Congrego® Data Loggers

Total data control & logging for air quality
& continuous emission systems

Ecotech

ACOEM Group

"I can work remotely to access all my monitoring instruments in one place via the web interface."

"The backward compatibility option supports our older analogue / digital analysers, helping extend the life of our equipment hardware investments."

Not All Data Loggers Are Created Equal

Generic data loggers weren't good enough for ECOTECH, so they shouldn't be good enough for you.

When ECOTECH began its pioneering work in the environmental monitoring industry 40+ years ago, there wasn't an off-the-shelf data logger available we could rely on to accurately capture environmental sensor and instrument data to our satisfaction.

The level of precision and reliability ECOTECH required did not exist in the logger market.

So ECOTECH developed its own range of data loggers, always focussing on ways to make environmental monitoring simpler and more efficient for our customers.

Harnessing operational insight that only comes from decades of extensive field experience, ECOTECH accomplished what very few companies could – to research, design and manufacture data logging systems that were tailor made for the environmental monitoring sector.

From the first-generation ECOTECH 9200 microprocessor and DOS-based 9400DAS data loggers in the 1980s, through to the WinAQMS Data Acquisition System (DAS) with digitally-integrated remote-access capabilities in the early 2000s, ECOTECH has always strived to find answers to the unique challenges faced by environmental monitoring professionals around the world.

Together, we create data logging solutions that shape the future.

When your business or research team is committed to ensuring the best possible air quality and accurate environmental monitoring, relying on generic data loggers is a risk.

General purpose data loggers can work for a range of measurement applications, but generic data loggers are not designed to meet the special needs of environmental monitoring.
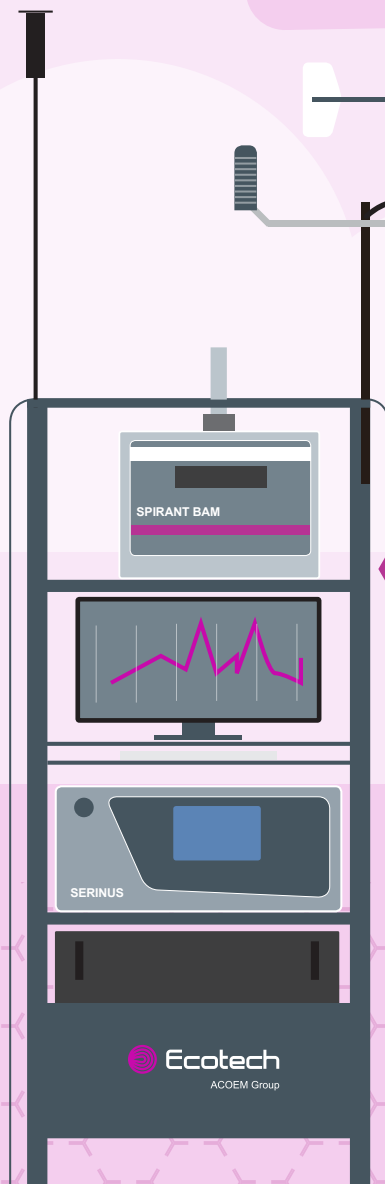
For example, Congrego® fulfils the "traceability of records" requirement of ISO 17025. This level of traceability is absent from many generic data loggers.

Unlike ECOTECH, manufacturers of generic data loggers don't live and breathe the environmental monitoring world.

Generic data logger manufacturers can't appreciate or truly understand the operational and scientific nuances that challenge environmental scientists, researchers and professionals every day.

You have made a significant financial and non-financial investment in your monitoring equipment, so you need absolute trust and confidence that the data logging solution you implement will capture your crucial data.

From the salty shores of the Dead Sea, to the high altitude Jungfraujoch research station in the Swiss Alps, ECOTECH understands better than anyone that not all environmental data loggers are created equal.

SPIRANT BAM

SERINUS

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"Congrego® is the brain that effectively controls the body of your air quality monitoring station."

Congrego® Created by the Monitoring Industry... For the Monitoring Industry

A next generation total data control and logging hardware/software solution for air quality and continuous emission systems.

