# CGEO-EX1 Magnetic Probe Extensometer



## Applications

The Model CGEO-EX1 Magnetic Extensometer is designed for the measurement of settlement or heave of soils and rock within foundations and embankments, such as excavations, Dams, Embankments, sheet piles and slurry walls, foundations, tunnels, etc.

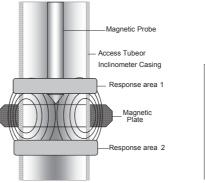
### Description

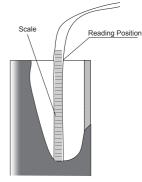
The Magnetic Extensometer System mainly comprises a probe, a graduated tape on a reel and an access pipe along which magnetic targets are positioned at different depths along the length of a borehole or the height of an embankment or fill.

The probe, lowered down the access tube and detects the magnetic field of the settlement targets. The probe incorporates a precision reed switch which is closed by the presence of a magnetic field. Once the probe detects the position of the target magnet in the borehole, the audio indicator will sound and the visual indicator will be illuminated.

#### Key Features

- Simple, reliable and easy to operate
- Lightweight and easily portable
- One instrument reads at many locations
- Contoured tape for accurate readings
- Audible (buzzer) and visual (light) alert signals





## Main Specifications

Model	CGEO-EX1
Range	30, 50, 100, 150, 200 m
Resolution	1mm
Repeatability	±1mm
Probe diameter	16mm
Working temperature	-10 to + 60°C
Consumption	0.05W
Power supply	6F22, 9V battery

#### Operation

The Magnetic Extensometer System is installed at locations where monitoring of settlement or heave is required. This System comprises a probe, a graduated tape on a reel and an access pipe along which magnetic targets are positioned at pre-determined intervals. The reed switches within the probe detect the magnets as it moves along the length access pipe.

When a magnet is detected, the switch circuit closes causing a light to display and a buzzer to sound at the reel.

There are various types of magnetic targets available; threelegged and six-legged spider magnets, retained by leaf springs for use in boreholes, and plate magnets for placing in soil or fill when adding further sections of access tube during construction.



CGEO INTERNATIONAL LIMITED Room 06, 13A/F, South Tower, World Finance Centre, Harbour City, 17 Canton Road, Tsim Sha Tsui, Kowloon,Hong Kong.

Tel: +852 2206 0092 Fax: +852 3003 0133 Http://www.cgeo-instruments.com Email: info@cgeo-instruments.com

CGEO INTERNATIONAL LIMITED Registered Office: Room 06, 13A/F., South Tower, World Finance Centre, Harbour City, 17 Canton Road, Tsim Sha Tsui, Kowloon, Hong Kong.

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