

## VW Soil Extensometer GEO-XS

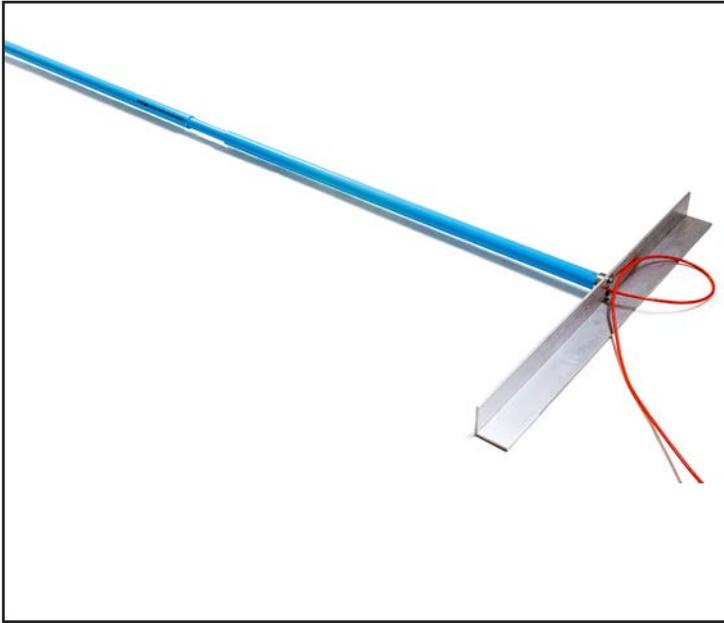
The Geosense® GEO-XS VW Soil Extensometer monitors lateral and longitudinal deformation of soil and different types of embankments and embankment dams



# VW Soil Extensometer GEO-XS



## Overview



The Geosense® GEO-XS VW Soil Extensometer monitors lateral and longitudinal deformation of soil and different types of embankments and embankment dams.

It comprises a displacement transducer connected to an extension rod and fixed between a pair of anchor beams.

The assembly is housed in and protected by an external telescopic sleeve. To form a 'Chain Extensometer', Soil Extensometers are linked together, in series, using the anchor beams as connectors.

The internal sensing element is housed within an outer PVC sleeve which is sealed by O-rings at each end. The sleeve, with telescopic sections with O-ring seals, is extended along the whole length of the rod to the next anchor.

As structural movement occurs, the rod is moved within the housing. The shaft movement changes the tension in the sensor spring which, in turn, changes the tension in the Vibrating Wire.

Different combinations of anchor spacing (Gauge Length) and sensor range can be used to provide an optimum sensing accuracy and range. i.e. for maximum strain resolution, a shorter transducer length will provide the best results. For maximum deformation, use a longer transducer or a shorter gauge length.

### APPLICATIONS

The measurement of soil and rock movements including:

Horizontal and vertical displacements within embankment fill material

Displacements of retaining walls and abutments

Foundation spreading

Control of natural and cut slopes, quarry and mining excavations

Rock Formations

Foundations

### FEATURES

Accurate, robust with good long-term stability

Heavy duty, suitable for burial in rock-fill

Easy installation

Suitable for remote reading

Over-voltage surge arrestor fitted to protect against electrical damage

Wide measuring range

IP68 (18 bar) rated



# VW Soil Extensometer GEO-XS

## Specifications

### DISPLACEMENT GAUGE

|                    |  |
|--------------------|--|
| Range              | 100, 150, 200, 300, 500mm  |
| Resolution         | 0.025% FS  |
| Accuracy           | ±0.1%  |
| Nonlinearity       | 0.5% FS  |
| Frequency range    | 1650 - 2700Hz  |
| Nominal zero value | 1850Hz   |
| Body material      | Stainless steel  |
| Inner rod          | Stainless steel  |
| O-ring             | Viton  |
| Waterproof casing  | 18 bar   |
| Cable Type         | 900 - VW Sensor with Foil Screen & Drain Wire; Type 710 - Heavy Duty |

### EXTENSOMETER

#### GAUGE HEAD

|          |                 |
|----------|-----------------|
| Material | Stainless steel |
| Diameter | 50mm            |

#### ANCHOR

|            |                            |
|------------|----------------------------|
| Material   | Aluminium, Stainless steel |
| Dimensions | L 100 x W 57 x H 75mm      |

#### OUTER TELESCOPIC SLEEVE

|                  |                            |
|------------------|----------------------------|
| Material         | PVC                        |
| Outside Diameter | 42mm                       |
| Inside Diameter  | 35mm                       |
| Length           | 1200mm                     |
| Anchor Material  | Aluminium, Stainless steel |

#### INNER SLEEVE

|                  |         |
|------------------|---------|
| Material         | PVC     |
| Outside Diameter | 33mm    |
| Inside Diameter  | 25mm    |
| Length           | 1 metre |

#### INNER ROD

|                  |                 |
|------------------|-----------------|
| Material         | Stainless Steel |
| Outside Diameter | 6.4mm (1/4")    |
| Spacers          | Acetyl          |
| Length           | 1 metre         |



[WWW.HOSKIN.CA](http://WWW.HOSKIN.CA)

- ENVIRONMENTAL
- INSTRUMENTATION
- MATERIALS TESTING
- INTEGRATED SYSTEMS
- RENTALS
- SERVICE

Vancouver | Oakville | Montréal | Edmonton