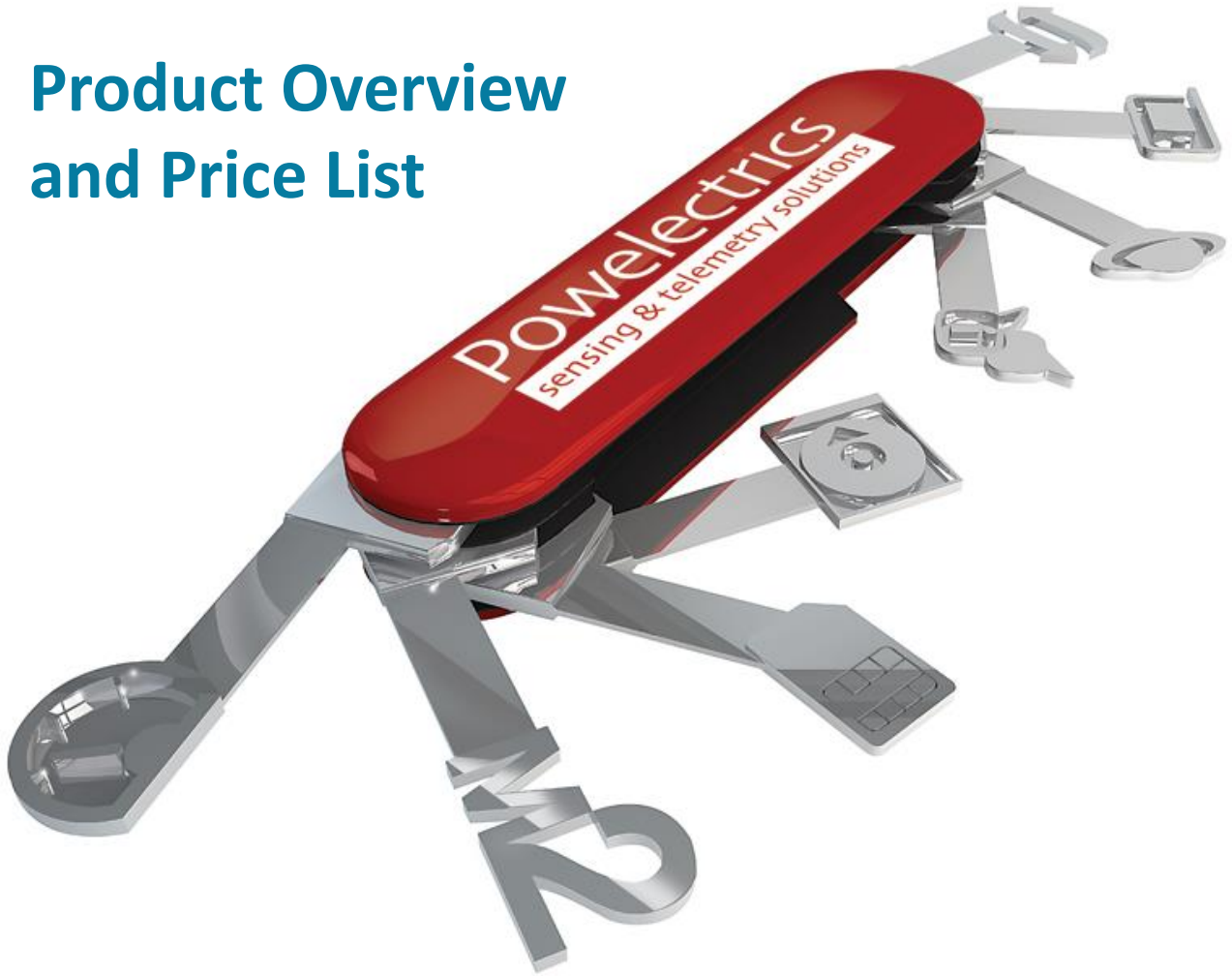


## Product Overview and Price List



## Your Complete Telemetry Toolkit



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# Powelectrics

## sensing & telemetry solutions

Powelectrics supply equipment and solutions for monitoring, control and automation to a wide range of industries. Sensing & telemetry benefits all areas of business. Powelectrics are able to provide systems that are affordable & flexible, bringing down the total solution cost and opening up new applications.

