



MICRO-MINIATURE DATA ACQUISITION RECORDER

MICRORECORDER™

INVOCON, INC.

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MicroRecorder is a data acquisition unit that measures and stores data for post-acquisition download to a PC. Over one month of data (at one sample per minute) can be recorded on internal non-volatile memory. Each unit has one external input channel from a resistive sensor and an internal temperature channel. Each unit has a programmable acquisition initiation time and programmable sample rate.

The external resistive device can be one of many different resistive sensor types: temperature, strain gage, humidity sensor, pressure sensor, etc.

Post-acquisition download is through a special interface cable to a standard RS-232 port on a PC. A Graphical User Interface (GUI) provides programming, graphical data representation, and downloading functionality.

MicroRecorders with an external Resistive Thermal Device (RTD) sensor has flown multiple times starting with STS-100 in 2001 to measure the actual temperature extremes experienced by specific Shuttle electronics.

Specifications

DATA ACQUISITION RATE	Programmable via Interface Cable: 1 sample per second to 1 sample per hour
EXTERNAL SENSOR	Optional full-bridge completion configuration; 1.2V excitation; 24-bit A/D; factory programmable gain and filter parameters.
INTERNAL TEMPERATURE	10-bit A/D with 0.25°C resolution; Full scale -35°C to 85°C.
POWER	Battery powered; 2.8-3.6V input range.
OPERATING TEMPERATURE RANGE	-35°C to +85°C (Reduce battery life by 50% when continuous operation at -35°C.)
BATTERY LIFE	Standard internal battery: 1 year @ 1 sample/min. <i>Other capacities are available.</i>
MEMORY	Can store 43,500 samples on non-volatile memory (over one month at 1 sample/minute).
PACKAGING	Snap enclosure with replaceable internal battery. Ruggedized housing with non-replaceable internal battery (pictured). 3.3cm x 3.3cm x 1.5cm replaceable battery unit.
SENSOR TYPES	MicroRecorder can accommodate strain gages, RTDs, pressure sensors, humidity sensors, accelerometers, or any other sensor with an active resistive element.

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System specifications subject to change without notice.
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