

## VW soil strainmeter



### Description

Model 1360 **VW soil strainmeter** is designed to measure the magnitude and rate in underground movement.

The soil strainmeter consists of a VW displacement gage, which has 150mm range, to stainless steel rod inside stainless steel housing, and anchors, which is composed 5 meters of 1 kit.

The VW soil strainmeter converts lateral movement to frequency signal.

The soil strainmeter are installed in series along the axis of anticipated deformation. The cross anchors made by L shape steel is installed at intervals of 5 meters.

The flange in housing is connected via cross anchor-to-anchor rod, which is installed hard PVC pipe so that displacement is transmitted fully.

Displacement produced by movement of the surrounding soil changes frequency signal from VW displacement sensor corresponding to movement of the anchor rod.

This signal is transmitted to the VW readout. The VW readout unit processes the signal and displays a reading.

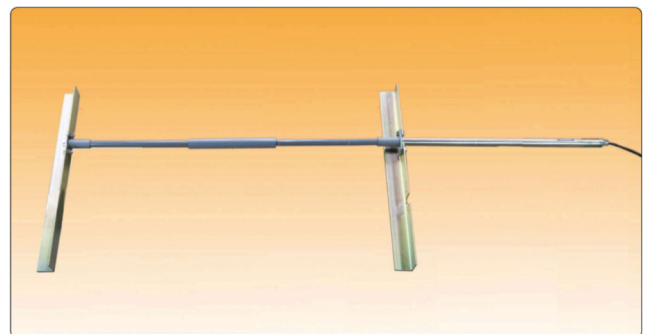
The strainmeter, which a VW displacement sensor is inside the housing, is equipped a temperature device for compensating for temperature variations.

### Applications

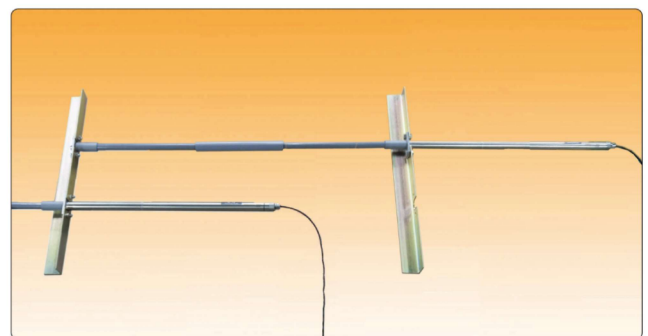
- Measurement of lateral movements in fills dams.
- Measurement of horizontal displacements in fills and embankments.
- Measurement of crack in structures produced by tensile.

### Features

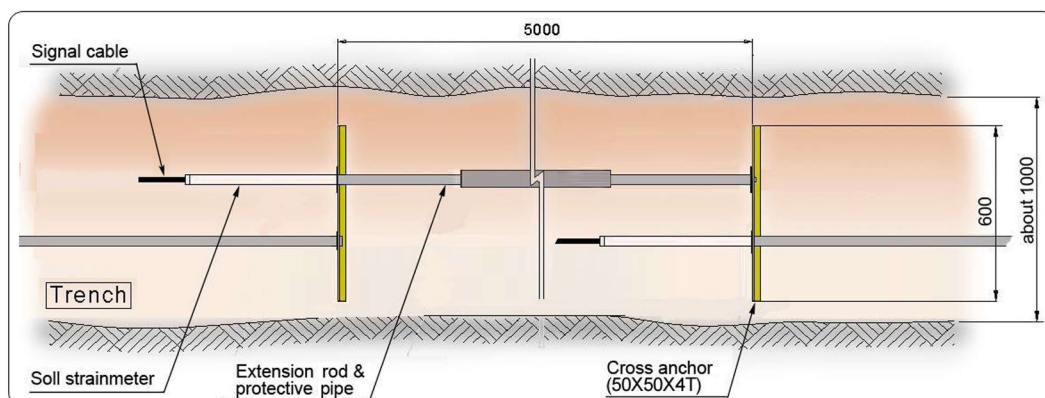
- High precision and reliability
- Stability and reliability in extreme environment
- Not affected by cable length and resistance change, reproducibility are very excellence
- Possible to automatic measurement



[Installation of singular sensor]



[Installation of plural sensors]



[Installation of VW Soil Strainmeter]

## VW soil strainmeter

### Specification

Model	1360
Sensor element	Vibrating wire sensor
Range	150mm, 300mm
Resolution	0.025% FSR (0.03mm)
Accuracy	±0.1% FSR
Nonlinearity	±0.5% FSR
Operating temperature	-40~80°C
Built in temperature device	Thermistor (3k $\Omega$ )
Temperature device range	-40~105°C
Temperature device accuracy	±0.5°C
Water proof	70m H <sub>2</sub> O
Materials	Stainless steel, PVC pipe
Weight	① Sensor 1.5kg ② Cross anchor 4.0kg ③ Extension rod 2.0kg / 5m
Signal cable	Ø7mm, 0.37mm <sup>2</sup> × 4C Aramid fiber reinforced PU sheath cable
Accessories	① Cross anchor ② Protect extension pipe kit ③ Extension rod

### The readout

It is connected to the system such as the VW readout units, data loggers to be data logging and data acquisition system to monitor readings. It is compatible with other company's readout unit.

- ACE-800 (VW readout)
- ACE-1000 (VW data recorder)
- ACE-1100 series (VW mini logger)
- ADL-16V (VW data logger)
- ADL-200A (Smart logger)
- VL Module (Smart LoRa system)

### Ordering information

- Keeping VW readout unit
- Application field
- Cable length

### Ancillary equipments

- Universal terminal box (model 7012/7024)
- Polyethylene sheath cable for heavy duty