Innovative & award winning hardware, coupled with a wide range of communication and data collection solutions means that Powelectrics have the answer for you with decades of experience and proven capabilities you can trust. Powelectrics deliver affordable, reliable telemetry and M2M solutions.

**Wherever you are, wherever you equipment is, we have hardware, communication and software solutions to suit your needs.**



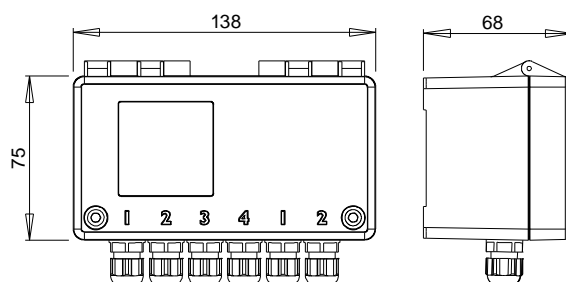


**Powelectrics**  
sensing & telemetry solutions

The Metron2 is a self contained telemetry device, housed in an IP67 weatherproof enclosure with an integral GSM/GPRS modem. It can be powered from an internal battery or by other means and periodically provides power to sensors to take readings, transmitting them at user defined intervals and on alarm. Powelextrics have a hosted data collection service, Metron VIEW, enabling you to view data via the internet and to receive alarms by email. For those with existing platforms or the skills to develop their own platform the protocol can be shared.

The built-in display allows the unit to be used as a local display/gauge. The device can be programmed both locally and remotely.

Inputs	4 (4-20mA or 0-10V)
Power supply	Integral battery or 6-24Vdc
Sensor Excitation	5V or 21.6V
Environmental	IP67. -25 to +60 deg C



Part number	Description	List price
METRON2/S	4 analogue inputs/digital, 6-24Vdc powered, IP67 weatherproof enclosure & integral display. Built in GSM modem for GPRS or SMS communications, integral antenna	£333.90
METRON2/SSM	4 analogue inputs/digital, integral 3.9 volt battery, IP67 weatherproof enclosure & integral display. Built in GSM modem for GPRS or SMS communications, integral antenna	£362.90
METRON2/S/2RE	4 analogue inputs/digital, 6-24Vdc powered, 2 relay outputs, IP67 weatherproof enclosure with integral display. Built in GSM modem for GPRS or SMS communications, integral antenna	£356.16
METRON2/SSM/2RE	4 analogue inputs/digital, integral 3.9 volt battery, 2 relay outputs, IP67 weatherproof enclosure & integral display. Built in GSM modem for GPRS or SMS communications, integral antenna	£385.19
CPS758/F	Replacement Battery for METRON2/SSM parts	£29.00

Battery life for /SSM typically 3 to 4 years when taking readings and transmitting once per day. Different sensors will take lower to power up.



email: [sales@powelectric.co.uk](mailto:sales@powelectric.co.uk) tel: +44(0) 1827 310 666





## SOLAR POWERED

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Based on the Metron2/S, this package mounts the telemetry unit on a metal base plate, measuring 185.1 x 337.4mm and includes an additional enclosure which houses a lead acid backup battery, an intelligent regulator system and connectors, so you can wire in your sensors. The package also includes a 10 watt solar cell. In the UK, south of the Scottish border, the package can support transmissions every 10 minutes with a clear view of the southern sky is available (solar power varies with location so please check).

- Maximise battery life and solar charging potential.
- Pre-charge conditioning (if the battery is in poor condition – it helps to bring the battery back to life).
- Temperature compensation – the charge rate is adjusted according to the temperature of the battery. This means the battery is always charged at the optimal rate, maximising the battery life.
- Ability to monitor battery voltage on input4 of the Metron2 – switch selectable.
- LED indication (with test pushbutton) for battery status and DC in.



