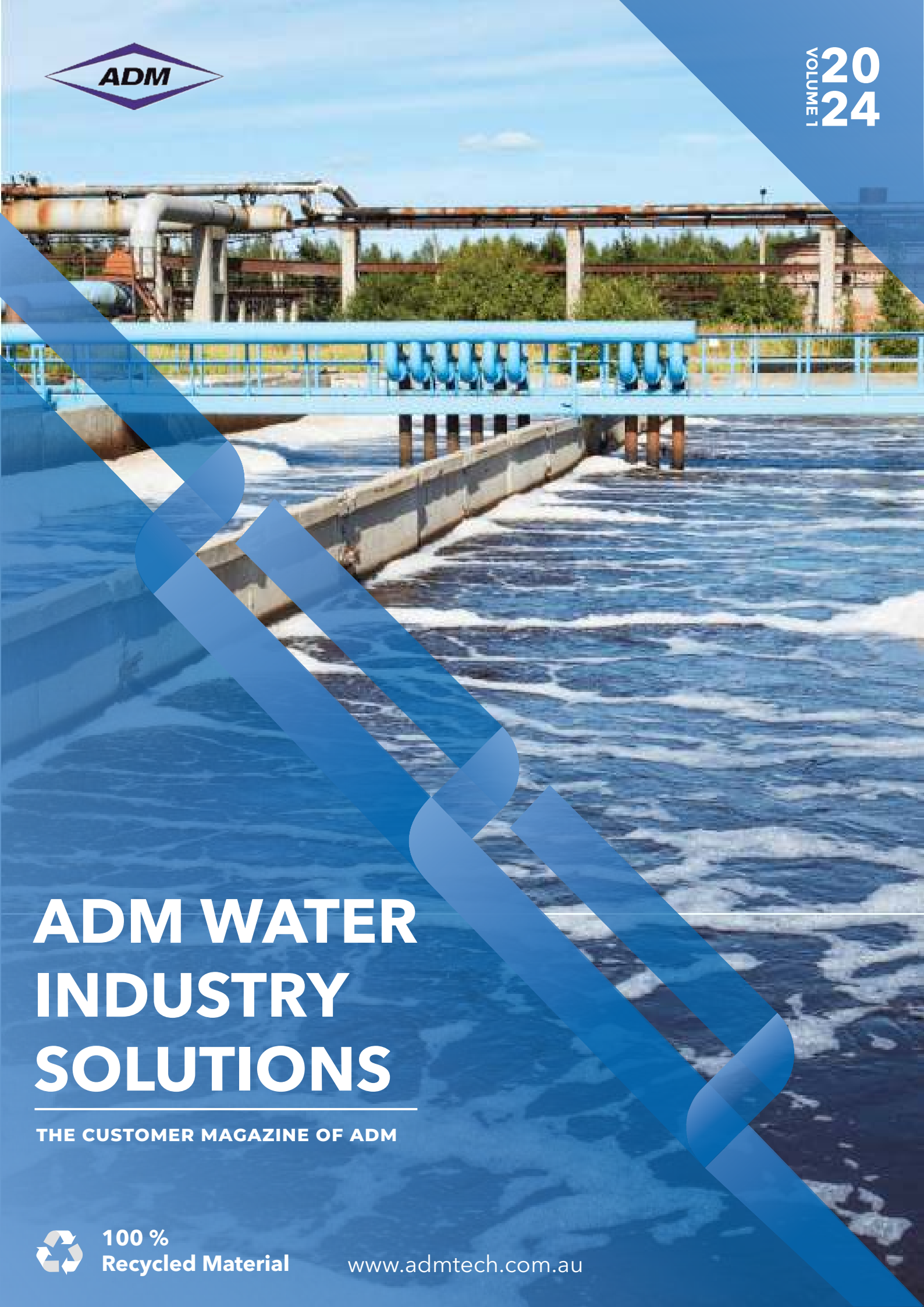

ADM

VOLUME 1
2024

ADM WATER INDUSTRY SOLUTIONS

THE CUSTOMER MAGAZINE OF ADM

100 %
Recycled Material

www.admtech.com.au

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About Us

What do we do

We support customers across Australia with products such as industrial power supplies, LED drivers, position sensors, pressure sensors, load cells, and encoders, supporting many different industries. Our customers include businesses in the industrial automation, medical and pharma, F&B, research and design, and even higher education, as well as lighting specialists and original equipment manufacturers.

