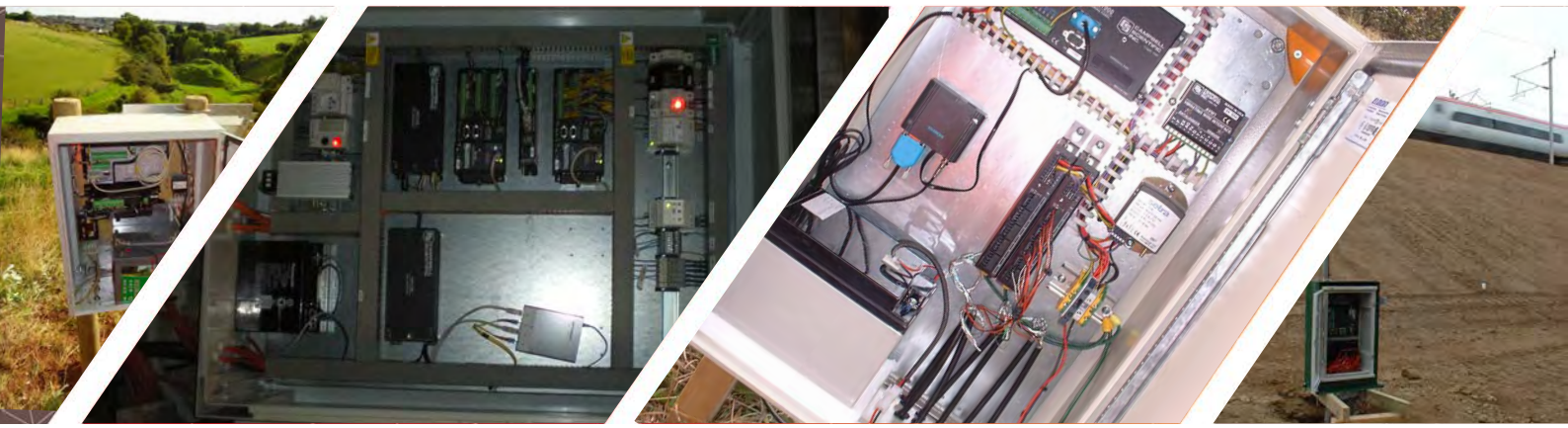
DATASHEET

GeoLogger GL Series

The Geosense® Geologger GL Series is built around the Campbell Scientific CR800 and CR1000 control modules and offers reliable remote monitoring under demanding geotechnical conditions



GEOSENSE

GeoLogger GL Series

Overview

The Geosense® Geologger GL Series is built around the Campbell Scientific CR800 and CR1000 control modules and offers reliable remote monitoring under demanding geotechnical conditions.

Functions include sensor measurement, timekeeping, data reduction, data storage, control and alarm notification.

The GL series of data loggers are capable of monitoring all types of sensors including vibrating wire, strain gauge, MEMS (analogue & digital), thermistor, linear potentiometer etc.

The two main models are the GL-1000 and the GL-800 although other options are available on request.

The requirement for monitoring varies widely depending on the project and the final configuration will depend on the type, number, precision and speed of measurements required. Each Geosense GL Series data logger is pre-assembled, pre-wired, pre-tested and pre-programmed prior to delivery meaning quick and easy set up on site.

Designed to be mounted in the field, the GL series is mounted in robust water resistant IP66 enclosures to provide maximum protection under the harshest environments.

APPLICATIONS

Remote data logging of geotechnical & structural instrumentation in:

- Dams
- Tunnels
- Deep excavations
- Buildings
- Bridges

FEATURES

- Tailored to your individual requirements
- Precision measurement capability
- Rugged construction
- Wide operating temperature range
- Low power consumption

GeoLogger GL Series

Specifications

Listed below are all of the possible components of a GL Series data logging system. The choice of components will depend on the individual project. Please contact Geosense for project selection.

DATA LOGGER MODULES

The CR1000 & CR800 measure sensors, drive direct communication & telecommunications, reduce data, control external devices and store data and programs in on-board, non volatile storage.

The electronics are RF shielded and glitch protected by the sealed stainless steel canister. A battery-backed clock assures accurate timekeeping. The on-board, BASIC like programming language supports data processing and analysis routines.