Part number	Description	List price
METRON2/S/SOL-SYS	4 analogue inputs/digital, solar powered (10w cell) with backup battery and regulator, on base plate (185.1 x 337.4mm), IP67 weatherproof enclosure with integral display. Built in GSM modem for GPRS or SMS communications, integral antenna	£556.50
METRON2/S/SOL-SYS/2RE	4 analogue inputs/digital, 2 relay outputs, solar powered (10w cell) with backup battery and regulator, on base plate (185.1 x 337.4mm) IP67 weatherproof enclosure with integral display. Built in GSM modem for GPRS or SMS communications, integral antenna	£578.76



12:34  
Settings  
Monitor  
Setup Wizard  
Force Transmit



## WITH ATEX BARRIERS

The Metron2 is not ATEX approved, however it is possible to use in certain ATEX applications if it is mounted in the safe area with suitable barriers fitted inbetween.

Part number	Description	List price (£)
M2/S/400300230/1/ATEX	Metron2 housed in 400 x 300 enclosure, mains powered with single ATEX barrier for a 4-20mA sensor	£745.00
M2/S/400300230/2/ATEX	Metron2 housed in 400 x 300 enclosure, mains powered with 2 ATEX barriers so 2 x 4-20mA sensors	£930.00
M2/S/400300230/3/ATEX	Metron2 housed in 400 x 300 enclosure, mains powered with 3 ATEX barriers so 3 x 4-20mA sensors	£1,115.00
M2/S/400300230/4/ATEX	Metron2 housed in 400 x 300 enclosure, mains powered with 4 ATEX barriers so 4 x 4-20mA sensors	£1,300.00

## EXTERNAL ANTENNA

T Shaped adhesive antenna with 2m of cable and fitting kit to each installation to Metron2 (gland needs to be larger)



8D4272/M2	External antenna with kit to ensure easy connection to Metron2	£36.22
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## JUNCTION BOX

To facilitate extension of sensor cables.



METRON JBOX	Compete with 2 glands and 1 breather	£23.90
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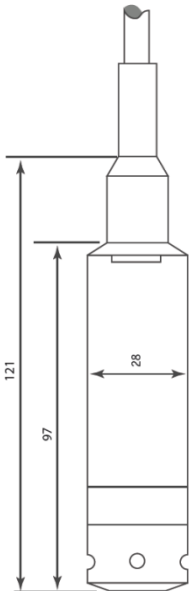




The SPS series of affordable level sensors suit a wide range of applications and offer simple installation and long term stability. Available in a variety of measurement ranges these sensors have a sturdy stainless steel body and use the well proven hydrostatic method of level measurement offering excellent accuracy at a very reasonable price.

The SPS sensor measures the pressure exerted by the column of liquid above it, compensating for the changes in atmospheric pressure via the vent tube. The device simply needs to be lowered to the bottom of the tank/river/reservoir in a secure way. It is important that water is not allowed to enter the vent as this could cause errors in the measurement.

Measurement Range	3, 5 or 10 metres H <sub>2</sub> O. Others on request
Overload Pressure	1.5 x rated pressure
Break Pressure	2.5 x rated pressure
Accuracy	+/- 2% of full scale across temperature range
Operating Temperature	-40 to +85 deg C
Housing	316L stainless steel
Sensing Element	Ceramic
Seals	FKM
Cable Material	PU
Sealant	Silicon rubber
Wetted parts	316L stainless steel & ceramic
Output Signal	4-20mA
Power Supply	12 to 30 Vdc
Load	(U-10)/0.02(Ω) >100kΩ
Insulation	>100M Ω@50V
Protection class	IP68
Response Time	10mS
EMC EMI: EN50081-1/-2; EMS: EN50082-2	



Part number	Description	List price (£)
SPS-3/5-SS-PUR	Hydrostatic level sensor, 2 wire 4-20mA output. 3m range / 5m cable	£190.00
SPS-5/10-SS-PUR	Hydrostatic level sensor, 2 wire 4-20mA output. 5m range / 10m cable	£215.00
SPS-10/15-SS-PUR	Hydrostatic level sensor, 2 wire 4-20mA output.. 10m range / 15m cable	£240.00







The Metron ATEX is a well proven, reliable cost effective ATEX approved telemetry device well suited to the LPG sector. Installation is quick and easy, with no intrusion to the customer's property. The multi channel unit can monitor up to 6 tanks which helps keep costs down on commercial installations where multiple tanks are commonplace. One important feature is battery performance. The Metron ATEX has a typical battery life in excess of 4 years, based on 1 transmission every day. The quickest payback is on industrial applications where predicting the consumption is difficult, so daily transmissions make offer a much better solution.