But ADM is more than just a product supplier. We offer a wide range of services, delivered by ADM's highly dedicated and professional technical team.

But it doesn't stop at stocking and supplying products. We offer a wide range of services Australia wide, delivered by ADM's highly dedicated and professional technical team.

Because it matters to you.
We understand that it matters that you can quickly get a product to your door and that you need to also get that product to your door at a fair and reasonable price.
We understand that technical support matters, which is why we keep our technical team up to date with the latest product information.
We understand that you want to partner with a supplier that is focused on what matters to you.

Who are we

ADM Systems Pty Ltd is a family run group of businesses, first established by our Managing Director, Glenn Bates in 1986.

Since then we have grown to become Australia's largest distributor of MEAN WELL Power Supplies, Eurotherm Process Control and Data Management Solutions, Industrial Transducers and Sensors, PCA Encoders, Industrial Connectors, and Test & Measurement Instrumentation suitable for a wide range of applications.

ADM has a strong commitment to holding stock. This means you know the product is available when you need it. We also offer volume pricing and scheduled ordering to original equipment manufacturers, who need to order in high quantities, as well as convenient online ordering services for small scale enterprises and retail customers. Our technical staff undertake regular factory training and have close working relationships with our leading suppliers, so that they are up to date with the latest technologies available. This ensures you have the best performing position transducers, load cells, led drivers and all other components for your application.

Our Services

Rental / Loan of hand held test & measurement equipment

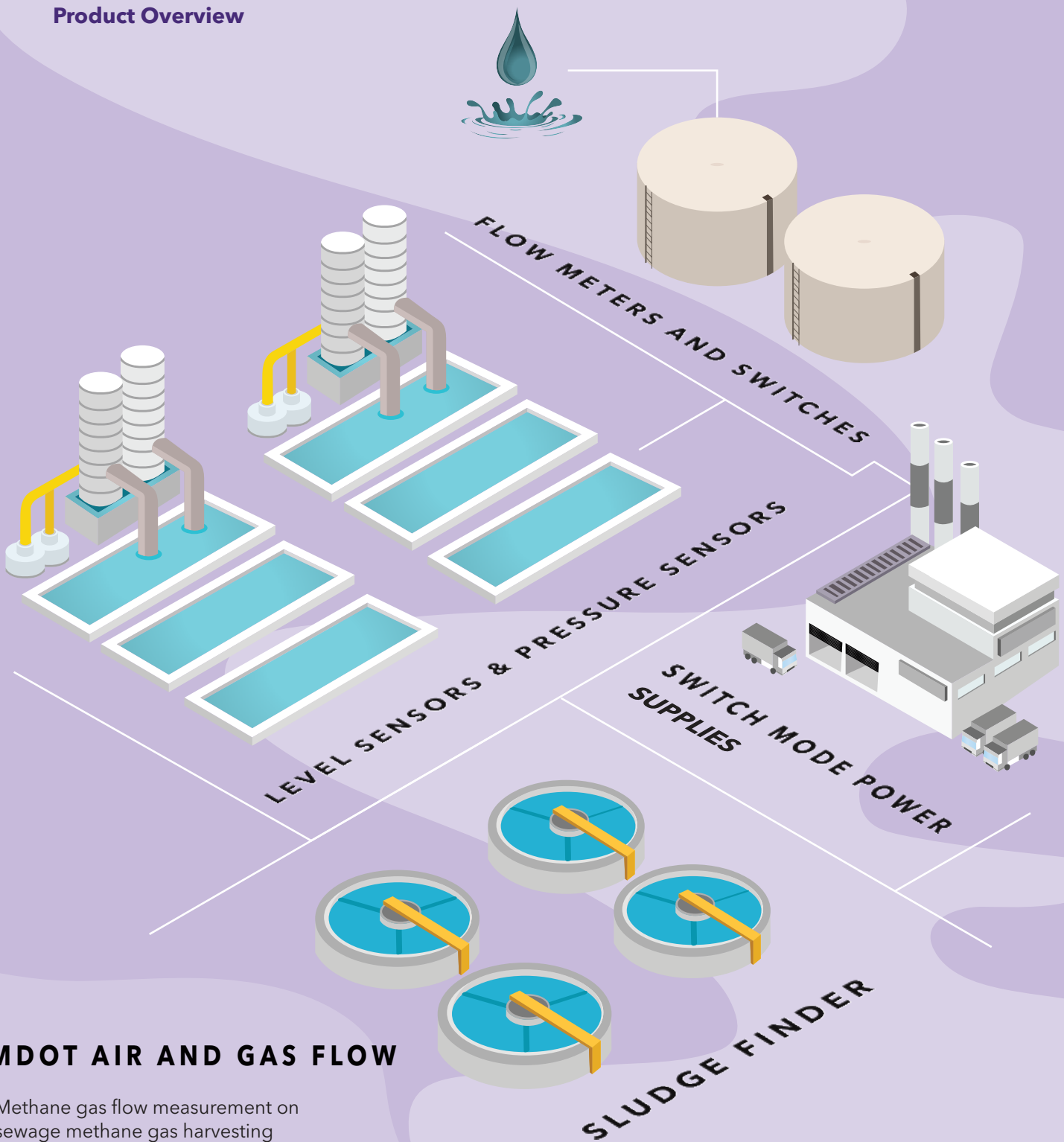
Expertise & Consultancy across all of our products

