

# FIXED EXTENSOMETERS

Fixed extensometer is usually defined as device placed in embankment fill or inside borehole for monitoring of settlement or heave between two points without use of a removable probe.

Either the Settlement Platform and the Tell-Tale extensometer are based on a riser settlement rod which is respectively connected to a plate buried at the embankment foundation level or grouted inside borehole as a deep benchmark in a firm soil.

Optical levelling measurements to the top of the riser rod provide precise monitoring. Electrical transducer can be used for remote readings without the need of survey crew.

Monitoring settlement below embankments on soft ground

Direct measurements of ground surface settlement or heave

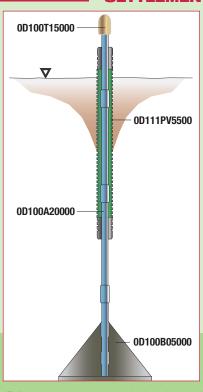
Monitoring deformation around underground excavation

Providing deep datum for determination of absolute settlement



## FIXED EXTENSOMETERS

#### SETTLEMENT PLATFORMS



Settlement platforms are typically used for monitoring settlement below embankments on soft ground. Sisgeo settlement platform consists of a galvanised steel square plate to which a riser settlement rod is attached. Optical levelling measurements to the survey point mounted at the top of the settlement rod provide a record of plate elevations. An anti-friction corrugate sheath is placed around the riser rod. Two sliding rings at the top and at the bottom of the settlement rod and a gap between the plate and the bottom of the corrugate sheath prevent downdrag forces on the riser rod.

Product code	Settlement Rod 0D100A20000	Corrugate Sheath 0D111PV5500
Outer Diameter	25 mm	55 mm (nominal)
Section length	2000 mm	supplied in roll
Type of junction	external couplings	continuous
	(M25 thread)	(self-screwing connection)
Material	stainless steel	PVC
	Square Plate	Top Cap and Survey Point
Product code	0D100B05000	0D100T15000
Dimension	500x500 mm	OD 40 mm, 50 mm long
Material	galvanised steel	brass

### **TELL-TALE EXTENSOMETER**

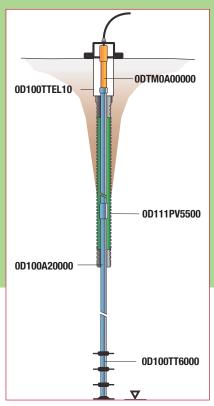
Tell-tale extensometer is a single point which is typically used for precise monitoring of ground surface settlement or heave. It consists of a stainless steel bottom anchor to which a riser measuring rod is attached. Anti-friction corrugate pipe is placed around the riser rod. Optical levelling measurements to the top head of the riser rod provide a record of ground settlement. Sliding rings at the top and at the end of the junction between riser rod and corrugate pipe prevent downdrag forces on the rod.

	Measuring Rod	Corrugate Sheath	Tell-Tale Anchor
Product code	0D100A20000	0D111PV5500	0D100TT6000
Outer diameter	25 mm	55 mm (nominal)	60 mm
Section length	2000 mm	supplied in roll	600 mm
Type of junction	external couplings (M25 thread)	continuous (self-screwing connection)	
Material	stainless steel	PVC	stainless steel

Tell-Tale Measuring Head	<b>OD100TT01000</b> for optical measures	<b>OD100TTEL10</b> for remote reading with DTM transducer
Diameter	40 mm OD survey pin	100 mm OD tube
Length	50 mm	1125 mm for embedment
Material	brass survey point and	stainless steel

#### DTM TELL-TALE ELECTRICAL TRANSDUCER

Nominal range	250 mm	500 mm	1000 mm		
Measuring range	210 mm	460 mm	960 mm		
Linearity	0.05% FS				
Repeatability	< 0.08 mm				
Hysteresis	≤ 0.25 mm				
Signal output	4-20 mA (current loop)				





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