



Description

The Modem logger is a highly advanced, rugged, low-power, 2 channel datalogger, with one channel reading an external 0-10V or 4-20mA sensor and the other channel an external pulse sensor.

The unit combines a high capacity datalogger with an on-board GSM/GPRS Quad band modem. The logger runs on a single D-Cell Lithium battery and is housed in a compact, robust enclosure for reliable use in the field.

Readings are stored on a local SD card and are transmitted in engineering units to any FTP site via the GSM/GPRS modem.

Logger settings are easily configured by the user, allowing full control of settings and alarms, making the device completely adaptable to site specific changes.

The Logger incorporates an intelligent 'passive' to 'active' alarm system with up to six user defined prioritisation thresholds, reducing battery consumption and an overload of needless data.

With high capacity monitoring, automatic data transmission and active multi layered alarming, the Modem Logger is an efficient, cost effective solution to meet your monitoring requirements.

Features

- On-board GSM/GPRS modem
- Data delivered in engineering units
- Intelligent alarming with 6 user defined thresholds and alarm notification via SMS and FTP
- Optional alarm suppression
- Low power; requires one D-Cell Lithium battery
- Reads 2 channels; a 0-10V or 4-20mA sensor and a pulse sensor
- Integrated barometric pressure sensor
- Micro SD card

Benefits

- Data delivered direct to 'ARGUS' Software via FTP
- No post-processing of data required
- Swift notification of changes in site conditions, alerting multiple users
- Reduces the likelihood of false alarms
- Operates for up to 2 years without battery change
- Intelligent dual sensor capability
- Atmospheric pressure compensation
- Internal logging of millions of data points



Comprehensive information about this product and our full range is available at www.soilinstruments.com
If you would like to speak with someone directly please call +44 (0)1825 765044 or email sales@soilinstruments.com

Operation

The Modem Logger is a high capacity two channel datalogger with an integrated barometric compensator and an on-board GSM/GPRS Quad band modem and SIM. Channel one reads a 0-10V or 4-20mA sensor and channel two a pulse sensor, such as a rain gauge.

The Logger can either be programmed manually using a PC or laptop with a USB cable, or remotely via the FTP server using an editable settings file from which reading, logging and uploading parameters are set and calibration factors and alarms defined.

The alarm system, SMS functions, reading intervals and schedules can be programmed or changed at any time quickly and efficiently via the FTP site. The data can then be viewed by anyone at any time; all that is required is an internet connection and the log on details for the FTP server.

The multi layered 'passive' to 'active' alarm system incorporates up to six user defined prioritisation thresholds. Once setup, the Logger remains in 'passive' mode logging at user defined intervals until any of the pre-set alarm levels are breached, at which point it will automatically switch to 'active' mode and initiate increased data transfer to the FTP site whilst simultaneously sending out multi-level SMS text alerts to multiple contacts.

The readings are automatically transferred to the FTP site in engineering units, so data can be directly imported into 'ARGUS' Monitoring Software.

Applications

The Modem Logger reads a 0-10V or 4-20mA sensor and a pulse sensor for geotechnical and environmental monitoring.

Typical applications include:

- Pore pressure
- Water level
- Rainfall
- Displacement

Associated products

For details on:

Catalogue code:

Dataloggers	D1
MEMS Piezometer	W15
Linear Potentiometer Crackmeter	J6

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THE TECHNICAL RATING FOR THIS PRODUCT:

INTERMEDIATE



As the correct installation of any monitoring sensor or system is vital to maximise performance and accuracy, Soil Instruments makes the following recommendations, for the skill level of the installation contractor.

ADDITIONAL SUPPORT

We offer installation and monitoring services to support this system. For more information please email : sales@soilinstruments.com or call : **+44 (0) 1825 765044**

ADVANCED



The installer is trained and experienced in the installation of this type of instrument or systems, and is ideally a specialist Instrumentation and Monitoring contractor.

INTERMEDIATE



The installer already has previous experience and/or training in the installation of this instrument or system.

BASIC



As a minimum the installer has read and fully comprehends the manual, and if possible has observed these instruments or systems being installed by others.

Specifications

Sensor Input

Sensor type (channel 1)	0-10V	4-20mA
Sensor type (channel 2)	Pulse sensor	

Power

Power supply	1 Lithium (e.g. LiSOCl ₂) D-cell battery, 3.6V (not included)	
Current consumption	Typically 5mA while reading a sensor	Maximum 25mA while reading a sensor
Sensor transmission	Typically 200mA during GSM/GPRS use	
Battery life ¹	Over 2 years @ 15 minute intervals and daily data transmission	18 months @ 15 minute intervals and daily data transmission

GSM/GPRS

Frequency band	Quad band 850/900/1800/1900 MHz	
Module	On-board GSM/GPRS modem	
Antenna	Internal printed circuit board	
SIM card	On-board, SIM lock free	

Datalogging

Logger resolution	12-bit A/D converter and over sampling	
Logging frequency range	User defined, up to 1 reading per second	
Sampling frequency	User defined, sampling typically every 1 second to every 10 seconds (to check against alarm levels)	
Data transfer	Every 24 hours as standard and immediately when user defined alarm is triggered	

Data Storage

Memory size	2GB micro SD, capable of storing millions of readings	
Format of reading set	Time stamp, readings in raw or engineering units, information including battery voltage	
Method of data transfer	Via GPRS/FTP and stored locally on the SD card	

Enclosure

Housing material	Glass fibre, reinforced polyester, corrosion free	
Ingress protection	IP66	

Physical Properties

Size	L 162mm x W 82mm x H 60mm	
Weight	1kg	

¹Battery life dependent on frequency of readings and data transmission rates.

Ordering Information

Battery and Mounting Brackets to be Ordered Separately.

Modem Logger

D8-2-VP	Modem Logger GSM/GPRS, Voltage and Pulse input; excludes battery and mounting bracket set.
D8-2-MAP	Modem Logger GSM/GPRS, 4-20mA and Pulse input; excludes battery and mounting bracket set.

Accessories

TL17-Mount	Wall Mounting Bracket Set.
D8-Mount-Pole	Mounting Bracket for 50mm (2") Diameter pole.
BATT-3.6-19	3.6V Lithium battery; 1 required per logger.
W15-Rain-0.2mm	Professional rain gauge, 0.2mm resolution.
W15-Rain-Pole	Rain Gauge Mounting Bracket for 50mm (2") Diameter pole.

Manual

MAN-243	Modem Logger
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