



CR6 FlexDAQ Data Logger shown in a weatherproof enclosure with Flexi-Mux Multiplexers.



CR1000 FlexDAQ Data Logger variation.



RST's Flexi-Mux Multiplexer can be used for increasing the number of sensors.

	PRODUCT CATEGORY:
	READOUTS + DATA LOGGERS

READY TO RUN

pre-assembled
pre-wired
pre-tested
pre-programmed

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, digital MEMS, linear potentiometer, strain gauge, Linear Variable Differential Transformer (LVDT), and time-domain reflectometer (TDR).

RST FlexDAQ Data Loggers offer extreme flexibility in design configurations and are custom-made to accommodate a variety of sensor types specific 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.

> 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 pre-set critical rate or levels reach a present value.
Real time data logging and analysis.	

> FEATURES

Out-of-the-box functionality and "ready to run".	Available weatherproof housing.
Pre-assembled, pre-wired, pre-programmed and pre-tested.	Flexible configurations made to your specifications.
Dynamic and static data logging capabilities.	

Multiplexers, such as the RST Flexi-Mux (see photo below left, separate brochure available), and/or SDM devices may be added to augment measurement and control capabilities that include:

Adding extra sensors that can be monitored by the data logger.	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, and valves.	Using PC support software, keyboard or 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 telephone modems (including cellular and voice-synthesized), short haul modems, radio transceivers, satellite transmitters, and ethernet interfaces.

> BENEFITS

✓ Increase Productivity	✓ High Accuracy
✓ High Reliability	✓ Technical Support
✓ Custom Options	✓ Increase Safety

FlexDAQ Data Loggers



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READOUTS + DATA LOGGERS

SPECIFICATIONS + ORDERING

Due to the customizable nature of FlexDAQ Data Loggers, specifications can vary greatly depending on your requirements. Contact RST Instruments for complete information on options such as solar panel, battery, cell modem, cellular plans, RSTAR frequency (from 900 MHz to 2.4 GHz depending on country), and mounting types.

FlexDAQ Data Loggers can be customized with an assortment of features, including, but not limited to the following:

Fit up to 10 Flexi-Mux in a 20"x16"x8" enclosure.	Connect analog and digital sensors (4-20mA, Voltage, SDI12, MODBUS, voltage differential/single ended)
Set alarms to send notifications from remote locations	Monitor slope, earthquake, and weather, etc.
Take static and dynamic readings from 20Hz to 333Hz. Note that 200Hz+ dynamic readings may be limited depending on complexity of the project.	Use solar panel or battery with either satellite or cellular modem (with available data plans) for remote monitoring. Note: Two-year data plan is available on certain RSTAR hubs and FlexDAQ loggers with cell modem options.
Retrieve data easily with scheduled retrieval, forwarded through FTP.	Retrieve data from multiple RSTAR DT Loggers with a fixed interval.

FlexDAQ Data Loggers and RSTAR hubs are pre-programmed, ready to run and come with accessories including antenna, cables, and batteries. RSTAR hubs are compatible with RST DT loggers. To upgrade existing RST DT loggers, contact RST with the serial numbers so the hub can be programmed accordingly.

Along with fully-customized options, RST also offers the following standard FlexDAQ loggers and RSTAR hubs for quicker delivery.

AVAILABLE CONFIGURATION OPTIONS

Available standard design options include hardware to monitor following sensors through ethernet or cellular on AC, low or high solar and battery capacity and different mounting options such as wall mount and 1.5", 2" and 2.5" pole mount.

Up to 10 direct-wired vibrating wire instruments with thermistors	Up to 10 direct-wired IPI or tiltmeter strings
Single direct-wired ShapeArray	DT loggers via RSTAR wireless communication

STANDARD FLEXDAQ DATA LOGGERS			STANDARD RSTAR HUBS		
PART NUMBER	MONITORING CAPACITY	STANDARD FEATURES INCLUDED	PART NUMBER	MONITORING CAPABILITY	STANDARD FEATURES INCLUDED
ELGL2168-M1H	Monitor up to 10 vibrating wires directly	Cellular communication, external 100Ah battery, 90W solar panel	ELGL2168-S2A	Monitor DT loggers wirelessly	Cellular communication, 7.2Ah battery, AC power
ELGL2168-M1L	Monitor up to 10 vibrating wires	Cellular communication, 24Ah battery, 50W solar panel	ELGL2168-S2H	Monitor DT loggers wirelessly	Cellular communication, external 100Ah battery, 90W solar panel
ELGL2168-M4H	Monitor up to 10 in-place inclinometers (IPI) or tilt meter strings directly	Cellular communication, external 100Ah battery, 90W solar panel	ELGL2168-M6L	Monitor DT loggers wirelessly with barometer	Cellular communication, 24Ah battery, 50W solar panel
ELGL2168-M4L	Monitor up to 10 in-place inclinometers (IPI) or tilt meter strings directly	Cellular communication, 24Ah battery, 50W solar panel	ELGL2168-S6A	Monitor DT loggers wirelessly with barometer	Cellular communication, 7.2Ah battery, AC power
ELGL2168-S5H	Monitor one string of ShapeArray directly	Cellular communication, external 100Ah battery, 90W solar panel	ELGL2168-S6H	Monitor DT loggers wirelessly with barometer	Cellular communication, external 100Ah battery, 90W solar panel
			ELGL2168-M3A	Monitor DT loggers wirelessly in addition to up to 10 vibrating wires directly	Ethernet communication, 7.2Ah battery, AC power
			ELGL2168-M3L	Monitor DT loggers wirelessly in addition to up to 10 vibrating wires directly	Ethernet communication, 24Ah battery, 50W solar panel
			ELGL2168-M2L	Monitor DT loggers wirelessly in addition to up to 10 vibrating wires directly	Cellular communication, 24Ah battery, 50W solar panel