

Micro-800 Datalogger

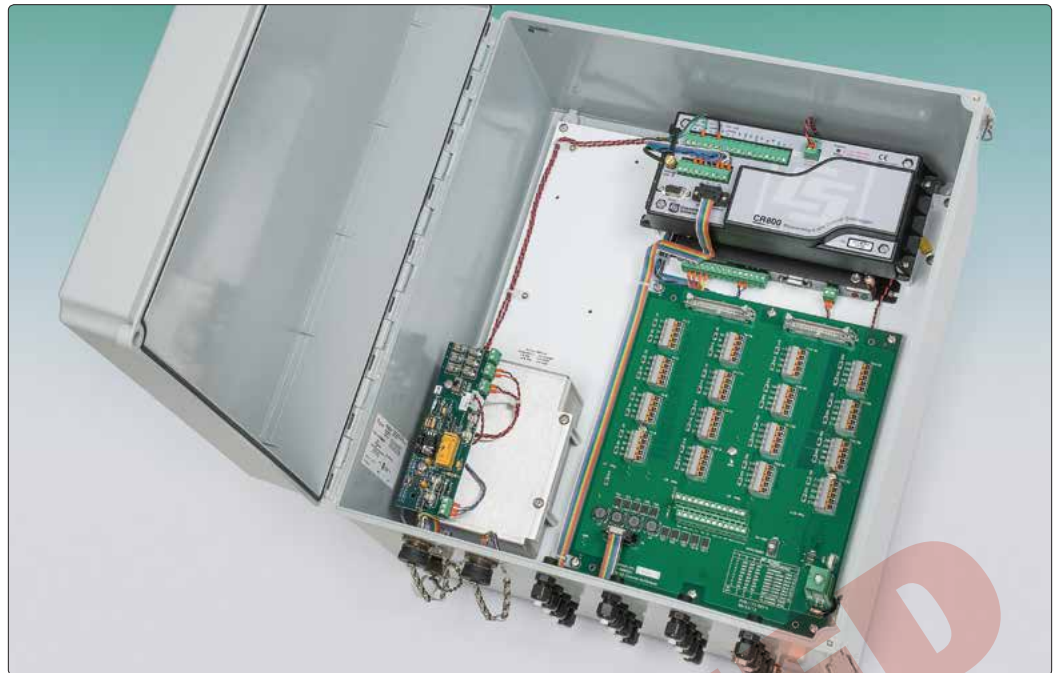
Applications

The Micro-800 is an economical datalogger system ideally suited for remote, unattended monitoring of a variety of sensors in geotechnical, hydrologic, meteorologic and oceanographic fields. Applications include...

- Dam monitoring
- Tunnel and underground excavation monitoring
- Structural monitoring
- Water and stream levels
- Pump tests
- In-Place Inclinometer readout
- Alarm actuation



● Model 8025 Micro-800 with radio modem (configured for a Model 6150 MEMS In-Place Inclinometer).



● Model 8025-2 Micro-800 Datalogger.

Operating Principle

The Micro-800 is a complete datalogger, designed around the Campbell Scientific, Inc. (CSI) Model CR800 Measurement and Control System and the AVW200 Vibrating Wire Spectrum Analyzer, an interface designed to eliminate the effects of electrical noise and interference on Vibrating Wire (VW) sensor signals.

The Micro-800 is housed in a NEMA 4X fiberglass reinforced polyester enclosure, which is designed for use in harsh environments with wide temperature tolerance, resistance to moisture and humidity and protection against lightning damage.

Although primarily manufactured for use with VW sensors and thermistors, the Micro-800 can be configured at Geokon's factory to read MEMS, voltage, 4-20 ma, and numerous other specialty sensor types.

The Model 8025-2 Micro-800 incorporates an integral Model 8032 Multiplexer, for reading 16 VW gages and 16 thermistors, along with a 10-pin connector to allow the addition of one external Model 8032 Multiplexer or up to eight daisy-chained Multiplexers.

The Model 8025-3 incorporates two integral Model 8032 Multiplexers, for reading 32 VW gages and 32 thermistors. The Model 8025-4 and 8025-5 are identical to the Model 8025-2, but are configured for 32 VW gages only (8025-4) or 32 Thermistors only (8025-5).

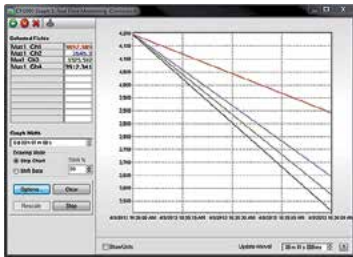
Standard memory storage capacity for the Model CR800 Measurement and Control System is 4 MB of battery-backed SRAM. The number of readings stored is dependent on the system configuration, including the number of sensors and multiplexers used (please contact Geokon for further details).

