



# ENCARDIO RITE



## SOIL EXTENSOMETER

MODEL EDS-92

### OPERATING PRINCIPLE

The Encardio-rite model EDS-92 extensometer is used for monitoring displacement between two surfaces that may shift with respect to each other with time. The soil extensometer finds major application in the measurement of lateral strains and settlement in or beneath earth and rock fill embankments; and in dams. It is used in measurement of foundation movements and controlling of natural and cut slopes. The displacement of retaining walls, bridge piers and abutments can also be monitored by the soil extensometer. It also finds application in the measurement of displacement across construction joints in concrete, and across joints and faults in rock. The extensometers are usually installed in approximately 500 mm wide x 600 mm deep trenches.

### OPERATION

The soil extensometer uses a vibrating wire sensor for monitoring displacement. The system consists of a sensor assembly with flanges that is mounted with adaptors, adjustment unit, sockets and extension rods between two anchors to monitor the horizontal movement of surrounding soil. The system is enclosed in telescopic



### FEATURES

- ◆ Reliable, accurate and simple to read.
- ◆ Suitable for remote reading of displacement.
- ◆ Probe is robust, care being given to protect all components and sub-assemblies from ingress of water and corrosion.
- ◆ Range upto 100 mm of displacement.
- ◆ Easy to install.
- ◆ Reasonably priced

### APPLICATIONS

- ◆ Horizontal movement in foundations and embankments.
- ◆ Movement of natural and cut slopes, quarry and mining excavations.
- ◆ Displacement of retaining walls, piers and abutments.
- ◆ Displacement across construction joints in concrete and fault in rocks.

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PVC tubing with proper 'O' ring seals to eliminate friction between the rods and surrounding soil and to prevent any ingress of water.

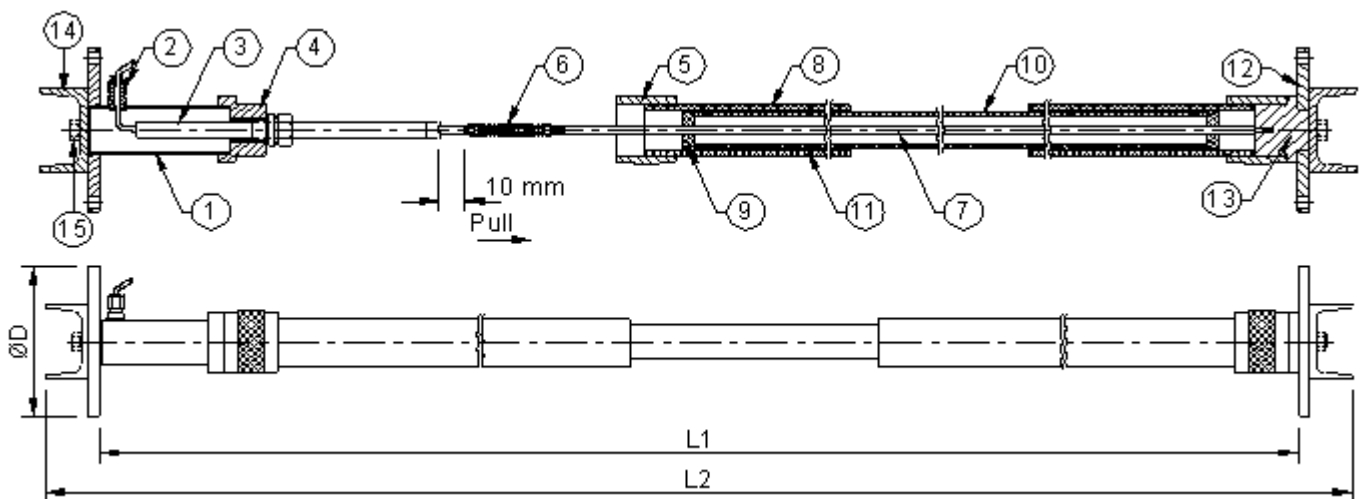
The extensometer system is supplied with different gage lengths (gage length is the distance between two anchors). A number of extensometer units can be connected in series to measure incremental displacements over large distances.

Movement of relative position between

two anchor channels at the ends of the soil extensometer is representative of mass movement. The relative movement between the anchors causes change in output of the vibrating wire sensor. This output can be measured by Encardio-rite model EDI-51V portable read-out unit/datalogger or monitored by a remote model EDAS-10 data acquisition system. The initial reading is taken as the datum. The difference between subsequent readings and initial reading gives the magnitude of the movement.

S. no.	Description	Qty.
1	Housing	1
2	Cable gland assembly	1
3	Sensor assembly	1
4	Adaptor	1
5	Socket	2
6	Adjustment unit	1
7	Extension rods	1
8	Telescopic protective tubing - A	2
9	Guide bush	2
10	Telescopic protective tubing - B	1
11	O' rings	4
12	Flange	1
13	Adaptor	1
14	Anchor beam channel	2
15	Hex. bolts	4

### SYSTEM DETAILS



All specifications subject to change without prior notice

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