Engineered from the ground up to achieve accurate, reliable, real-time data logging specifically for ambient air and continuous emission monitoring systems, Congrego® is the culmination of 40+ years' of commercial experience and operational insight by ECOTECH.

Seamlessly supporting numerous types of sensors and environmental instruments simultaneously, Congrego® was created with environmental professionals in mind. It will transform the way you access real-time and historical data from your environmental monitoring equipment.
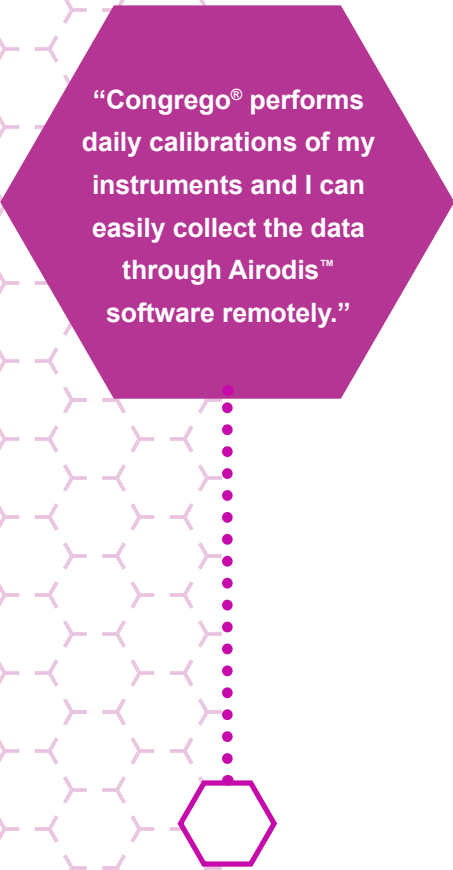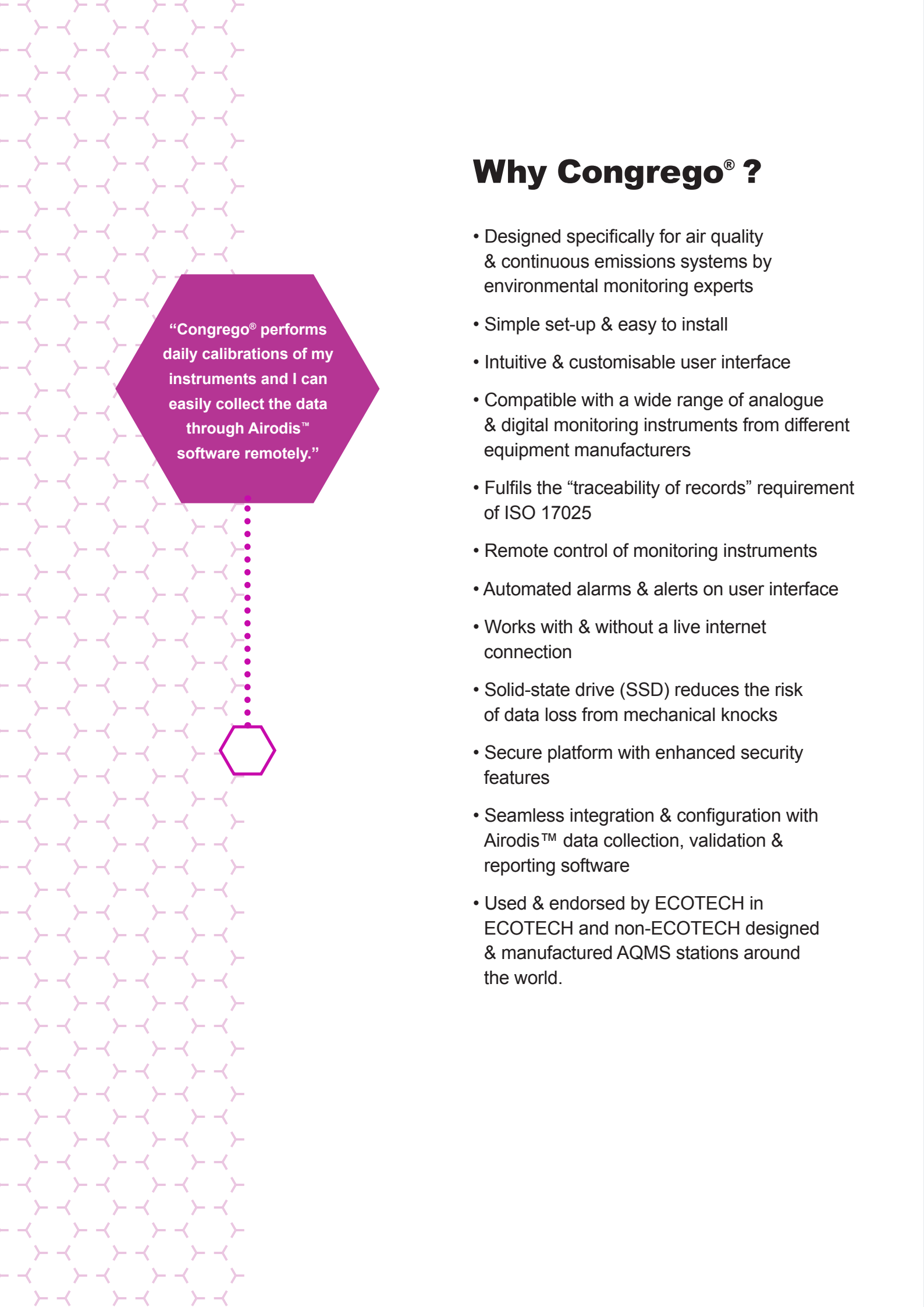
When running a variety of environmental monitoring instruments concurrently, ECOTECH understands being able to get accurate and reliable data is essential to meeting designated standards, complying with regulations, and ensuring the safety and wellbeing of your workforce and the community in which you operate.

