FILL EXTENSOMETER

Model ERI

APPLICATIONS

The fill extensometer Model ERI is used to measure longitudinal displacement between two points in fill. Typical applications include:

- Monitoring the crest of earthfill dams to locate tension cracks
- Measuring lateral strains in earth structures
- Measuring heave in the base of deep excavations

DESCRIPTION

The fill extensometer Model ERI consists of a telescopic outer PVC pipe fitted with two end flanges and an inner stainless steel rod. One end of the rod is attached to a flange, while the other end of the rod is attached to a displacement sensor, which is attached to the other flange. The displacement sensor is either a vibrating wire sensor, or linear potentiometer. A signal cable attached to the sensor links the sensor to a readout at the surface.

As displacement occurs, the telescoping outer pipe moves with the soil, causing the rod to compress or extend the displacement sensor.

These fill extensometers are generally installed horizontally in trenches, but sometimes vertically in boreholes.

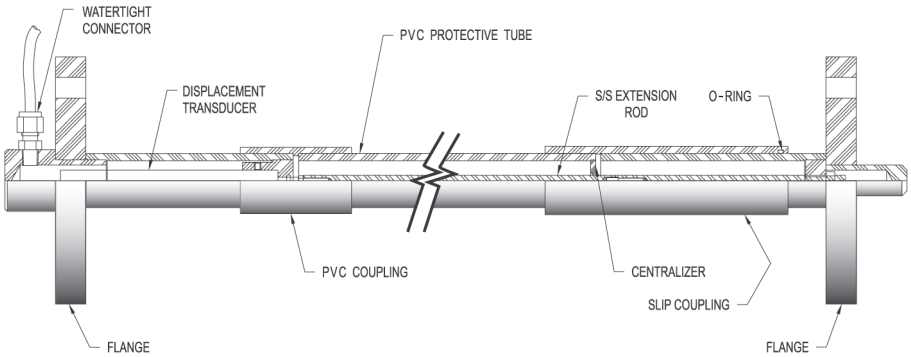
The standard lengths of the fill extensometer Model ERI are between 3 meters and 30 meters. Extensometers can be assembled in series using threaded rods inserted in the holes on each end flange.

FEATURES

- **High resolution**
- **Wide measuring range**
- **Rugged: Materials resistant to shocks and vibrations caused by explosions and earthquakes**
- **Easy installation and maintenance**
- **Continuous and accurate measurement of displacements and axial deformations over long base lengths**
- **Frequency signal easy to process and transmit over long distances with vibrating wire sensor**

SPECIFICATIONS

Range	50, 100, 150 and 200 mm
Sensor type	Vibrating wire or linear potentiometer
Accuracy	±0.25% F.S. (vibrating wire) ±0.5% F.S (potentiometer)
Resolution	0.02% F.S. (MB-6T[L]) 0.01 mm (PALMETO P5)
Cable	IRC-41A, IRC-390
Thermistor (optional)	3kΩ
Operating temperature	–20 to +80°C
Base length	3 to 30 m
Outside diameter	
Stainless steel extension rod	6.35 mm
End flange	150 mm
PVC telescoping coupling	42 mm
PVC sensor housing	48 mm (vibrating wire) 33 mm (potentiometer)
PVC casing	33 mm
Readout unit	MB-6T(L) (vibrating wire) PALMETO P5 (potentiometer)
Data acquisition system	SENSLOG



Model ERI

ORDERING INFORMATION

Please specify:

- Model
- Base length
- Sensor type
- Electrical cable length
- Readout instruments

Products and specifications are subject to change without notice.
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