Calibration of transducers , sensor & other equipment

Service and repair down to component level.

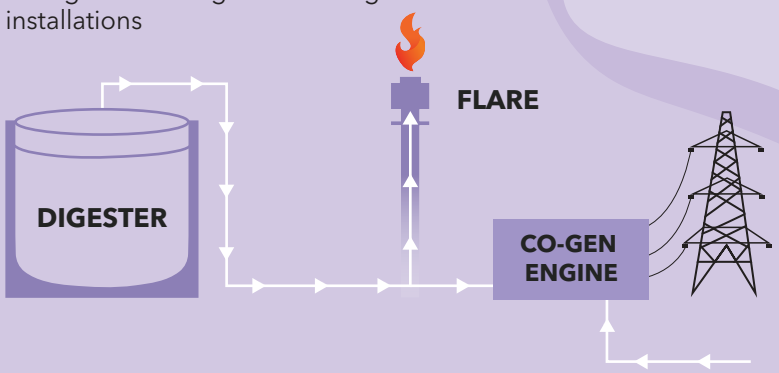
PRODUCTS FOR THE
Water Industry

Product Overview



MDOT AIR AND GAS FLOW

Methane gas flow measurement on sewage methane gas harvesting installations



DIN Rail Power Supplies

MEAN WELL
SDR/TDR Series DIN Rail Power

12V, 24V, 48V.
75W, 120W, 240W, 480W, 960W.
Up to 8 units can be connected in parallel (SDR-480P)
Up to 4 units can be connected in parallel (SDR-960)
High efficiency.
Contant current limiting overload protection.
130% ~ 150% peak load capacity.
3-year warranty.

MEAN WELL
RSP/T Series Power Supplies

Power outputs ranging from 75W to 10000W.
Voltages from 3.3V to 48V.
3-phase (5000W and 10000W).
Power factor correction.
1U low profile (up to 2000W).
Programmable models available.
Some models can be connected in parallel.
Some models feature auxiliary power.
High efficiency .
3-year warranty (5 years 5000W and 10000W).

MEAN WELL
Buffer Modules

Short term DC back up for critical systems.
No battery solution.
Faster than a standard UPS system.
Maintenance free.
Relay output for alarm.
3-year warranty.