Congrego® is the next generation in data capture and logging for air quality and continuous emission systems.

More than just a data logger, Congrego® is a total control and logging solution for all your monitoring requirements – making the transition from data recording to report generation simple and seamless.

> "Congrego® is the central node that runs everything at your site and is the only interface you need to manage all sensors and instruments at once."

Why Congrego® ?

- Designed specifically for air quality & continuous emissions systems by environmental monitoring experts

- Simple set-up & easy to install

- Intuitive & customisable user interface

- Compatible with a wide range of analogue & digital monitoring instruments from different equipment manufacturers

- Fulfils the "traceability of records" requirement of ISO 17025

- Remote control of monitoring instruments

- Automated alarms & alerts on user interface

- Works with & without a live internet connection

- Solid-state drive (SSD) reduces the risk of data loss from mechanical knocks

- Secure platform with enhanced security features

- Seamless integration & configuration with Airodis™ data collection, validation & reporting software

- Used & endorsed by ECOTECH in ECOTECH and non-ECOTECH designed & manufactured AQMS stations around the world.

"Congrego® performs daily calibrations of my instruments and I can easily collect the data through Airodis™ software remotely."

FUNCTIONALITY

- Aggregated reports provide values for multiple periods - from 1 second to daily

- Logs multiple functions from any channel

- Hardware watchdog timer (WDT) automatically cycles power when required

- Works online or offline

- Multi-language capability: English, Afrikaans, Chinese (simplified), French, German, Greek, Russian & Spanish.
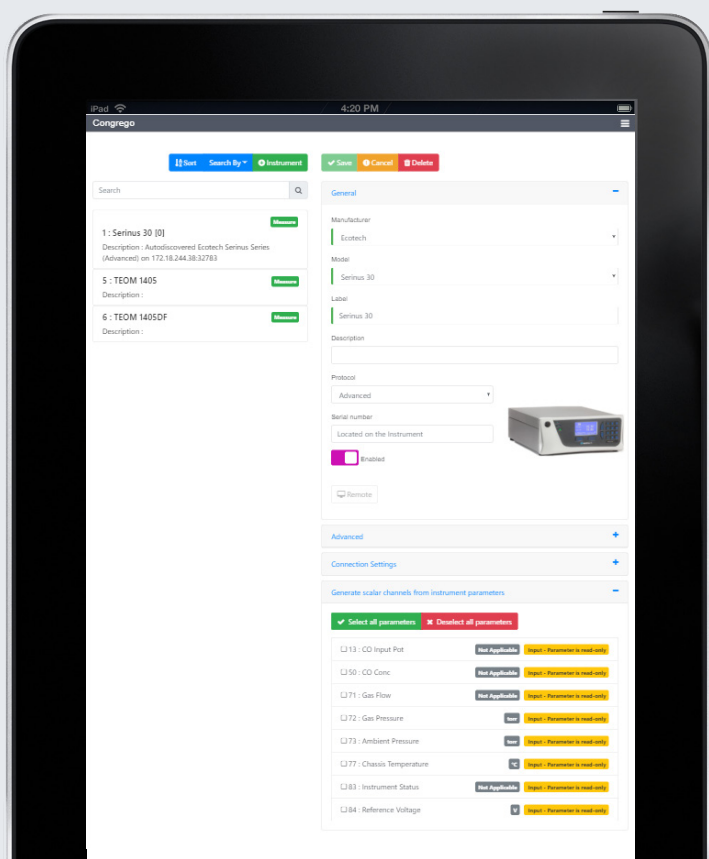
HARDWARE SPECIFICATIONS

- 6 x RS232 ports

- RJ45 network port

- Inbuilt WiFi

- 6 x USB ports, including 1 for software protection key

- HDMI display port

- 12 / 240 VDC power supply

- 16 x analogue inputs
  (via optional Terminal Panel Interface Module (TPIM))

- 8 x digital outputs, 8 x digital inputs
  (via optional Terminal Panel Interface Module (TPIM))

- Solid State Hard Drive

- MS Windows.

CALIBRATIONS

