# TracWater Real-time Pressure Unit

# The Gamg CHANGER

in cloud-based robotic water quality monitoring





### Nothing beats a TracWater<sup>®</sup> Pressure Unit for real-time, cloud-based pressure monitoring

Compact, battery powered and wireless - The TracWater® Pressure Unit is a powerful remote Plug & Play network pressure monitoring solution. Superior quality and performance meet the highest of expectations. With 4G wireless communications, the TracWater® Pressure Unit makes robotic, autonomous network pressure measurements 24/7.

#### Take it anywhere, fast...

- Military tough, autonomous field monitoring devices
- Seamlessly integrated with a secure cloud communication system
- Purpose built, super high-speed data engines with machine learning
- A user-friendly and immersive interactive visual platform TracWater laaS
- Accessible anywhere in the world



## **TracWater<sup>®</sup> Pressure Unit TWPU-1A**

# No other portable battery powered pressure monitor can match this:

- Measures Operating Pressure
- Monitors Transient Pressure events
- Transient Pressure monitors at 1000 times a second and records at 100 times a second on the cloud
- Robust pressure sensors for potable water and sewer applications
- Battery powered. Up to 2 years battery life between charges
- Wireless 3G/4G communications
- Plug & Play. Connects to TracWater® IaaS Information as a Service platform
- Pre-configured and calibrated in the factory prior to shipment
- Designed and built in Queensland, Australia



## TracWater<sup>®</sup> Pressure Unit for early warning detection of unplanned pressure events at distant parts of the network

TracWater<sup>®</sup> also provides a unique early warning detection system for water distribution networks and public infrastructure.

This combines TracWater high sensitivity digital IoT sensors with dedicated event detection algorithms and automatic SMS and email notification of alarm events.

Self-contained TracWater<sup>®</sup> pressure event robotic monitors can provide an economically viable online early warning sensor network that can be deployed anywhere in the water distribution grid. TracWater<sup>®</sup> offers a flexible and affordable platform for the real-time measurement of Pressure and Transient Pressure events in the water distribution grid.

TracWater<sup>®</sup> robotic water analysers do not need any connection to mains power or solar power. They can be installed indoors or outdoors anywhere that a pressurised low-volume water supply can be obtained.

Portable cases are rated to IP67 while all electronic components, sensors, and military specification wiring connections are rated to IP68 meaning that they must be able to operate while submerged.

### TracWater<sup>®</sup> TWPU Real-time pressure monitoring for Hydraulic Modelling



#### TracWater<sup>®</sup> IaaS Information-as-a-Service Platform

Around the clock, high-resolution water quality monitoring requires high level technical understanding of the cloud and big data management systems. Most Australian utilities are not sufficiently resourced to be able to do this 24/7. Yet every Australian expects clean and healthy water at their tap. The TracWater IaaS platform is a FULL SERVICE offer to water utilities to help them to ensure that their water quality is being managed in real-time across the water distribution network.

TracWater has proven strengths in innovative high-speed cloud-based utility systems which enable the TracWater IaaS field-proven data solution for Australian water utilities:

- Fully user-interactive cloud-based data and historical trending for up to 3 years
- Accessible from any web enabled devices
- Alarms and threshold notifications sent via SMS or Email
- Automatically generated customised reports
- Real-time data can be delivered to existing SCADA systems
- Supported by thousands of hours of fault-free operation
- Industrial and building automation
- Perfect for Hydraulic Modelling applications

### TracWater<sup>®</sup> TWPU Pressure Unit is built tough and performs faultlessly in severe conditions



# TracWater<sup>®</sup> Secure Data:

Complies with the Federal Government Australian Signals Directorate's cloud computing security risk profiles

# The connected future is unstoppable



Information and applications are spreading to the cloud across the globe in all industries. Most governments now require that all critical data is to be maintained securely on-shore. TracWater® laaS water quality data, which we supply as an Information as a Service package, is the convergence of electronic security with cyber security. It is a specialised area of information and telecommunication technology that we take care of seamlessly for our clients. Keeping track of data security threats and deploying solutions to protect data infrastructure and operations requires skilful resources in emerging cyber security streams. We leverage the economic advantages of cloud computing to deliver high quality capabilities to all of our customers.

Using TracWater® Information as a Service we aim to:

- Eliminate all of the data risks associated with using overseas based servers which are constantly subjected to malicious intent by attackers, malware, viruses and physical security threats.
- Maintain compliance with the Australian Government's Australian Signals Directorate cloud computing security risk profiles, which evolve at the same rate that new data security threats emerge
- Ensure up-to-date protection is maintained over our clients' data and our cloud infrastructure
- We deploy multiple strategies at every data layer to minimise exposure risks including private cloud networks, private addresses for TracWater® water quality assets and devices, military grade encryption and secure socket layers (SSL) for inter-network connections.

#### Integration with other legacy systems

Real time TracWater® pressure measurement data can be integrated with most existing SCADA systems, building management systems BMS and other legacy control systems.

TracWater® TWPU Portable pressure monitors can easily extend the data reach of existing legacy control systems without the need to resort to expensive SCADA system

replacement or upgrades.

TracWater® real-time measurement data can provide an operational window into the distant and hidden parts of the water network that fixed-in-place pressure monitoring systems can never reach.

TracWater<sup>®</sup>TWPU Portable cloud-based pressure monitors can be used just about anywhere



#### **Operating Specifications**

Measurement Type	TWPU-1A
Water Pressure	•
Transient Pressure	•
Sensor Inuts	TWPU-14
Digitl Inputs (counter or state)	2
4-20mA Analogue Inputs with 12VDC Loop Power	2
MODBUS Device (2 registers)	1
Features	TWPU-1
Plug & Play	•
Self Powered	•
Remote Configuration	•
Sensor Sampling Rate	٠
Data Upload Schedule	٠
3G/4G Wireless Communication	٠
Full-time Background Analytics	•
laaS Online Dashboard for PC or Smarthone	•
Anomaly Detection & Emerging Pattern Recognition	•
API Data Synchronisation - SCADA, GIS	•
User Configurable Email & SMS Notification (multi-level)	٠
Aust Signals Directorate Cyber Security Compliance	٠
Heartbeat Monitoring	TWPU-1A
Communications Signal Strength	•
3G/4G Network Operation	•
Low Battery Power Alert	•
Sample Flow Interrupt Alert/Alarm	•
Transient Pressure Event Alert	•
Water Pressure Alert/Alarm	•
Dimensions (cm)	TWPU-1A
L19 x W33 x H43	٠
Weight (Kg)	TWPU-14
	9

**Optional Accessories** 

Isolated Pressure Sensor Kit 0-10bar and 0-16bar

#### TracWater Pty Ltd

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### The TracWater<sup>®</sup> family of cloud-based, battery powered solutions reduce the cost of remote water quality testing

TracWater<sup>®</sup> DMA model sensor systems have operated remotely in the field for over 520,000 fault free hours. No TracWater<sup>®</sup> measurement data has ever been lost even during the most severe floods and cyclonic weather events.

Designed for a twenty year operational life by engineers with real experience in the field, every TracWater® robotic water analyser is strongly built.

All internal parts and systems are modular and field serviceable and cabinets are constructed to maximise equipment security and minimise damage by vandals.

TracWater® robotic analysers make up to 2,800 live, user-interactive cloud-

based water quality reports every day. Each report consists of 6-10 measured water quality parameters and advanced units can make up to 4,800 measurements per day.

The operational cost for a cloud-based TracWater® remote water analyser system can be far less than the cost of traditional grab-sampling and thousands of times faster.







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