

FIELD DATA LOGGER

Sigra's Field Data Logger is a versatile device designed to monitor four types of sensors: Vibrating wire, Frequency, Voltage and Resistance. The device has a short range radio link. Each data logger may be used to gather data and act as a transceiver. The radio link used in these loggers is a low power device that does not require any licence to use.

Setup Options

Each logger may be connected via an RS232 connection directly to a computer, modem, or a mobile phone. This data is gathered directly into the telephone system. The loggers may also be paired to powerful radio transmitters to give greater radio range.

The use of radio communication affords significant ease of use. In its simplest form it saves the user from having to get physically to the logger to retrieve the information. In this mode the user might sit in a car near the logger and simply download information into a laptop computer via a logger used as a transceiver and then drive on to the next site.

The field data logger can also be set up as a fan pattern of loggers, where a logger is used as a base station and is connected to the telephone network via a direct line or a mobile phone. This logger communicates with other loggers in the surrounding area via a whip or directional Yagi aerial. This configuration could be used for slope monitoring.

Another use of the field data logger is where a base station logger communicates with distant loggers in a daisy chain configuration with intermediate loggers relaying information.



Advantages

Sigra's Field Data Logger has many advantages and uses due to its unique design:

- Radio communication aids remote retrieval of information.
- Download information to a laptop computer via a transceiver logger.
- Many layout arrangements to suit site layout and numbers of loggers.
- Base station logger set up to communicate with other loggers in the surrounding area.
- Multiple radio linked loggers reduces the consequence of a lightning strike.
- Intelligent loggers can be programmed to record a change of value.
- The logger can be used as an early warning system should sensor exceed threshold value or rates readings, delivering a message to a host computer or specified phone number.



Specifications

Number of Logging Channels:

- 8 channels for Voltage, Resistance and Frequency
- 4 channels may be used for Vibrating Wire Sensors

Compatible Sensors:

- Vibrating Wire, 0.5 to 5kHz
- Voltage output, 0 to 5V
- Resistance Devices, 0 to 65.6k Ω
- Frequency, 0.5 to 5kHz
- Pulse type devices when fitted with optional counter board

Analogue to Digital Converter:

- 16bit with precision voltage reference

Radio Range:

- 500 to 800m typically

Operating Radio Frequency:

- 315.00/433.92 MHz (Country dependent)
- Does not usually require any licensing arrangements.

Aerial:

- Quarter wave whip. An optional magnetic base mount available for vehicle use.

Battery:

- Rechargeable NiMH or single use Alkaline or Lithium AA cells.

Solar Power:

- Available for general use.

Switched Power Out:

- A 5V supply may be used to power sensors while sampling.

Environmental rating:

- The Sigra Logger is housed in a rugged, waterproof case.

Dimensions:

- 170 x 100 x 60mm plus aerial.

Software:

- For use on PCs running Windows