INTERFACE

Vibrating wire. The AVW200 interface is required when using vibrating wire sensors and communicates using either RS-232 or SDI-12; Digital; RS-232 to RS-485

MULTIPLEXERS

Multiplexers increase the number of input channels which can be scanned by a single data logger and are used where several sensors are being connected. Flexi-Mux allows a single channel of data loggers to be sequentially connected to numerous sensors. Each Flexi-Mux can sequentially multiplex 5 groups of 4 lines for a total of 20 lines. Alternatively, internal DIP switch settings permits the multiplexing of 10 groups of 2 lines. Built-in transient protection.
AM16/32B 16 or 32 Channel Multiplexer
Multiplexes up to 32 single-ended or differential two-wire sensors at a time.
Alternately, multiplexes up to 16 single-ended or differential four-wire sensors at a time.

POWER SUPPLY

Mains with trickle charge
Lead-Acid Power Supplies
PS100E-LA a 12V, 7Ah battery
BP17E-LA a 12V, 17Ah battery
BPE24-LA a 12V, 24Ah battery
All have a temperature-compensated charging circuit, which is attached to the side of the battery carrier.
Solar panels - Used to provide back-up power supply to the battery.
SP5 (4 to 5 watt output) and SP10 (9 to 10 watt output) are normally selected for use with a data logger operating with sensors whose power requirements are small and with relatively few external peripherals.

COMMUNICATIONS

Radio Frequency (RF) Communications
Spread spectrum, UHF, VHF, or ELOS radio frequencies can be used to retrieve data from monitoring sites. Radios in the 900 MHz, 2.4 GHz, 148 to 174 MHz, 400 to 430 MHz, and 440 to 470 MHz range are available. Licences are required for some RF ranges and in the UK we recommend the 2.4 Ghz option.

GSM

An interface and cables to allow connection of the module to the CS I/O port of the data logger.
The CS-GSM-RS-232 kit includes a special cable for connection to the RS-232 port on the data logger. Configured for dial-up (CSD) operation.

GPRS

Allows GPRS communications between the data logger and remote PCs over the internet. Additional modes of communication include sending and receiving data via email, ftp or web pages.

BAROMETER

Provides accurate, unattended measurements of barometric pressure over a wide range of elevations where barometric compensation is required.

ENCLOSURE

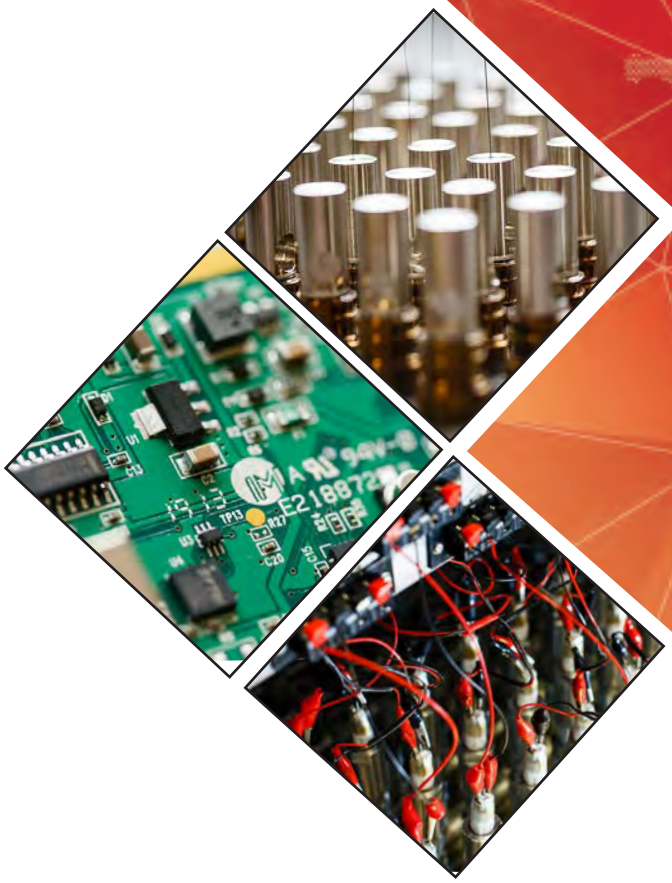
A range of enclosures to IP66.
600 x 400 x 260mm houses up to six multiplexers

SUPPORT BRACKET

Special support bracket for the data logger box and/or solar panel

SOFTWARE

A range of software to allow various levels of access and manipulation.
PC200W
PC400
LoggerNet



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V1.2 09/2017