

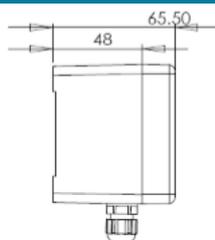
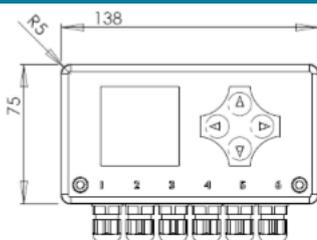
Metron2/SSM Fact sheet

Battery Powered Metron2

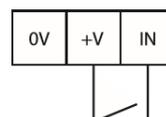


Parameter	Details	
Inputs	4 (4-20mA, 0-10Vdc sensors or volt free contacts)	
Communications	Integrated GSM (GPRS or SMS)	
Power supply	Internal battery supplied with unit. Replacements available from Powelectrics.	
Sensor excitation	Gives power to sensors (5V or 21.6V, 31mA max) for a programmable length of time.	
Environmental	IP67, -20 to +65 deg C.	
Current Consumption	When asleep (screen off / modem off)	110uA
	When powering sensors	50mA typically (display is on)
	When transmitting	50mA for 160 seconds typically
Battery life	Depends on regime. More frequent transmissions will shorten the battery life alot. More frequent readings will shorten the battery life a little. Some sensors need longer to reach a stable reading (settling time). A weak signal or cold temperatures will also shorten the battery life. Typical life is 4 years if powering a 2 wire 4-20mA sensor for 2 seconds and transmitting once per day.	
Replacing the battery	Open the lid (via the allen screws). The battery is secured by 2 velcro straps. Only use Powelectrics approved batteries and be sure to close the lid properly again..	
Programming	Remotely from MetronVIEW. Locally via USB (Windows software free of charge from Powelectrics. Mini USB not provided by Powelectrics).	

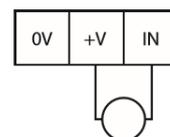
The Metron2 only switches on the parts of the system when it needs to, so most of the time the display, the GSM modem and the sensors will be switched off. At a programmable time interval (the wakeup or transmit intervals) the unit will bring on the screen, apply power to the sensors (one at a time and each one for the duration of the 'settling time'), scale the readings and if required transmit them. You can set 10 rising and 10 falling alarms for each sensor, as well as the units of measure and many other parameters.



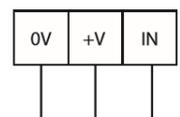
Volt free contacts



4-20mA 2 wire sensor that requires power



0-10 Volt DC 3 wire sensor



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Metron2
Telemetry that makes sense

Metron2 Quick Install Guide

How does it work?

You can program the Metron2 to work in different ways - under 'system' there is the 'modem power scheme.' Unit can switch off everything or it can keep the modem on so it can receive 'polls.' The configuration effects current consumption and therefore battery life.

Unit asleep Screen & GSM off

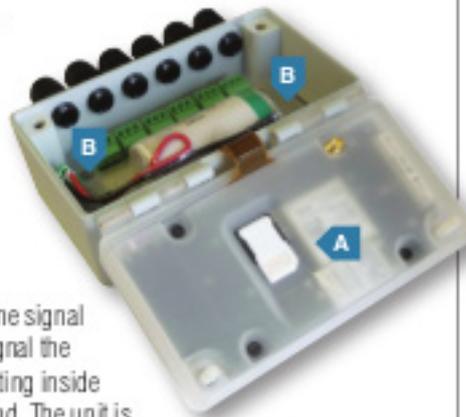
The real time clock is counting time and wakes the device up depending on how it is programmed.

Wake up interval - powers the sensors and takes readings

10 high alarm thresholds and 10 low alarm thresholds for each of the 4 channels - if threshold breached then it transmits immediately

Transmit interval (or upon alarm) it powers up the GSM engine

Readings & alarms are sent via GSM/GPRS



B Mounting

The unit needs a mobile phone signal to work - the stronger the signal the better so try and avoid mounting inside metal cabinets or underground. The unit is weather-proof but you need to make sure the glands are tight; that if no cable is going through a gland that you fit the blanking plugs and you fit the blanking plugs over the fixings inside the device.

A Sim Card

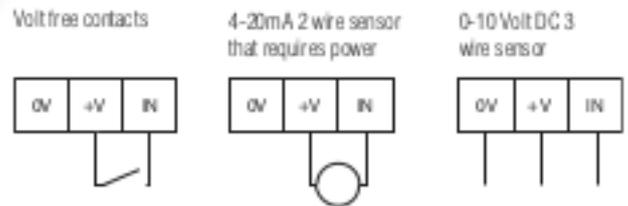
Make sure it has credit, doesn't need a PIN code & there is network coverage where you plan to use it.

Antenna

The Metron2 has an integral antenna but if your signal is poor then either move the Metron2 or fit an external antenna using the SMA connector, running the cable out through a gland. Select external antenna via menu or set in the configuration.

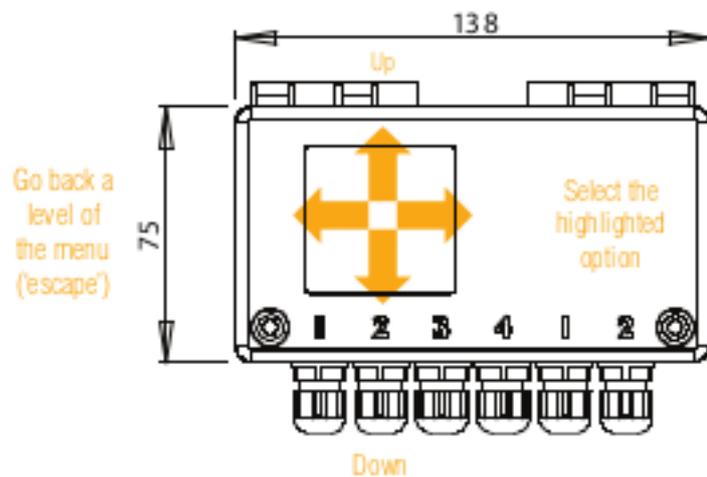
Connect Sensors

Run the cable through the glands & tighten. Unplug the green connectors and wire in as required.



Using The Menu

With the power connected press one of the buttons if the display is not on to 'wake the unit up.' Enter the PIN (default = 1234) followed by the right arrow. Navigate around the menu. Use the menu to check signal strength, look at inputs, check the configuration and much more.



Programming

You can program locally using a Windows PC/laptop and a mini USB cable (neither supplied). The programming software is available free of charge from sales@powelectrics.co.uk (include the serial number of your device in the request). The USB driver will need to be installed, the software closed and the Metron2 device in sleep mode before connection of the USB cable. Once connected, wake up the device by pressing a button and then open the software and scan ports for Metron2. Once you have written your configuration then save it and download (using 'program device').

You can program remotely by creating the text strings using the programming software and copying to clipboard. These text commands can be sent line by line either by SMS or GPRS (depends on your sim card and software collection platform). Remember your device may normally be 'asleep' with the modem powered off so commands will only be processed when the modem wakes up (either because it is configured to periodically or someone can request via the menu (system -> get config/signal)).