ADELSystem
DC UPS

DC UPS: 12V, 24V, 48V
3A, 5A, 6A, 10A, 15A, 20A models available
Temperature compensation*
For lead-acid and Lithium-ion batteries
Optional remote display controller (15A & 20A)
4 charging phases:

MEAN WELL POWER SUPPLIES for the Water Industry

MEAN WELL has been designing and manufacturing off-the-shelf switch mode power supplies for more than 40 years. In that time, MEAN WELL has grown to be a globally recognised brand renowned for producing high quality power supplies at an affordable price. MEAN WELL's broad product range means that they can offer a power supply solution suitable for many different water treatment and management applications.

DIN Rail Power Supplies

DIN rail power supplies are widely used in the water industry to provide reliable, regulated DC power for applications such as treatment, recycling, filtering, desalination, waste, and pumping. The SDR series is commonly used by the water industry, as it offers high efficiency and can tolerate a peak load capacity of 130% to 150% of its rated power output. They are available with 12V, 24V, or 48V DC output with power ratings ranging from 75W to 960W. Larger models can also be connected in parallel to supply additional power.

High Power Requirements

Some water treatment processes, such as electro chlorination, pumping, gate activation, and irrigation require a significant amount of power. For these applications there is the MEAN WELL RST series 3-phase power supplies. These are available in 5000W and 10000W models and have an output voltage of 24V, 36V, or 48V DC. They have built-in power factor correction and up to 4-units can be connected in parallel, depending on the model selected.

Harsh Environment Power Supplies

By their nature, some water treatment applications necessitate equipment to operate in a damp environment. In these situations, it is recommended that a fan-less power supply is used. This prevents moisture from being drawn into the power supply which has the potential to cause a failure that wouldn't be covered by the manufacturer's warranty. The MEAN WELL HEP AND UHP series are fan-less and have had their critical components potted, to prevent moisture damage.