- Schedule daily Span & Zero checks with ease

- Record average of last few minutes for Span and Zero reporting

- Log dilution concentration with Span for drift checking

- Schedule & record multipoint checks (e.g. weekly)

- Changes instrument states to facilitate calibration check with support for:

  - Serinus® inlet selection – measure / calibration
  - Serinus® Calibrator – select calibration points 1-32
  - TPIM / Modbus digital outputs to other instruments / calibrators.

"It's a flexible platform with extendable protocols that allows me to integrate all my devices."

Complex technology in a simple framework

Using default settings straight out of the box, Congrego® can be installed, configured and operational in a matter of minutes.

Many data loggers are difficult to install and configure, requiring a high level of training, excessive time and ongoing maintenance.

ECOTECH knows how important it is to be able to minimise these factors, so we designed Congrego® to be easy.

Congrego® is a ready-to-use, simple to operate software and hardware platform that interfaces with a wide variety of equipment digitally.

Congrego® controls how instruments inter-relate, reliably taking complex amounts of data and transforming it into easily accessible, digestible and accurate data that informs decision making and effective systems operation.

It can be operated and controlled remotely from any internet browser-enabled device – laptop, tablet or mobile phone.

An intuitive user-interface design means you can confidently master the basics of Congrego® in less time and with less effort.

MORE RELIABILITY & SCALABILITY

Congrego® is a complete control and logging solution, whether you are logging data from a single gas analyser or complex monitoring system.

From a simple weather station with a few inputs to a complete ambient air quality monitoring system with numerous gas analysers, a calibrator, meteorological equipment and particulate samplers, Congrego® is designed to work with and support a wide range of sensors, analysers and instruments.

Congrego® works with equipment manufactured by:

- ECOTECH
- 01dB
- Los Gatos Research
- Met One Instruments
- Opsis
- Palas
- Teledyne API
- Thermo Fisher Scientific
- Tunnel Sensors / Dynoptic
- Vaisala
- and more...

