

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.

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KEY FEATURES

GPRS MODEM QUAD BAND

900MHz, 1800 MHz / 850MHz, 1900MHz - integral antenna.

CLOCK

Crystal controlled calendar clock with leap year adjustment.

Accuracy: 100 seconds per month maximum error over operating temperature range.

Synchronisation: option to synchronise clock to GSM network for greater accuracy.

RECORDING

Logging interval: programmable between 1 second and 1 hour.

Data storage: rotating store or store until full.

ENVIRONMENTAL

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

Protection classification: IP68
(submersion at 1m depth for > 24 hours).

LOCAL SERIAL PORT

Full duplex, asynchronous.

Data rate: 1200, 2400, 4800, 9600 bps
diagnostics.

SUPPLY

Internally powered by a user-replaceable lithium cell (internal back up cell maintains logging and local communications when main battery pack is discharged).

Typical battery life:
>5 years, depending on mode of use.

ALARM DIAL-OUT

High/low threshold alarms with option to update data on alarm and more frequently thereafter.

Optional profile alarms can be set when sufficient historical data is available.

CONNECTORS

Military specification, compatible with MIL-C-26482.

WIRING OPTIONS

Direct cable or optional 8-channel interface for simpler and easier connection.

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TECHNICAL SPECIFICATION

INPUTS

NUMBER OF CHANNELS	8.
CHANNEL TYPES	Voltage, analogue, event, state, count, frequency (independently selected on each channel).
INPUT IMPEDANCE	>300k.
INPUT PROTECTION	Protected against reverse connection and over voltage.
VOLTAGE INPUT	Range 0 to 2.5 volts, 0.0002 volt accuracy and resolution.
ANALOGUE INPUT	Range 0-20 mA or 4-20 mA, 0.002 mA accuracy and resolution.
EVENT INPUT	Switch closure or logic pulse, date and time of event stored. Resolution 1 second or 10 seconds.
STATE INPUT	Switch closure or logic state. On state change, date, time and new state are stored. Resolution 1 second or 10 seconds.
COUNT INPUT	Switch closures or logic pulses, maximum rate Channel 1, 4, 5, 6, 7, 8 = 10 per second, Channel 2 and 3 = 45 per second (counted over and recorded at preset intervals). 16,000 maximum per logging interval.
FREQUENCY INPUT	Switch closures or logic pulses, maximum frequency 16 kHz, programmable sampling period of 1 to 250 seconds, independent of recording rate. Resolution 0.01% maximum.

OUTPUTS

2 INDEPENDENT DIGITAL OUTPUTS	For transducer power control and alarm signalling (0 and 3 volt levels, active low, 100k output impedance).
1 FIXED OUTPUT	For 'open collector' signal bias (3 volts, 33k output impedance).

Detectronic Limited
Regent Street
Whitewalls Industrial Estate
Colne
Lancashire BB8 8LJ
United Kingdom

+44 (0)1282 449 124
sales@detectronic.org
www.detectronic.org

www.detectronic.org