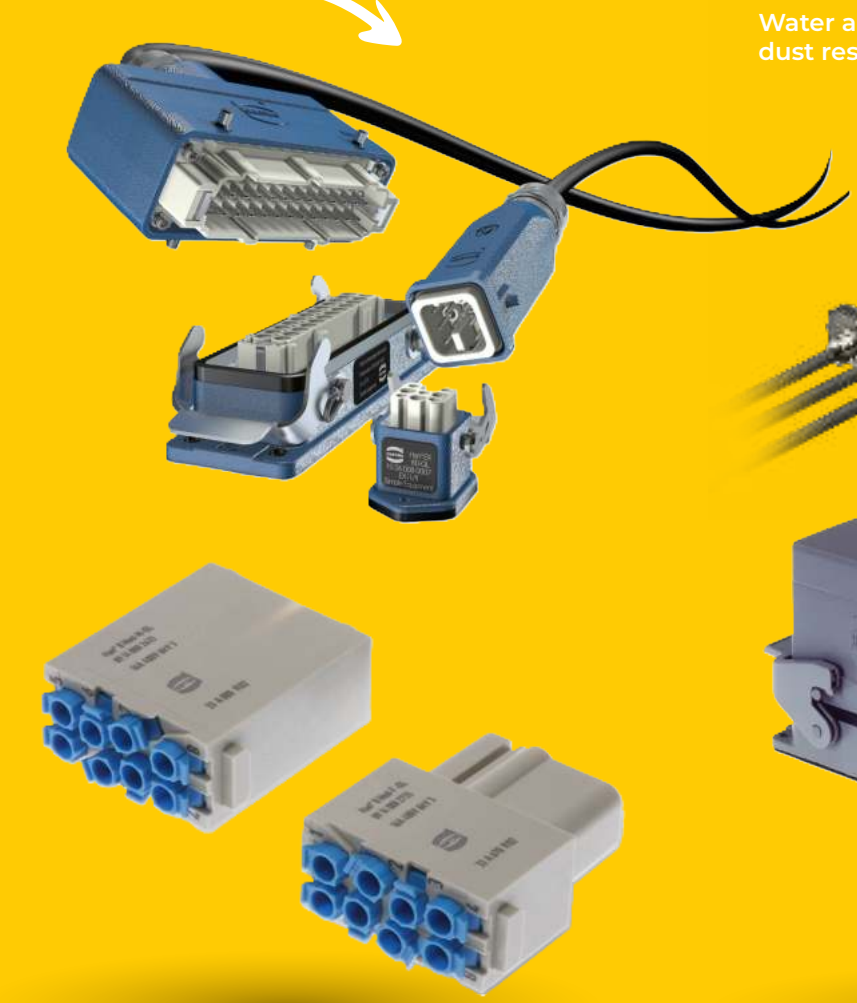
DIN Rail Mounted Modules

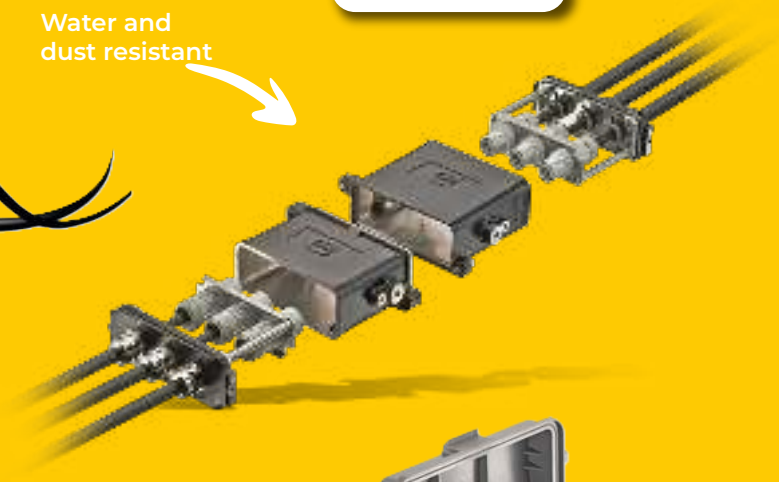
MEAN WELL offers a range of DIN rail mount modules with distinct advantages. The DBUF Series Buffer Modules utilise maintenance-free capacitors, giving you a fast alternative to a UPS for short term power back-up that eliminates the need for batteries. Redundancy Modules seamlessly switch between power supplies, ensuring system reliability. The DRC and DUPS Series DIN Rail Power Supplies combine primary output with battery charging, making them ideal for UPS applications. These solutions enhance reliability, simplify redundancy, and provide efficient backup power.

Can be configured to carry power, signals, data, and pneumatics in a single connector.

HARTING
Pushing Performance

Water and dust resistant





PowerNex
Your Best Power Supplier

Complies with IEC 60529
IP66

ORDER NOW AT ADM

DC UPS Solutions for the Water Industry

ADELSystem is a European manufacturer of DIN rail mounted DC UPS systems. The units combine a high-quality switch mode power supply, battery charger, and back-up unit in one compact DIN rail mountable.

They are ideal for backing up power for critical infrastructure, safety systems, and environmental control monitors.

All units incorporate 4 charging phases to manage the recovery of flat batteries, bulk charge with constant current, float maintenance, absorption at a constant (boost charge if fast charging is enabled).

An optional remote controller / display unit is available for the larger model which allows for off-site and remote monitoring of the UPS system. Temperature compensated charging is also available, which requires an optional temperature probe.

Water Ingress Resistant Connectors and Cables

ADM is an authorised Harting distributor in Australia.

Harting's Han-INOX® connector series features durable stainless-steel housings and offers bulkhead mounted housings and hoods with top, or side cable entry and protection covers. These connectors have been designed to withstand harsh conditions.

The Han-INOX® family includes stainless steel hoods and housings, fully compatible with the Han® and Han-Modular® series inserts, offering a high degree of flexibility for various applications. The connectors are ideal for situations where a robust solution suitable for more demanding environments is required.

