
GEO-XW100 Rotary Wire Extensometer

Designed to monitor the changes in distance between two anchor points up to a maximum of 30 metres apart



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Overview



The GEO-XW100 Wire Extensometer is designed to monitor the changes in distance between two anchor points up to a maximum of 30 metres apart.

It comprises a rotary potentiometric displacement gauge, an opposing anchor and a stainless steel wire that runs between the displacement gauge and the opposing anchor. With a wire extension kit, the length of the wire can be extended up to a maximum distance of 30 metres.

The displacement gauge is housed within a rugged steel enclosure with a mounting plate for horizontal or vertical mounting.

Two options for installation are available as follows:

- Exposed wire in combination with expansion anchor and eyebolt typically for attaching to rock or concrete.
- Wire running within a protective sleeve where the bottom anchor is mounted in the bottom cap at the end of the protective sleeve. The protective sleeves can either be mounted on posts above ground or buried typically used for slope and/or landslide monitoring.

APPLICATIONS

For monitoring large displacements in:

Landslides

Rockfalls

Surface faults

FEATURES

Displacement range up to 8000mm

Wire extendable up to 30 metres

External sleeve available for environmental and physical protection

Stainless steel support posts available

Simple to install

4-20mA output

Rugged enclosure rated to IP65

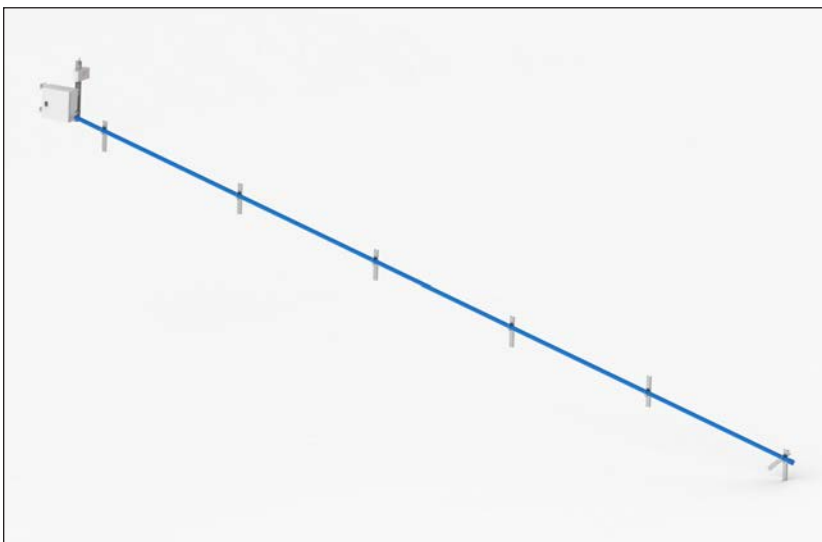


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Specifications

GENERAL

Sensor type	Potentiometric linear transducer
Displacement range	1800mm to 8300mm (model dependent)
Accuracy	± 1mm (dependent on temperature)
Resolution	Infinite
Nonlinearity	± 0.25% FS (1800mm to 4300mm); ± 0.5% FS (4800mm to 8300mm)
Repeatability	± 0.03mm
Power supply	12-30 VDC
Output signal	4-20mA
Displacement gauge wire	0.7mm
Extension wire	1.0mm Ø
Sensor body material	Cast aluminium
Enclosure material	Epoxy coated mild steel
Enclosure rating	IP66
Enclosure dimensions	300 x 200 x 150 mm
Operating temperature	-20°C to +85°C
Weight	4 kg



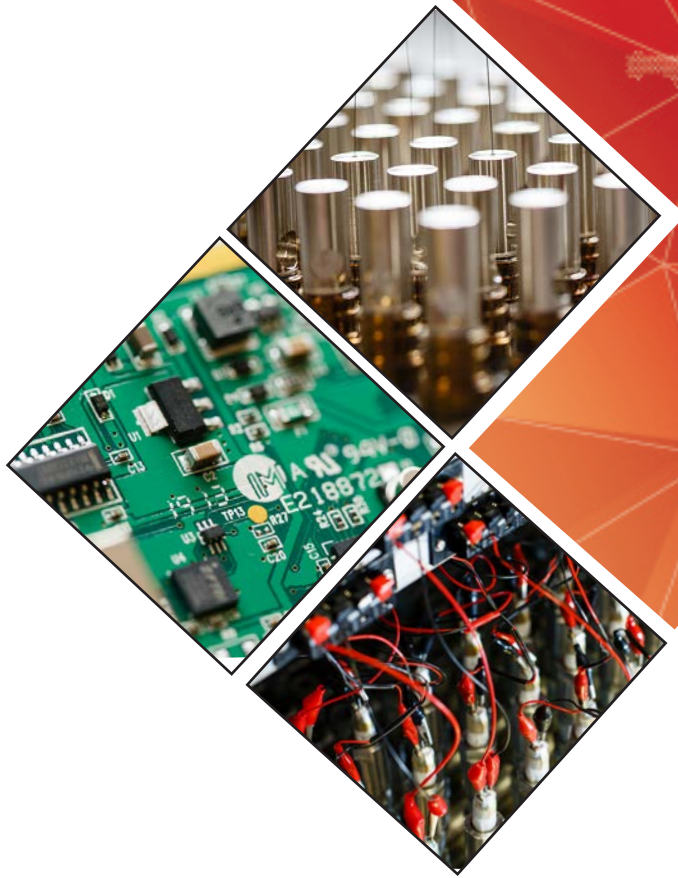
Typical arrangement for landslide monitoring with wire running in sleeve mounted on posts above ground



Bottom Anchor



GEO-XW Wire Extensometer mounted within enclosure with WI-SOS 480 Node



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