USER-CENTRIC DESIGN

Automation of processes like calibration checks and alarms in Congrego® reduces the requirement for unnecessary on-site access by personnel.
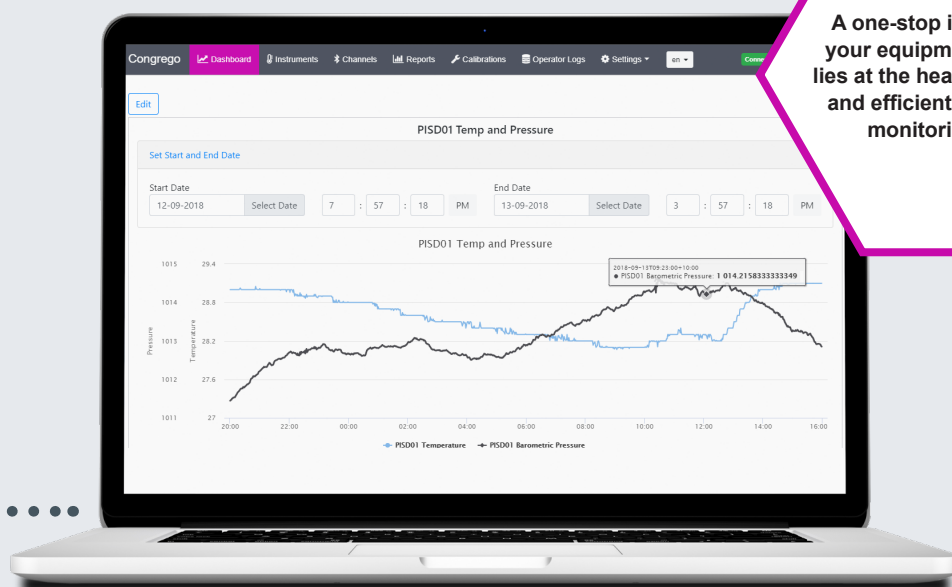
This user-centric design feature is particularly beneficial when monitoring stations are positioned in hard to reach or remote locations and station management is performed remotely.

Not having to physically visit monitoring sites saves time, effort and resources, making the entire monitoring system more convenient and efficient.

Congrego® can be accessed and updated by multiple authorised users concurrently. An easy to customise dashboard gives Congrego® users choice and control of how to view their real-time and historical data.

Hundreds of parameters of data can be presented simultaneously in a variety of widgets, graphs and tables, depending on user preference.

Operating on industry-standard Windows platform, Congrego® is an indispensable tool for industry, government authorities and research facilities serious about data capture, accuracy, reliability and management.

A one-stop interface for all your equipment, Congrego® lies at the heart of an accurate and efficient environmental monitoring system.

"Congrego® Lite is the ideal solution where low power consumption is essential."

Congrego® Lite

The Congrego® data logger was designed for optimal use with full-reference environmental monitoring stations.

However, ECOTECH appreciates that there are many other applications that would benefit from the precision and accuracy of Congrego® but may not need the full functionality.

Introducing Congrego® Lite – a lighter, even more compact, yet equally precise data logger.

Congrego® Lite is the ideal solution for smaller metrological stations, dust monitoring sites, solar stations and applications where low power consumption is essential. It is also the perfect data logger for tunnels where multiple units can be easily installed to give better spatial resolution with hyperlocal, accurate air quality data along the entire length of the tunnel.

Congrego® Lite is perfect for smaller applications where physical constraints or project scope demand.

When compared to the full-feature Congrego® data logger, Congrego® Lite is:

- 30 % smaller

- Uses 55 % less power
  (11 watts compared to 22 watts)

- Has 15 channels

- Has 1 solid-state hard drive (SSD)
  (instead of 2)

- Equipped with essential ports only.