Enclosures / Distribution Boxes

ADM stocks a range of IP66 rated weatherproof powder coated steel enclosures. The sizes we carry as standard are:

Model Number	Height	Width	Depth
FT604020	600mm	400mm	200mm
FT806020	800mm	600mm	200mm
FT504020	500mm	400mm	200mm
FT303015	300mm	300mm	150mm
FT403015	400mm	300mm	150mm
FT202015	200mm	200mm	150mm
FT1006025	1000mm	600mm	250mm

INDUSTRIAL MEASUREMENT SOLUTIONS
for the Water Industry

Pulsar Flow Monitoring Solutions

1

Pulsar AVFM portable area velocity flow meter.
This portable submersible area velocity flow meter measures the flow of open channel systems. The system can operate in both pipe and open channel, by placing the sensors either inside of a partially filled pipe or at the bottom of the channel, where it will measure both level and flow.

2

Ultrasonic Clamp on Flow Meters
ADM offers a range of Pulsar ultrasonic clamp on flow meters, for either clean or dirty water. We have devices designed for fixed mount installation, as well as portable battery powered devices. Clamp-on flow meters are a cost-effective option for large pipelines, as well as for corrosive or abrasive flows.

Datalogging of flow information is a common standard feature. Installation is also super easy considering that the pipe walls are not compromised to install the instruments

3

FarSight
Non-contact water surface velocity sensor for open channel and creeks. The FarSight sensor measures the velocity of water's surface through no-contact radar technology.

Applications:
Environmental monitoring, flood warnings, stormwater runoff, or even flow measurement in a narrow open gutter.

4

Pulsar DFS flow switch series
Complete with doppler ultrasonic clamp on sensor, this is the ideal solution for when no contact with media is preferred. There are no moving parts, which means high reliability. Typical applications include dirty water, slurries, sewerage wastewater, and corrosive media. Suitable for use with line sizes ranging from 12.5mm up to 4.5m. Powered by 240VAC, with 5A relay outputs and a bar graph flow indicator.

5

Pulsar MDot IECEx certified thermal mass flow meter.
This advanced insert flow meter monitors the flow of air and gases. It uses the thermal dispersion method to calculate the volume of gas passing that point. A common application for this flow meter is sewerage aeration systems.

INDUSTRIAL MEASUREMENT SOLUTIONS
for the Water Industry

Pulsar Flow Monitoring Solutions

Pulsar Sludge Finder
The Sludge Finder controller provides continuous and reliable measurement of the sludge blanket level beneath the surface in wastewater treatment plants, settlement tanks, ponds, clarifiers, gravity thickeners, and batch reactor systems.

Level Monitoring Solutions
ADM offers a range of different level measurement technologies. Each has its own unique advantages. Our team is on hand to help you select the most suitable device for your application. Typical applications include tank and pond level monitoring, as well as bore and well level measurement. Our product range includes radar level sensors, ultrasonic level sensors, and hydrostatic sensors.

Pressure Sensors
ADMs stocked range of pressure transducers includes high specification devices from British manufacturer, ESI, as well as very affordable sensors from TSA. So, whether you are looking for a highly durable pressure sensor for a system critical application, or a cost- effective device for a budget sensitive project we can help.

Hydrogen Safe
Pressure Transmitters ESI's GS4200 series transducers use a special Titanium alloy, which has passed hydrogen compatibility testing based on ISO 1114-2:2017, according to the European Regulations EC 79/2009 and EU 406/2010 and are available with certification for use in Hydrogen applications.

WASTEWATER TREATMENT

How to improve wastewater treament plant efficiency

Manual sampling of wastewater sludge levels with a dipstick can be dirty work, lead to inconsistent results, and be potentially harmful to human operators.

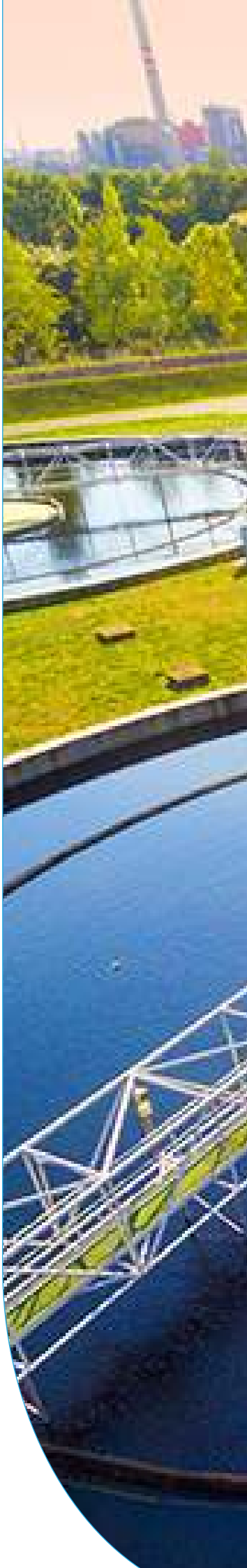
The Pulsar SludgeFinder 2.0 offers an innovative solution for management of wastewater settlement tanks and clarifiers, delivering continuous and reliable sludge level monitoring. This system enhances overall plant efficiency by precisely timing the start and stop of the tank filling or draining process, ensuring optimal operation.