The unit is able to use GPRS for communications which lowers the operational costs compared to many other methods. The readings can be sent to Powelectrics Metron VEW server enabling you to view data via the internet and to receive alarms by email. For those with existing platforms or the skills to develop their own platform the protocol can be shared.

Number of Inputs: 6 (0-5 volts) with excitation supply to sensors of 5 v. Resolution: 10 bit.

Battery life typically > 4 Years. A battery is included.

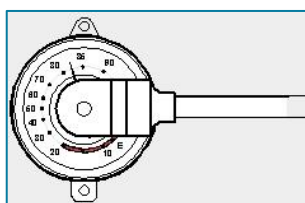
Connectors: 3 Pin 3.81mm Pitch / Sensor. Included.

Warranty: 24 Months RTB

IP67 rated enclosure measuring 130 x 80 x 75 (mm), polycarbonate , weighing c.0.7 Kg

Environmental: Temperature: -15 to +45 °C. Humidity: 20 to 80% non-condensing

Part number	Description	List price
Metron ATEX	6 analogue inputs, integral battery, ATEX approved	£333.90
R3D	Rochester gauge for LPG tanks, for use with the Metron ATEX (6320S81072E)	£30.00



Suitable for use with 'Rochester' type gauges with 0-5V output such as R3D (6320S81072E).







Telemetry that makes sense

**Powelectrics**  
sensing & telemetry solutions

Metron View enables you to view data from Metron2's, Metron ATEX's and other telemetry devices via the internet using your computer or smart phone. All you need is a browser and an internet connection and you can see recent and historical data, as well as export for use by other applications. Metron VIEW facilitates the remote programming of Metron2 devices.

Alarms can be forwarded by email (SMS is also possible – please ask). The data can be extracted using our standard API.

The solution is usually offered with sim cards. Pricing below covers all the countries within the EU. Solutions beyond this territory are available (please contact Powelectrics or your local distributor for further details.)



Part number	Description	List price
M-VIEW/EU/PAYU	Up to 24 transmissions per day (one per hour), includes sim card	£5.00
M-VIEW/ROAM_EU_5	Up to 144 transmissions per day (one every 10 minutes), includes sim card	£8.00



# APPLICATION EXAMPLES

## 1. SINGLE TANK LEVEL MONITORING TO HELP WITH RE-ORDERING

(for example diesel, adblue, screen wash, certain chemicals)

SPS level sensor and Metron2/SSM fitted to the tank.



Accurate  
Easy to install  
Any tank height  
Long battery life  
Low cost communications

Readings sent every 12 or 24 hours to Metron VIEW



Level readings viewed via the internet and smart phone. Alerts sent via email. 'Traffic light' web GUI helps to understand tank status quickly.



Extend cable using junction box and cable if necessary



- ✓ More efficient deliveries (fill when tank nearly empty).
- ✓ Never run out.
- ✓ No need to go out and dip tank.
- ✓ Data available centrally – stock takes, logistics etc.

