod Extensometer (includes head, sensors, rods, sheaths, and anchors)

SPECIFICATION

EXRI0001 (1 point) EXRI0002 (2 points)
EXRI0003 (3 points) EXRI0004 (4 points)
EXRI0005 (5 points) EXRI0006 (6 points)

RIGID ROD SPECIFICATIONS

Heads

ITEM

Electrical Head and Sensors

SPECIFICATION

EXMPBX001 (1 point) EXMPBX002 (2 points)
EXMPBX003 (3 points) EXMPBX004 (4 points)
EXMPBX005 (5 points) EXMPBX006 (6 points)
EXMPBXMA1 (1 point) EXMPBXMA2 (2 points)
EXMPBXMA3 (3 points) EXMPBXMA4 (4 points)
EXMPBXMA5 (5 points)

Mechanical Heads

Rods

ITEM

1/4 in. Standard, Stainless Steel Individual PVC Sheath

SPECIFICATION

EXRO2502 (0.25 m) EXRO2505 (0.5 m)
EXRO2510 (1.0 m) EXRO2515 (1.5 m)
EXRO2520 (2.0 m) EXRO2530 (3.0 m)
EXRO2535 (3 ft.) EXRO2550 (5 ft.) EXRO2600 (10 ft.)

Anchors

Groutable	EXMP11000M (metric) EXMP11000 (imperial)
Hydraulic Borros	EXHY12000 (single acting) EXHY13000 (double acting)
Hydraulic Expanding Tube/Bladder	EXHY14000 (customer specifies borehole diameter)
Groutable with Spring Legs	EXMP12000M (metric) EXMP12000 (imperial)
Snap Ring	EXSR11000 (customer specifies borehole diameter)
SPECIFICATIONS	