

EL/MEMS Data Recorder

Applications

The EL/MEMS Data Recorder is a recording readout for EL SC sensors and MEMS sensors. Its main application is obtaining readings from tiltmeters. It can also be used to check IPI sensors at installation time.

Simple to operate, the Data Recorder stores up to 6000 readings, and can transfer the readings to a PC for processing.

Basic Operation

The Data Recorder has just three controls: an on/off switch, an Enter key, and a Change key.

To take a reading, switch on the power, connect the sensor, and press the Enter key. The reading appears.

To save a reading, press Enter twice more, once to confirm a sensor ID, and once to record the reading.

Settings

Change settings with the Change key. You can set the display to show uniaxial or biaxial readings. You can also set the readout to show readings from multiplexed IPI sensors. The Change key also lets you set a sensor ID when you save a reading.

Transferring Readings to a PC

Connect the Recorder to your PC and start the Manager program. Specify a file name and location for the readings, and two mouse clicks later, the data is on your PC, ready for your spreadsheet program.



Advantages

Simple Operation: Learn how to use the Data Recorder in just a few minutes. Most operations are performed by pressing a single key. Data retrieval is just as easy.

Reliable: Readings are stored in secure, non-volatile memory that keeps data even when batteries are fully discharged.

Spreadsheet Friendly: The Windows-based Manager program retrieves readings and stores them in ASCII file, ready to open and process with your spreadsheet program.

No Setup: The Data Recorder is always ready to use. There are no sensor lists or calibration factors to load.

No Special Parts: The Data Recorder uses standard cables and batteries. Built-in terminals eliminate the need for a jumper cable. The serial interface cable can be replaced at any computer store, and the standard D-cell batteries eliminate the need for a charger.

EL/MEMS DATA RECORDER

EL/MEMS Data Recorder56813500

Includes readout, batteries, interface cable 50306869 for PC and CD containing manager software and user manual.

Sensor Compatibility: Reads uniaxial and biaxial EL SC sensors (signal conditioned) and MEMS sensors from Slope Indicator. Also reads thermistors built into these sensors.

Range: 0 to $\pm 2.5V$.

Resolution: 0.004% FS.

Accuracy: $\pm 0.1\%$ FS.

Temperature Measurement: -20 to 120 °C with $\pm 1^\circ C$ accuracy.

Displayed Units: Volts and degrees C.

Sensor IDs: Stored readings are identified by date, time, and sensor ID number. User assigns ID when saving a reading.

Memory Capacity: 6000 readings with ID, date, and time.

LCD: 2 line x 20 character, high contrast LCD with extended temperature rating.

Controls: On/Off switch with auto-off timer, keypad with two keys.

Connectors: Panel-mounted terminal for sensor cables, DB9 connector for serial interface cable.

Interface Cable: Included part 50306869 is a modem-type serial interface cable with DB9 connectors on either end.

Batteries: Three 1.5 volt alkaline D-cells provide about 30 hours of continuous use at 20 °C.

Environmental Limits: -20 to 50 °C.

Dimensions: 235 x 190 x 108 (9.25 x 7.5 x 4.25").

Weight: 1.5 kg (3.3 lb.).

EL DATA RECORDER MANAGER

EL Data Recorder Manager software is used to retrieve data from the recorder. It is also used to set the recorder's internal clock and a few other options. The software is supplied on CD with purchase of the recorder and can also be downloaded from www.slopeindicator.com.

System Requirements: Windows computer with serial port. If not serial port is available, a USB to serial adaptor must be used.

Settings: Set the recorder's clock or synchronize with a PC's clock, set maximum sensor ID number.

Data Retrieval: Choose to retrieve all readings or a selected range of readings. Readings are stored in ASCII format ready for import into a spreadsheet. EL readings are stored in volts. Temperature readings are stored in degrees C.

TERMINAL BOX



Terminal Box57711600
Jumper Cable56813557

Terminal box provides connections for signal cable from 12 sensors. Sensors are selected by rotary switch. Data Recorder connects to box via jumper cable. Terminal box measures 290 x 345 x 135 mm (11.5 x 13.5 x 5.25").

Jumper cable connects Data Recorder to terminal box. Can also be used to connect to connectors on the end of sensor signal cable. Length is 2m.