Sludge needs to be drained from the bottom of waste water tanks when the sludge blanket level reaches a certain point. This maximises the value of the vessel size, of what is essentially a batch process. Similarly, when draining the sludge out the bottom, it is imperative to switch that pump off before the less dense fluid on the surface starts flowing through.

The SludgeFinder's head operates as a submersible ultrasonic measurement sensor, with the SludgeFinder transducer emitting a signal and measuring the reflections from the various media within the tank. The intelligent echo processing algorithm can clearly determine the range between the surface, flocculant, sludge blanket, and tank bottom.

Accurate monitoring of the sludge levels combined with precise timing of the tank draining and filling, can significantly improve the entire plant process efficiency. This results in saving water, energy, and man-hours, which will easily offset the cost of the SludgeFinder instrument over a relatively short period.

The Pulsar SludgeFinder has an IP68 ingress protection rating and incorporates a cleaning arm (much like a windscreen wiper) that removes debris and sludge from the sensor. This means it can be left submerged for as long as needed, reducing the need for manual sampling by human operators. The system integrates with higher - level control devices via two 4 - 20mA analogue outputs, and an RS232 digital output.



For further information on the SludgeFinder please call ADM on 1300 236 467.

RADAR LEVEL SENSORS VS ULTRASONIC LEVEL SENSORS

Radar and Ultrasonic level sensors (also known as transmitters) can achieve the same goal, both products use the “time of flight” principle to measure the level within a vessel, but what are the differentiating factors between the two?

The most notable difference between Ultrasonic and Radar level sensors has been primarily price.

Radar has historically been a more expensive technology. It has often been said that radar level sensors are the expensive solution for all those difficult applications, where ultrasonic struggles to get a reliable result. However, it should be noted that Pulsar Measurement is bridging the technology gap, refining both ultrasonic and radar level transmitter technology and closing the price gap.

Ultrasonic level sensors transmit sound waves down into the vessel, which reflect from the surface of the liquid and back to the ultrasonic sensor. The time taken for the transmitted signal to reach the surface of the liquid and travel back to the sensor, determines the level within the tank or vessel. Ultrasonic level sensors are most reliable when running within an environment with stable atmospheric conditions. This is important as sporadic atmospheric conditions, such as wind (if the vessel is in open air) and temperature can influence air molecules, which affect the soundwave's ability to produce a consistent measurement.

pulsar MEASUREMENT

ULTRASONIC LEVEL SENSORS

How to improve Wastewater Treament Plant Efficiency

Radar level transmitters work similarly to ultrasonic sensors. The difference is that they produce electromagnetic radio microwaves instead of sound waves.

Similarly, a signal is transmitted and reflected from the surface of the liquid back to the level meter, determining the level of the liquid stored in the vessel.

Radar sensors are not impacted by changes in atmospheric conditions in the same way ultrasonic level meters.

Also, the signal is less affected by turbulence on the liquid surface. Radar systems are also capable of differentiating between foam and the liquid's surface.

It should be noted that both Radar transmitter and Ultrasonic sensors have a “deadland” area directly in front of the sensor head, where liquid cannot be detected. This is usually within a few hundred millimetres, which can lead to inconsistent measurement or errors. However, Radar often has a shorter deadland range than an Ultrasonic device.

