

# INTRINSICALLY SAFE MAGNESONIC EXTENSOMETER

The Intrinsically Safe flexible sonic probe extensometer allows detailed measurement of ground movement in tunnel excavations. This highly accurate device ( $\pm 0.1\text{mm}$ ) can measure up to 20 anchor positions in a 7.5m long hole. The instrument consists of a flexible probe and transducer head which is connected to a portable battery powered readout unit with a Liquid Crystal Display resolution of 0.1mm. A single system can be used to measure strata movement at multiple locations as the probe is only inserted into the hole when a reading is to be taken. Hole furnishings are low cost and simple to install.

The Intrinsically Safe Magnesonic Extensometer is designed to meet the requirements of EN 50014 and EN 50020 to operate reliably in potentially explosive atmospheres.

## Magnesonic Extensometers are used to:

- Measure dilation of the strata throughout the length of a 7.5m hole;
- Identify the horizons where dilation occurs;
- Determine the height of failure or roof softening;
- Demonstrate trends of strata deformation.



Official Approvals: MECS No.96 D7196; Use Category EExial

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