

# MSFM MULTI-CHANNEL GPRS DATA LOGGER

AN ENERGY EFFICIENT, RELIABLE GPRS DATA LOGGER ENABLING REAL-TIME INFORMATION TO BE ACCESSED FROM ANYWHERE, AT ANY TIME.

## HOW IT WORKS

The data logger has the capacity to acquire measurements from a variety of sensors and transmit them via GPRS. Data is transmitted to Detectronic's cloud-based data portal which is well equipped with a powerful suite of online data collection, monitoring, analysis and reporting tools.



## KEY FEATURES

- Suitable for use worldwide.
- 8 channels configurable for analogue or digital inputs.
- High accuracy clock with 100 seconds per month maximum error over operating temperature range and option to synchronise to GSM network for greater accuracy.
- Full duplex, asynchronous local serial ports.
- Low power design provides typically > 5 years battery life.
- Rugged, portable and waterproof to IP68.
- WITS compatible and verified.
- Military grade connectors, compatible with MIL-C-26482.
- Advanced threshold and profile alarms on each channel with option to update data on alarm and more frequently thereafter.
- Direct cable or optional 8-channel interface wiring for simpler and easier connection.

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## TECHNICAL SPECIFICATIONS

### INPUTS

Configurable for up to eight digital or analogue inputs; supporting 12v flash powering

### OUTPUTS

Two independent digital outputs for external power control and alarm signalling (0 and 3 volt levels, active low, 100k output impedance) or two individually switched 12 Volt outputs for powering 4-20mA loops

### ELECTRICAL INPUTS

Configurable channel strategies : Voltage, event, tamper / status, count, frequency and encoder  
Digital: Pulses counted over, and recorded at, pre-set intervals. Tamper/status and event time supported

Frequency input: Switch closures or logic pulses, maximum frequency 16 kHz, programmable sampling period

Analogue: 0 - 2.5V, 0.01V resolution as standard, <1mV with 8 channel option

### MODEM

Integral antenna: Optional external antenna – Support for cellular communication

SIM: User replaceable SIM card

### DATA TRANSMISSION

Type: Cellular communications

2G/3G/LTE-M1/NB-IoT communication (worldwide compatibility)

Interval: 1 min to 1 month at programmable date and time – WITS option (factory configured)

### MEMORY

Size: 512K, allocable between channels as

required (max 64K per channel)

Type: Solid state, non-volatile

### CLOCK

Type: Crystal controlled calendar clock with leap year adjustment

– Option to synchronise clock to local network at regular intervals

### SUPPLY

– User replaceable Internal lithium battery pack, typical battery life > 5 years depending on mode of use

– Replaceable high capacity external lithium battery pack, for more frequent data (up to 15 mins)

### RECORDING

Interval: Programmable between 1 sec - 1 hr

Data storage: Rotating store or store until full

### ALARM DIAL-OUT

– 4 threshold and profile alarms per channel, with hysteresis and persistence, independently configurable on each channel

– Option to update data on alarm and more frequently thereafter

### ENVIRONMENTAL

Operating ambient temperature: -20°C to +50°C

Ingress protection classification: IP68 (submersion at 1m depth for 24 hours)

### MECHANICAL

Dimensions (mm): 149 x 146.5 (h) Weight: 0.750kg

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