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[www.pcte.com.au](http://www.pcte.com.au)

## Magnetic Extensometer



### Introduction

The Geosense® GEO-XM settlement system is used typically to monitor settlement and heave in foundations, excavations and embankments.

Settlement is identified at the depth/position where the settlement has occurred and as well as measuring the total amount of settlement.

The GEO-XM system comprises a series of magnetic targets positioned so that they move freely outside flush jointed access casing or inclinometer casing.

The targets may be 3 or 6 Leaf "Spider" targets, magnetic settlement plates or magnetic joints.

Settlement is measured by the relative position of the magnetic targets using a Reed Switch Probe that detects the magnets lowered down through the central access casing. Inclination where desired is measured using a portable inclinometer

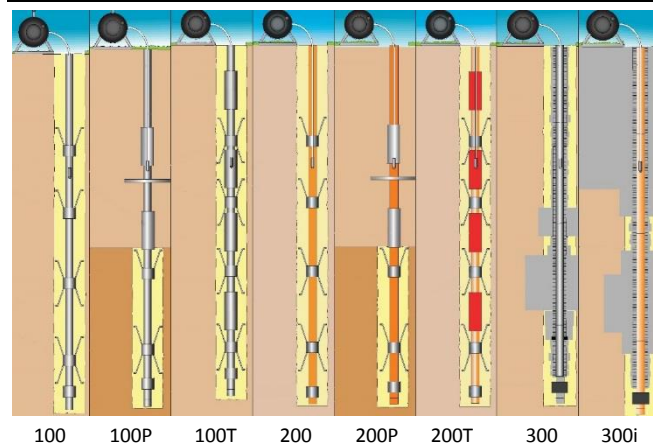
### Features

- Measures Total & Incremental Settlement
- Simple to Install
- Can be used with standard Reed Switch Probe

### Applications

- Excavations
- Embankments
- Dams
- Tunnels
- Foundations

### GEO-XM Settlement layouts



### GXM-100 Series Specifications

GXM-100, 100P & 100T use un-keyed access casing to monitor only settlement or heave in foundations.

#### Access Casing Specifications

Access Casing OD	33 mm
Access Casing ID	25 mm
Access Casing Length	1.5 or 3 m
Access Casing Weight	0.6 kg/m
Bottom Cap OD	33 mm
Material	PVC



#### Access Casing Telescopic Section Specification

Telescopic Section OD	42 mm
Telescopic Section ID	35 mm
Length	500 mm
Weight	0.55 kg
Material	PVC

#### Access Casing Magnetic Target Specifications

Spider Magnets	3 & 6 Leaf *
Magnet Targets	35 x 60 mm
Plate Magnet Target	33 x 300 mm
Datum Target	33 x 60 mm





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## GXM-200 Series Specifications

GXM-200, 200P & 200T use inclinometer casing so that the combined system can monitor settlement, heave and also inclination with the use of a portable inclinometer.

Inclinometer Casing Specifications		
Casing OD	70 mm	83 mm
Casing ID	59 mm	71 mm
Casing Length	1.5 or 3 m	
Casing Weight	1.27 kg	1.35 kg
Material	ABS	
Groove Spiral	< 0.005 Rad / 3m	
Bottom Cap OD	70 mm	83 mm



Inclinometer Casing

Inclinometer Casing Telescopic Section Spec.		
Section OD	70 mm	83 mm
Compressed Length	508 mm	
Extended Length	660 mm	
Range	152 mm	
Weight	0.77 kg	0.90 kg
Material	ABS	
Groove Spiral	< 0.005 Rad / 3m	

Inclinometer Casing Magnetic Target Spec.		
Spider Magnets	3 & 6 Leaf *	
Spider Target Chain	300 mm	400 mm
Spider Target	Release Pin	
Magnet Target	100 x 70 mm	110 x 85 mm
Datum Target	100 x 70 mm	110 x 85 mm



3 Leaf Spider Magnet

6 Leaf Spider Magnet w Chain

Corrugated Pipe

Plate Magnet Target

\* 6 Leaf targets only size suitable for high settlement regions with many telescopic joints

## GXM- 300 Series Specifications

The GXM-300 & 300i series surround either access casing or inclinometer casing with a flexible corrugated pipe that moves freely. It is intended for use in regions where high settlement is expected.

## Corrugated Pipe Specifications

Pipe OD	42 mm
Pipe ID	35 mm
Length	3 m or 50 m Coil
Magnetic Target/Coupler	42 x 50 mm
Material	PE
Bottom Cap	43 mm



Corrugated Pipe

## Ordering Information

- Geo-XM Variety
- Depth of installation
- Target type
- Number of magnetic targets and datum magnets
- Reed switch probe range
- Installation tool range

## Accessory Specifications

Reed Switch Probe	30, 50, 100, 150, 200 m
Installation Tool	30, 50, 100, 150, 200 m
Mastic Tape	10 m

## PCTE

PCTE have over 30 years' experience in the measurement and testing of concrete.

With experience in research, consulting and construction they are able to assist you in reviewing the issues and developing solutions. PCTE can provide more than just the equipment. They can provide leading technical support for your business.

## Other Equipment

GeoSense offer a complete range of structural health monitoring equipment, including VW strain gauges, extensometers, load cells and tilt meters.

The Olson Instrument range includes the NDE360, CTG, Freedom Data PC, DAS and resonance tester.

The full Proceq range of equipment is available for insitu non-destructive concrete measurement, including Schmidt Hammers, Covermeters, Half Potentials, Resistivity, Ultrasonics and Permeability.