



# ▶ ETM01 Sonic Extometer



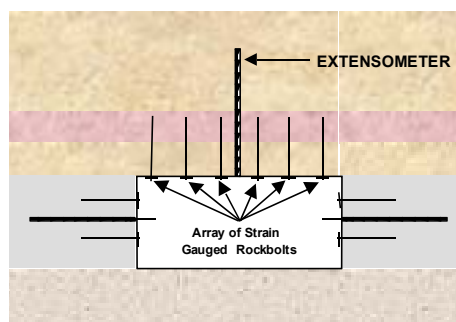
The ETM01 Extometer is a flexible sonic probe extensometer which allows detailed measurement of ground movement in mine and tunnel excavations. This highly accurate device ( $\pm 0.5\text{mm}$ ) can measure up to 20 anchor positions in a 7m long borehole. The instrument uses the “magnetostrictive” principle to identify the positions of the magnetic anchors in the borehole. It consists of a flexible probe and transducer head which is connected via a cable to a portable rechargeable CANbus readout unit. This incorporates an LCD screen displaying readings to a resolution of 0.005mm. A single system can be used to measure strata movement at multiple locations in a mine or tunnel system as the probe is only inserted into the hole when a reading is to be taken. Borehole accessories are low cost and simple to install. An ETM01 system is supplied with probe, probe carrier, cable, readout, battery charger, manual and the Exbolt data analysis software.



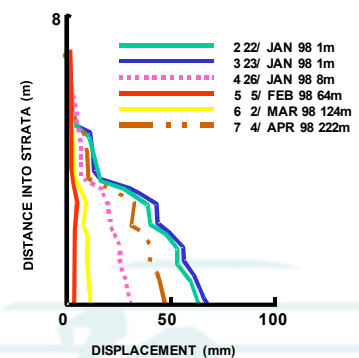
The ETM01 Extometer is not ATEX approved and should not be used in areas where there is a risk of an explosive atmosphere unless suitable precautions are taken to ensure that an explosive atmosphere is not present. An independent assessment for its use under the Provisions of Regulation 19 (2) g of the UK Electricity at Work Regulations are included in the manual.

### ETM01 Sonic Extometers are used to:

- ▶ Measure dilation of the strata throughout the length of a 7m hole;
- ▶ Identify the horizons where dilation occurs;
- ▶ Determine the height of failure or roof softening and
- ▶ Demonstrate trends of strata deformation.



A TYPICAL ROCKBOLTED TUNNEL MONITORING STATION



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## ▶ Mark IV Sonic Extensometer Anchor Sets

