

# in4mA METRON

Monitor your equipment,  
wherever you are,  
wherever your equipment is!

- Low cost affordable telemetry
- Web based data access
- Quick and easy installation
- Complete end to end solutions



New battery powered remotely programmable GSM/GPRS/SMS telemetry unit with 4 inputs (configurable to be analogue or digital) that can send alarm messages directly to your mobile phone by text message, report periodically to a mobile phone, or our internet server, or both.

Utilising the latest microprocessor technology coupled with state of the art GSM engineering, the new IN4MA provides the most economical solution for remote telemetry with the added advantage of being self powered, to ease installation and maintenance.

The use of GSM (mobile phone) as the means of communications means there is no need to install a phone line, making the system flexible, portable and removes the need for customer interaction.

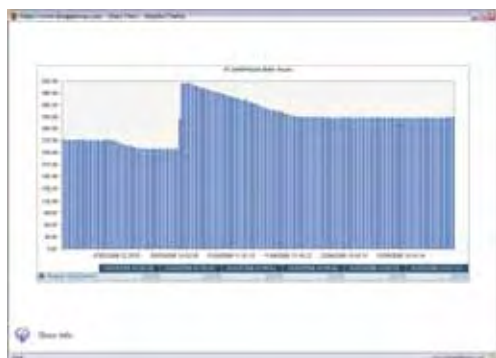
Information and alarms can be sent by text message, gsm data call or by GPRS and viewed on either your mobile phone or on the internet via a secure username and password.

The unit can be programmed locally or remotely. When local the user has a series of pushbuttons and an LCD display making the process very quick and easy - there is little training involved.

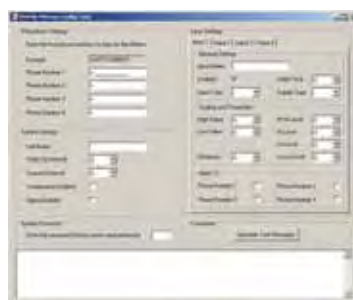
## The IN4MA metron includes sensor excitation

- Monitor your assets from anywhere in the world
- Integral Programmable Processor
- 4 inputs, programmable to be analogue or digital
- Data sent periodically or on alarm
- Battery powered- typical life in excess of 5 years
- Graphical display to help with configuration
- Tri band GSM for global operation
- Data sent directly to your mobile phone
- Data can be viewed on the internet

Digital inputs:	volt free contact
Analogue inputs:	0-5 volts, 0-10 volts, 4-20mA, 10 bit resolution
Integral battery:	5 year life typically
Sensor excitation:	21 or 3.6 volts, at 200mA max
Alarms:	On change of state of digital, 4 analogue thresholds per channel.
Transmission interval:	User programmable
Local programming:	Via pushbutton with integral LCD display
Remote programming:	By text message
Web based data:	Via secure username and password
Text message:	Upon alarm or periodically
Dimensions:	Enclosure 180 x 130 x 76 mm Backplate 140 x 115 mm



Analogue trends can be shown on the internet



PC based software to simplify configuration

# Specification

## Form Factor

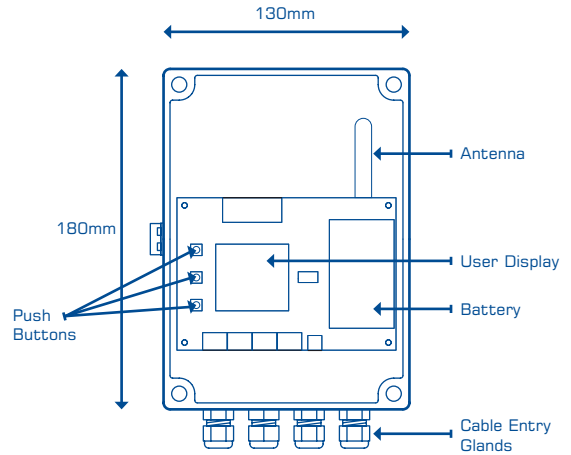
Enclosure: IP67 rated, Polycarbonate  
Dimensions: 180 x 130 x 76 (mm)  
Weight: ~ 0.7 Kg

Operating Frequency: 900/1800/1900Mhz  
Power: IN4MA brand battery only  
Battery life: > 5 Years in typical applications  
Transducer excitation: 21 volts (when set for analogue input) @ 200mA (max)

## Environmental

Temperature: -20 to +45 °C  
Humidity: 20 to 80% non-condensing

## Connections & Dimensions



## Modes of operation

Normally the unit will be 'asleep' with just the processor running. The Processor will wake up various components as and when required. For example, the processor will provide an excitation voltage of 21 volts to sensors before taking a reading – the length of time the processor gives for a sensor to settle to an accurate reading is configurable. The processor will also provide a wetting voltage of 3.6 volts for digital signals as and when required. When the Metron needs to communicate over the mobile phone network it will power up the GSM module and communicate with it as required. Whilst the modem is powered up it can also receive messages for changes in configuration. The LCD display shows the actions the Metron is performing.

The Metron will send text messages to your mobile phone or can report to an internet based data presentation and alarm handling 'gateway.' Units can send messages periodically and/or on alarm. The Metron is GPRS capable.

## Power Consumption

The integral battery has a capacity of 14.5 AH @ 3.6 volts. In sleep mode the Metron draws a miserly 50 microamps. Performing additional functions, such as powering up a transducer, will drain the battery. Normally the biggest drain is powering up the GSM modem.

## Configuration

The Metron can be remotely programmed by sending text messages, from either a mobile phone or from a pc with a gsm modem attached. The Metron will only receive the configuration messages when the GSM module is powered up. There is a free of charge windows based configuration tool available to simplify this process. You can also use the pushbuttons to change certain parameters, such as alarm thresholds and analogue scaling factors, locally.

## Excitation

The Metron will power the sensors normally with 21 Vdc or 3.6 Vdc at a maximum of 200 mA.

## Inputs

The 4 inputs are individually configurable to be 0-10 volts or 4-20mA. To configure the inputs you must adjust both the DIL switch on the unit and the configuration. For digital inputs set the system as 0-10 volts.

## Quick and Easy Installation

The pushbuttons allow easy navigation of the menu system, so you can view the phonebook, the signal strength, the input values, the scaling and the alarm settings

The Metron meets the R&TTE and CE directives, and has been suitably tested and approved – please ask for further details.

