rst INSTRUMENTS

Monitor with Confidence

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RST Instruments Ltd.
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ISO 9001
Certified System

PRODUCT CATEGORY:
READOUTS + DATA LOGGERS

FlexDAQ Data Loggers

Ideal for remote monitoring in both common and demanding geotechnical conditions, RST FlexDAQ Data Loggers offer precise measurement and reliable data acquisition from various sensor types and gauges including vibrating wire, thermistor, MEMS (analog and digital), Tensmeg, linear potentiometer, strain gauge, LVDT, TDR, etc.

The 4 main FlexDAQ models are the CR6, CR300, CR800, and CR1000X. All offer extreme flexibility in their design configurations and are custom made to accommodate a variety of sensor types as they pertain to the parameters of your project. The framework for building a FlexDAQ Data logger is dependent on the type, number, precision, and speed of measurements required. Best of all, FlexDAQ Data Loggers arrive to you completely pre-assembled, pre-wired, pre-tested, and pre-programmed; ready to be put to work straight out of the box with minimal set-up.

All FlexDAQ Data Loggers bear similarities in measurement and programming capabilities and can easily incorporate additional sensor and telecommunication options.

CR6 FlexDAQ Data Logger (with optional wi-fi) in a weatherproof enclosure with RST Flexi-Mux Multiplexers.

READY TO RUN
flexDAQ DATALOGGERS
pre-assembled
pre-wired
pre-tested
pre-programmed

> APPLICATIONS

Remote data logging of various types of geotechnical instrumentation used in dams, tunnels, bridges, mines, and natural slopes.	Alarm triggering when movement reaches a preset critical rate or levels reach a present value.
Real time data logging and analysis.	

> FEATURES

Immediate functionality straight out of the box - "Ready to Run".	Weatherproof housing available.
Pre-assembled, pre-wired, pre-programmed and pre-tested.	
Flexible data logger configurations made to exact customer specifications.	

Multiplexers, such as the RST Flexi-Mux (see reverse) may be added to augment measurement and control capabilities that include:

Adding extra sensors that can be monitored by the data logger (RST Flexi-Mux).	Providing non-volatile data storage and on-board battery-backed clock.
On-board data processing.	Initiating measurement and control functions based on time or event.
Controlling external devices such as pumps, motors, alarms, freezers, valves, etc.	Using PC support software or keyboard/display to program.
Operating independently of AC power, computers, and human interaction.	Consuming minimal power from a 12 Vdc source.

Interfacing with on-site and telecommunication devices such as cellular modems, radio transceivers, Wi-Fi routers, satellite transmitters, and ethernet interfaces. See diagram on reverse.

CR300 FlexDAQ Data Logger shown with optional cellular modem for data communication.

ORDERING INFO

ITEM	PART #	
CR6	ELGL1206	NOTE: Due to the customizable nature of each FlexDAQ Data Logger model, specifications can vary greatly in accordance to customer specifications and optional additions. Please contact RST Instruments Ltd. for complete information.
CR300	ELGL1430	
CR800	ELGL1300	
CR1000X	ELGL1200	
Flexi-Mux Multiplexer	ELGL2042	

> BENEFITS

✓ **Increase Productivity**

✓ **High Reliability**

✓ **Custom Options**

✓ **High Accuracy**

✓ **Technical Support**

✓ **Increase Safety**

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SPECIFICATIONS + ORDERING
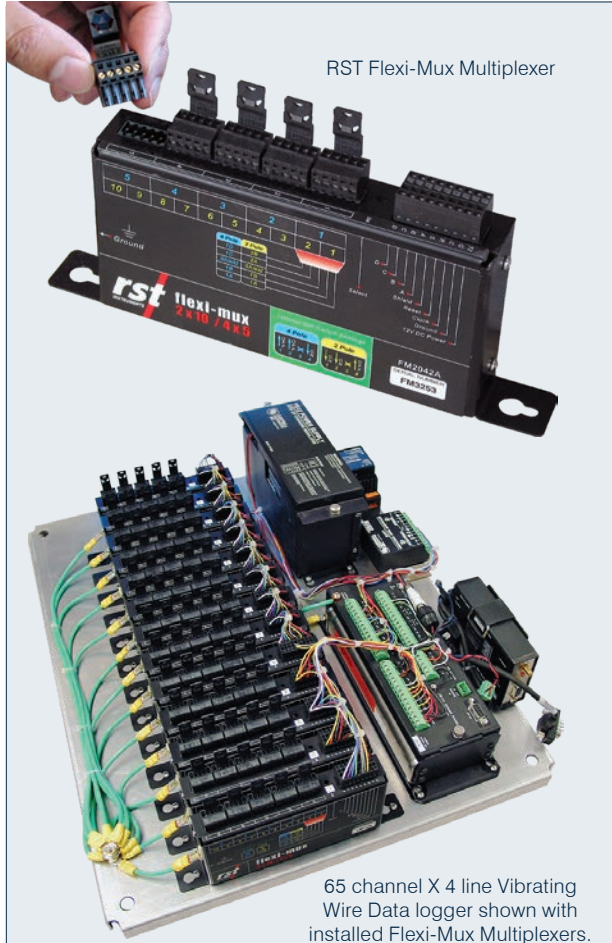
RST Flexi-Mux Multiplexer

65 channel X 4 line Vibrating Wire Data logger shown with installed Flexi-Mux Multiplexers.

Flexi-Mux

The RST Instruments Flexi-Mux allows a single channel of data loggers, such as the Campbell CR1000X, 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.

The extremely slim and compact (8.15"H x 1.05"W x 3.17"D) vertical design permits the Flexi-Mux to occupy minimal space in the control box which allows for more Flexi-Mux units to be installed. By utilizing a unique cascade feature, there is theoretically no limit to the number of channels which can be connected to the data logger.

Conveniently designed detachable screw terminals allow rapid wiring of large systems, with straightforward testing and substitution of both sensors and multiplexers. Built-in transient protection on every line safeguards against damage which can be caused by occurrences such as nearby lightning.

The Flexi-Mux requires only 2 data logger control ports; one for "enable" (Reset terminal), and a second for channel stepping (Clock terminal). The Flexi-Mux is compatible with most sensors including load cells, pressure transducers, vibrating wire sensors, thermistors, potentiometers, and numerous other specialty sensors.

FLEXI-MUX SPECIFICATIONS

ITEM	DESCRIPTION
Power	12 Vdc (under load), unregulated
Current Drain	10μ quiescent; 8 mA active
Reset Active Levels, max.	2.0 V
Clock Active Levels, max.	2.0 V
Min. Clock Pulse Width	1 ms
Max. Actuation Relay Time	20 ms
Relay Operation	Break before make
Initial Relay Resistance, max.	0.1 Ohm
Max. Switching Current	1 A
Min. Contact Life	10^7 closures
Operating Temp.	-40°C to 70°C (-40°F to 158°F) - extended
Size	8.15"H x 1.05"W x 3.17"D
Weight	0.24 kg (0.53 lbs.)

COMMUNICATION METHODS

flexDAQ DATALOGGERS