### What's needed:-

Qty	Part	List price
1	SPS series level sensor. Choose range to suit tank	From £190
1	Metron2/SSM – battery powered Metron2	£362.90
1	M-VIEW/EU/PAYU – sim card and Metron VIEW (Europe only – elsewhere please check)	£5 per month
Optional	Metron JBOX to extend cable	£23.90
Optional	2401POHPD – cable (UV resistant, twisted pair, shielded)	£1.36 per metre



## APPLICATION EXAMPLES

### 2. MULTIPLE TANK LEVEL MONITORING TO HELP WITH RE-ORDERING

(for example diesel, adblue, screen wash, certain chemicals)

Up to 4 x SPS level sensors and 1 x Metron2/SSM fitted to the tank

Readings sent every 12 or 24 hours to Metron VIEW

Accurate  
Easy to install  
Any tank height  
Long battery life  
Multi tank – very affordable

Level readings viewed via the internet and smart phone. Alerts sent via email. 'Traffic light' web GUI helps to understand tank status quickly.

Extend cable using junction box and cable

- ✓ More efficient deliveries (fill when tank nearly empty).
- ✓ Never run out.
- ✓ No need to go out and dip tank.
- ✓ Data available centrally – stock takes etc.

#### What's needed:-

Qty	Part	List price
Multiple to 4	SPS series level sensor. Choose range to suit tank	From £190
1	Metron2/SSM – battery powered Metron2	£362.90
1	M-VIEW/EU/PAYU – sim card and Metron VIEW (Europe only – elsewhere please check)	£5 per month
Multiple to 4	Metron JBOX to extend cable	£23.90
Optional	2401POHPD – cable (UV resistant, twisted pair, shielded)	£1.36 per metre



# APPLICATION EXAMPLES

## 3. SINGLE TANK LEVEL MONITORING WITH THEFT ALERTS

(for example diesel, adblue, screen wash, certain chemicals)

SPS level sensor and Metron2 solar fitted to the tank



Accurate  
Easy to install  
Any tank height  
Very frequent data (10 mins)  
Low cost communications

Readings sent every 10 minutes to Metron VIEW



Level readings viewed via the internet and smart phone. Alerts sent via email. 'Traffic light' web GUI helps to understand tank status quickly.

Theft alerts if tanks level falls too quickly at specific times of day



Extend cable using junction box and cable if necessary

- ✓ More efficient deliveries (fill when tank nearly empty).
- ✓ Never run out.
- ✓ No need to go out and dip tank.
- ✓ Data available centrally – stock takes etc.
- ✓ Theft alerts
- ✓ Frequent accurate data – check when fills made

### What's needed:-

Qty	Part	List price
1	SPS series level sensor. Choose range to suit tank	From £190
1	METRON2/S/SOL-SYS – solar powered Metron2	£556.50
1	M-VIEW/ROAM_EU_5– sim card and Metron VIEW (Europe only – elsewhere please check)	£8 per month
Optional	Metron JBOX to extend cable	£23.90
Optional	2401POHPD – cable (UV resistant, twisted pair, shielded)	£1.36 per metre





# APPLICATION EXAMPLES

## 4. MULTIPLE TANK LEVEL MONITORING WITH THEFT ALERTS

(for example diesel, adblue, screen wash, certain chemicals)

SPS level sensor and Metron2 solar fitted to the tank

Accurate  
Easy to install  
Any tank height  
Very frequent data (10 mins)  
Low cost communications  
Multi tank – very affordable

Readings sent every 10 minutes to Metron VIEW

Level readings viewed via the internet and smart phone. Alerts sent via email. 'Traffic light' web GUI helps to understand tank status quickly.

Theft alerts if tanks level falls too quickly at specific times of day

Extend cable using junction box and cable if necessary

- ✓ More efficient deliveries (fill when tank nearly empty).
- ✓ Never run out.
- ✓ No need to go out and dip tank.
- ✓ Data available centrally – stock takes etc.
- ✓ Theft alerts
- ✓ Frequent accurate data – check when fills made

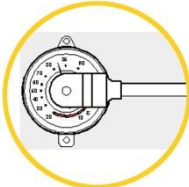
### What's needed:-

Qty	Part	List price
Multi	SPS series level sensor. Choose range to suit tank	From £190
1	METRON2/S/SOL-SYS – solar powered Metron2	£556.50
1	M-VIEW/ROAM_EU_5– sim card and Metron VIEW (Europe only – elsewhere please check)	£8 per month
Multi	Metron JBOX to extend cable	£23.90
Optional	2401POHPD – cable (UV resistant, twisted pair, shielded)	£1.36 per metre

# APPLICATION EXAMPLES

## 5. LPG TANK LEVEL MONITORING

Rochester gauge(s) fitted to the tank(s) and wired to Metron ATEX



Proven & Reliable  
Easy to install  
Long battery life  
Low cost communications  
ATEX Certified

Readings sent every 24 hours (typically) to Metron VIEW



Level readings viewed via the internet and smart phone. Alerts sent via email. 'Traffic light' web GUI helps to understand tank status quickly.



