

A typical installation of a crimped TDR cable into a borehole to be filled with grout.



Portable Time Domain Reflectometer (TDR100)

	<b>PRODUCT CATEGORY:</b>
	<b>INCLINOMETERS + TILT SENSORS</b>

# Time Domain Reflectometry

Metallic Time Domain Reflectometry is a simple and economical way of detecting and interpreting rock and soil mass response to underground and surface mining using coaxial cables grouted in boreholes. MTDR can be used effectively to locate rock and soil mass movements.

MTDR involves the installation of a coaxial cable in a borehole filled with grout that matches existing soil or rock conditions. A TDR cable test unit is employed to generate a voltage pulse along the cable and receive reflections. Reflections are generated by cable deformations, abrasions and severing. Crimps at known locations along the cable are used to provide depth datum.

As movement occurs, the reflections along the cable change as the cable deforms. By connecting the cable tester to a PC through an RS232 cable, MTDR reflections can be interpreted by software, thereby inferring location, type and rate of earth movement. MTDR systems can be combined with data loggers and multiplexers to allow remote readings of multiple cables.

## > APPLICATIONS

- Monitoring rock and soil movement.
- Monitoring subsidence above abandoned underground mines.
- High wall slope monitoring in open pit mines.

## > FEATURES

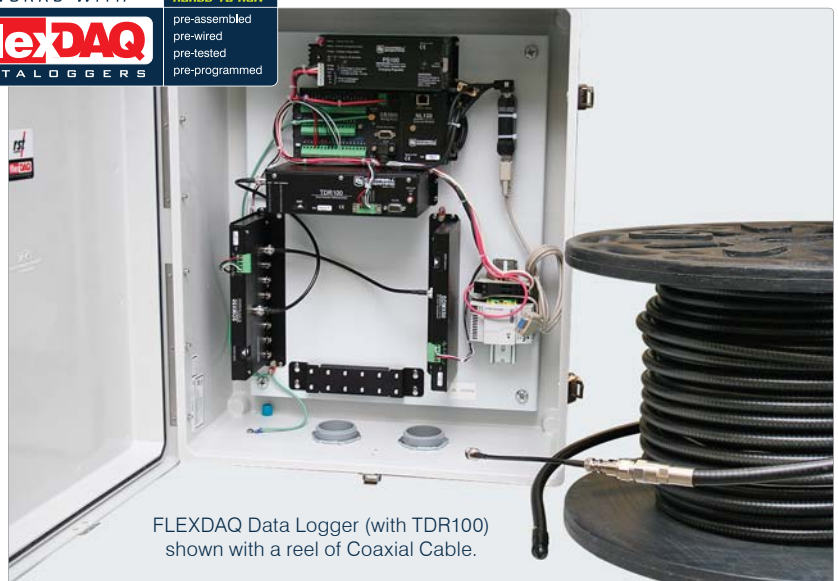
- Economical installation and low data acquisition costs.
- Ability to monitor deformation along the entire length of the borehole.
- Can be used with RST's FLEXDAQ Data Loggers and GeoViewer Software

## > BENEFITS

- |                          |                                |
|--------------------------|--------------------------------|
| ✓ <b>Increase Safety</b> | ✓ <b>High Accuracy</b>         |
| ✓ <b>Cost Effective</b>  | ✓ <b>Increase Productivity</b> |

**WORKS WITH**

**READY TO RUN**  
pre-assembled  
pre-wired  
pre-tested  
pre-programmed



FLEXDAQ Data Logger (with TDR100) shown with a reel of Coaxial Cable.



innovation in  
geotechnical  
instrumentation

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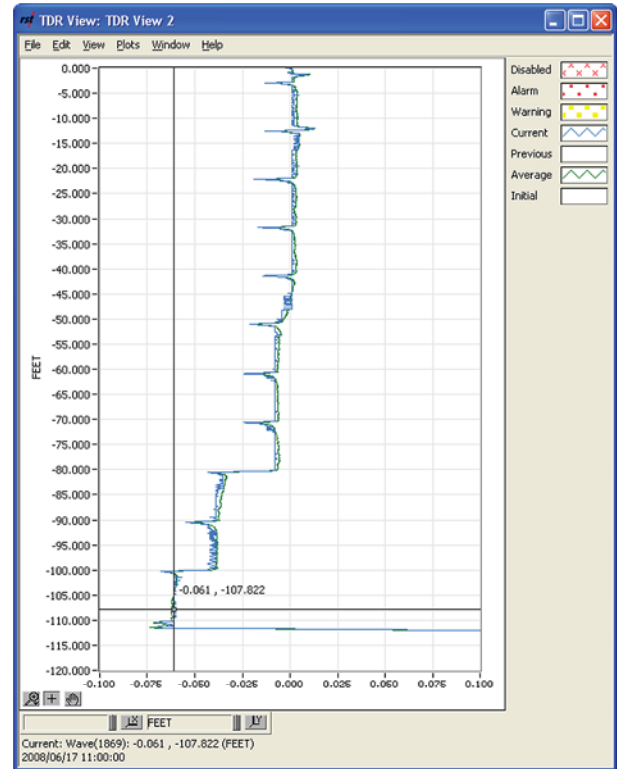
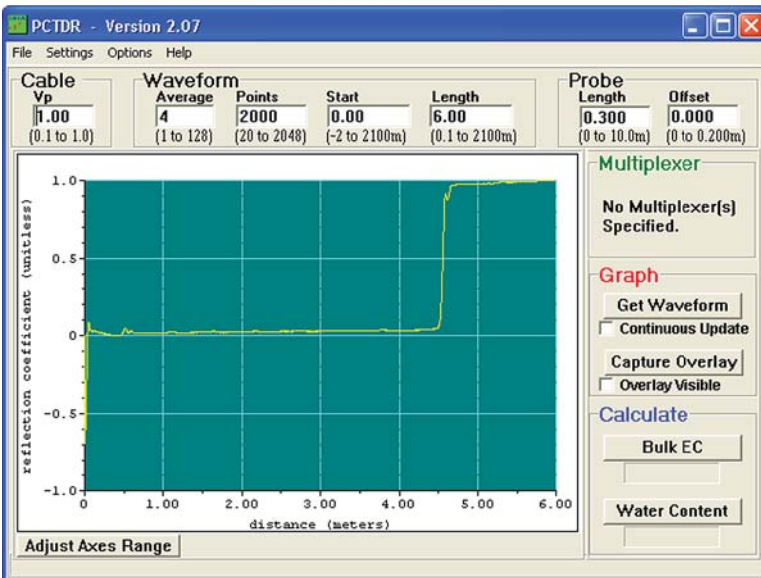


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## SPECIFICATIONS + ORDERING

ORDERING	
ITEM	PART #
TDR Coaxial Cable with Connector Kit	EL810918
FLEXDAQ Data Logger (with TDR100)	Contact RST for details
Portable Time Domain Reflectometer	ELGL3000



TDR Software (above) is included with the FLEXDAQ or Portable versions of the TDR100.

Screenshots above and below showing TDR data in RST's GeoViewer Software (separate brochure at [rstinstruments.com](http://rstinstruments.com))