Wireless Networks

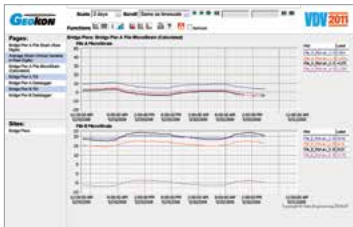
The Micro-800, when equipped with a radio modem, is ideal for use in wireless networks—either as a stand-alone unit, reporting directly to a radio base station, or as a base station logger in a network of wireless VW interfaces (please see the Model 8040 Series Wireless Vibrating Wire Interface data sheet for more information).



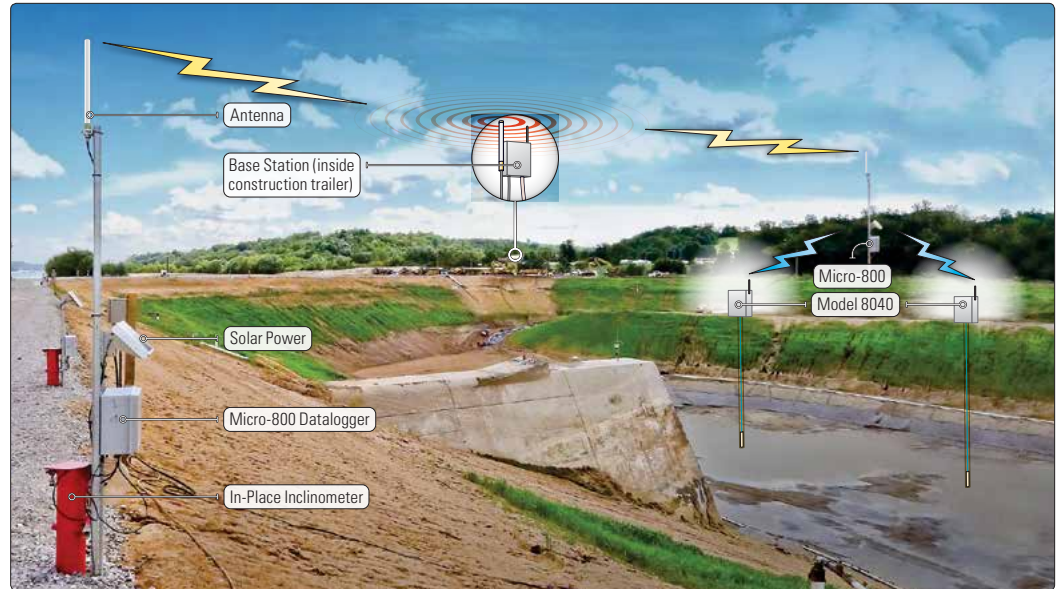
- Remote datalogger base station (or hub) with cellular whip antenna for PC COMMS and high gain OMNI radio antenna for Model 8040 wireless nodes.



- LoggerNet® screen shot.



- Vista Data Vision db.data.brower screen.



- An example of a Model 8025 Micro-800 and Model 8040 Wireless Multiplexer network installation.

Communications

The Micro-800 Datalogger is designed for use with Windows® based computers containing a serial port or USB adapter. Communication is accomplished by a direct connection with the datalogger. Additional communication methods are available, such as: Short Haul Modems, RS-485 Multidrop Interfaces, Landline Telephone Modems, Cellular Modems, 900 MHz / 2.4 GHz Radio Modems, and Ethernet Interfaces.

Software

Windows® based LoggerNet® software provides the user with complete control over the datalogger, by allowing the user to create the program which is executed by the datalogger.

Windows® based MultiLogger software allows for an efficient means of deploying the datalogger by providing easy to use menus and selections to build the datalogger program, monitoring the current activity, and collecting the data.

Vista Data Vision (VDV) software provides a complete data management package for the previously collected data. VDV also provides the means for browsing, reporting and publishing data to the Internet.

Power & Control

The Micro-800 is powered by an internal 12 V, 7.0 Ah Gel Cell that is maintained by an external AC powered charger (supplied), or a solar panel can be connected to provide power to the system (please contact Geokon for details).

Technical Specifications

Input Range	(vibrating wire) 100 to 6500 Hz (thermistor) ±2500 mV
Resolution	(vibrating wire) 0.001 Hz RMS (thermistor) 0.001 Ω RMS
Accuracy	(vibrating wire) ±0.013% of reading (thermistor) ±0.25% of reading
Excitation Output	±2.5 V or ±6 V
Battery	12 V, 7 Ah Gel Cell
Temperature Range	-25°C to +50°C
L × W × H ¹	Model 8025-2: 502 × 461 × 263 mm Model 8025-3: 502 × 461 × 263 mm

¹Does not include mounting feet.



The World Leader in Vibrating Wire Technology™

Geokon, Incorporated
48 Spencer Street
Lebanon, NH 03766
USA

Geokon maintains an ongoing policy of design review and reserves the right to amend products and specifications without notice.

1 • 603 • 448 • 1562
1 • 603 • 448 • 3216
geokon@geokon.com
www.geokon.com

©2018 Geokon, Incorporated. All Rights Reserved | Doc. Rev. G.3, 03/18