



# RESISTANCE WIRE EXTENSOMETER

## Tech note

**The head anchor of an RWE is only 60mm long, thus enabling it to be located very close to the wall surface, i.e. in the shotcrete lining, if used.**

**TRT's Top Logger can measure up to eight RWEs**

**One Top Logger could monitor two convergence measuring sites of 4 x RWEs each**

**One Top Logger could monitor one convergence measuring site with 3 x RWEs installed each side of the opening and 2 x RWEs installed in the roof**

**Reading resolution of RWEs using Top Logger:**

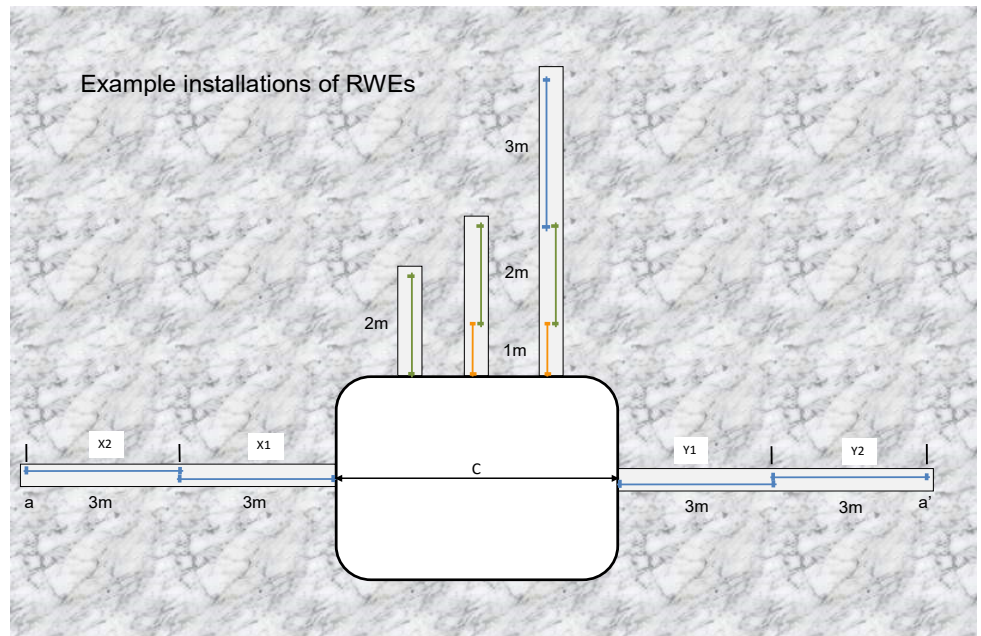
**1m: 0.0009 mm**

**2m: 0.0018 mm**

**3m: 0.0039 mm**

Resistance Wire Extensometers (RWE) are accurate, easily installed instruments for measuring displacement/deformation in rock or soil.

- standard lengths 1/2m, 1m, 2m, 3m
  - can be installed as a single instrument, or multiple instruments nose-to-tail to cover a longer measurement length
  - monitored by hand-held readout, or by data logger
  - high resolution and accuracy with good range in extension
  - Can be used to measure convergence C of a roadway/drive without impeding traffic, as shown in the example below. Two 3m long RWEs are grouted into boreholes on opposite sides of a drive. If the toes of the boreholes a & a' are considered to be in stable ground, then measured displacements  $X_1+X_2+Y_1+Y_2 = C$
- 2m, 3m, 3m or 3m, 3m, 3m strings of RWEs could be installed, thus pushing locations a and a' 8m or 9m away from the walls of the opening.



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