Extend cable if necessary using some locally sourced connectors

- ✓ More efficient deliveries (fill when tank nearly empty).
- ✓ Never run out.
- ✓ No need to go out and read gauge.
- ✓ Stronger client relationship

### What's needed:-

Qty	Part	List price
Multi	R3D Rochester Gauge	£30
1	Metron ATEX – battery powered	£333.90
1	M-VIEW/EU/PAYU – sim card and Metron VIEW (Europe only – elsewhere please check)	£5 per month



# APPLICATION EXAMPLES

## 6. METRON2 AS A GSM ALARM DIALLER

Metron2/S –  
power from 6 to  
24Vdc and  
connect up to 4  
volt free contacts



Readings sent every 24 hours  
(typically) to Metron VIEW  
as health check as well as upon  
alarm. Alarms forwarded by  
email.

Proven & Reliable  
Easy to install  
Low cost  
communications  
Centrally managed  
as option via  
Metron VIEW

OR...  
Use own sim and  
send alarms as  
SMS direct to up  
to 4 phone  
numbers



### What's needed:-

Qty	Part	List price
1	Metron2/S, 6-24Vdc powered Metron2	£333.90
1 (option for centrally managed)	M-VIEW/EU/PAYU – sim card and Metron VIEW (Europe only – elsewhere please check). Alerts sent by email	£5 per month

Receive alarms  
from your  
machines  
wherever you  
are, wherever  
your equipment  
is.





# APPLICATION EXAMPLES

## 7. AIR CONDITIONING MONITORING

Metron2/S –  
power from 6 to  
24Vdc, 2  
temperature  
sensors (inlet and  
outlet) and 1 flow  
sensor.



Readings sent every 10  
minutes to Metron  
VIEW. Data visible via  
web portal. Alarms sent  
by email.



Proven & Reliable  
Easy to install  
Low cost communications



### What's needed:-

Qty	Part	List price
1	Metron2/S	£333.90
1	LN 520 GA air flow sensor	£148
2	Duct mount temperature probes	~ £100
1	M-VIEW/ROAM_EU_5– sim card and Metron VIEW	£8 / month (Europe only – elsewhere please check)

- ✓ Early indication prevents damage to equipment, lost stock, downtime
- ✓ Filter blocked
- ✓ Fan fault

If needed we can supply suitable power supplies to give the Metron2 and LN 520 GA the 24Vdc they need. NOTE: LN 520 GA cannot be powered from the Metron2. Additional cable may be needed to facilitate installation.



12:34  
Settings  
Monitor  
Setup Wizard  
Force Transmit





# APPLICATION EXAMPLES

## 8. PUMPING STATION MONITORING

Metron2/S – power from 6 to 24Vdc and connect up to 4 volt free contacts:

- Pump 1 tripped
- Pump 2 tripped
- Power fail
- Wet well high



Readings sent every 24 hours (typically) to Metron VIEW as health check as well as upon alarm. Alarms forwarded by email.



Proven & Reliable  
Easy to install  
Low cost communications  
Centrally managed as option via Metron VIEW

OR...  
Use own sim and send alarms as SMS direct to up to 4 phone numbers



What's needed:-

Qty	Part	List price
1	Metron2/S, 6-24Vdc powered Metron2	£333.90
1 (option for centrally managed)	M-VIEW/EU/PAYU – sim card and Metron VIEW (Europe only – elsewhere please check). Alerts sent by email	£5 per month

Receive alarms from your machines wherever you are, wherever your equipment is.