Don’t hesitate to contact ADM on 1300 236 467, if you would like to discuss whether a radar or an ultrasonic solution is the better choice for your application.

HYDROSTATIC LEVEL MEASUREMENT

ADM offers several liquid level measurement technologies. Not all will be appropriate for your application.

Hydrostatic sensors are powered by a permanently fitted vented cable and is submerged into the liquid to be monitored.

In most applications the liquid surface is subjected to atmospheric pressure. Compensation for barometric pressure change is achieved using a vented cable.

In most applications the liquid surface is subjected to atmospheric pressure. Compensation for barometric pressure change is achieved using a vented cable.

A vented cable is required because; to provide accurate electrical measurement, it is important that the sensor element is subjected to the same atmospheric pressure as that acting on the liquid. This is particularly important for the measurement of low levels of liquid, where changes in barometric pressure can significantly affect the true reading of level. For example, at high altitude where low atmospheric pressure is present.

The liquid column above the pressure sensor creates a hydrostatic pressure which is a direct indicator for the liquid level.

The liquid level sensor converts the acting pressure into an electrical signal. Most users will typically require a 4-20mA output, enabling signals to be transmitted over long distances, although other output options are available.

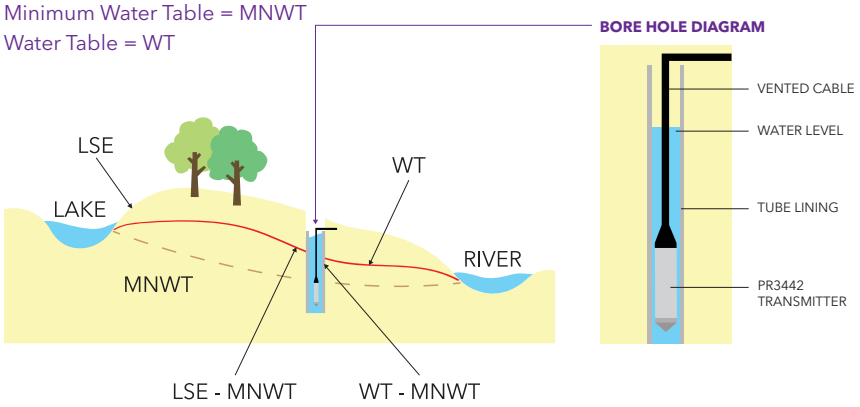
Borehole Monitoring

One advantage of hydrostatic level sensors is that they can be permanently immersed in boreholes. For example, for measuring the depth of the water table.

The water table is the underground depth at which the ground is totally saturated.

Deep boreholes with an average diameter of 25mm are drilled and left to fill to the level of the water table. A small diameter submersible pressure sensor is lowered down the borehole to accurately measure this level. In this type of application the control system would normally incorporate a barometric sensor, which is used to compensate for changes in atmospheric pressure.

KEY:
Land Surface Elevation = LSE
Minimum Water Table = MNWT
Water Table = WT



Monitoring Liquids in Storage Tanks

Hydrostatic Level sensors are also well suited to measuring the levels of fluids in storage tanks. The pressure existing at a certain depth within a liquid is directly proportional to the column of water above.

Therefore, the level of the liquid in the tank is determined by using a Hydrostatic level sensor to take a reading at the bottom of the water column. The sensor is lowered to the bottom of the tank via an access hole in its top. The sensor cable is then connected back to a monitor, data logger, or PLC.

Summary

The advantages of using a Hydrostatic level measurement sensor are that the vessel does not need to be disturbed or adapted to fit a level sensor. Also, there is no need to install tank wells or sight glasses, etc. It allows levels to be measured under difficult conditions, such as down a deep shaft. The probe is easily retracted for cleaning and maintenance purposes. It is a highly reliable and robust solution.

Please do not hesitate to contact ADM. f you would like assistance in selecting the most appropriate level measuring solution for your application.

OUR SUPPLIERS

MEAN WELL

Thermo SCIENTIFIC

ADELSYSTEM make your system better

pulsar MEASUREMENT

WATLOW Authorized Solutions Provider Eurotherm.

esi

POSITAL FRABA

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