Just like the full-feature Congrego® data logger, Congrego® Lite:

- Offers the same simple set-up and easy installation with an intuitive and customisable user interface

- Fulfils the "traceability of records" requirement of ISO 17025

- Allows for local or remote control of monitoring instruments

- Has automated alarms and alerts

- Works with or without a live internet connection

- Integrates seamlessly with AirodisTM data collection, validation & reporting software.
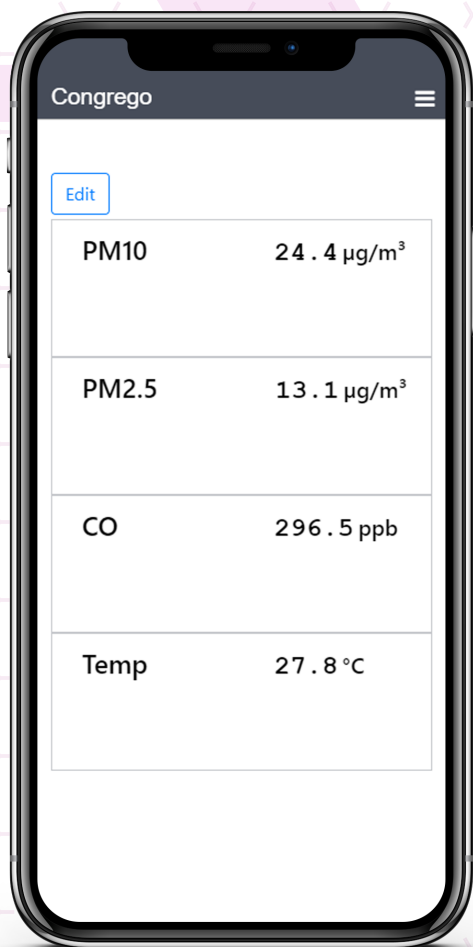
Congrego®

Congrego® Lite

SPECIFICATIONS

CONGREGO®	CONGREGO® LITE
Ideal for full-reference environmental monitoring stations.	Ideal for smaller applications e.g. meteorological stations, dust monitoring stations, solar installations, tunnels & applications where greater monitoring density is required to achieve better spatial resolution.
Designed by ECOTECH specifically for air quality & continuous emissions systems	
Simple set-up & easy to install with an intuitive & customisable user interface	
Compatible with a wide range of analogue & digital monitoring instruments from different equipment manufacturers	
Fulfils the traceability of records' requirement of ISO 17025	
Automated alarms & alerts on user interface	
Local or remote control of monitoring instruments	
Works with or without a live internet connection	
Seamless integration & configuration with Airodis™ data collection, validation & reporting software	

HARDWARE IS FULL-SIZED 187 X 111 X 50 MM	HARDWARE IS 30 % SMALLER 134 X 128 X 45 MM
22-WATT POWER USAGE	11-WATT POWER USAGE
13 INTEL PROCESSOR	LOW POWER CONSUMPTION INTEL PROCESSOR
6 X COMMUNICATION PORTS	4 X COMMUNICATION PORTS
2 X NETWORK PORTS	
6 X USB PORTS	4 X USB PORTS (1 REQUIRED FOR DONGLE)
2 X HDMI PORTS	1 X HDMI PORT
WIFI ENABLED	FIXED INTERNET JACK – NO WIFI
2 X SSD HARD DRIVES	1 X SSD HARD DRIVE
WATCHDOG TIMER	NO WATCHDOG TIMER
UNLIMITED CHANNELS / PARAMETERS	15 CHANNELS / PARAMETERS
CALIBRATION CAPABILITY	NO CALIBRATION CAPABILITY

Product designs and specifications are subject to change without prior notice.

Peace of Mind

Designed from the outset to be a robust and reliable environmental monitoring data logger, Congrego® offers you peace of mind – knowing that all your important data will be captured accurately, stored safely in one place, and can be easily retrieved for precise reporting.

To learn more about Congrego® and how it can transform the way you log your environmental data, please visit ecotech.com/congrego

"Reliability with a logger is key. Congrego® lets me isolate an issue without it affecting other instruments, so I don't lose my configurations, have to reset everything and start again."

Environmental Monitoring is the Heart of What We Do

The success of our business and the critical monitoring services ECOTECH provides demands a data logger like Congrego®.

ECOTECH has been at the forefront of environmental monitoring for over 40 years. From its global head office in Melbourne, Australia, ECOTECH has pioneered solutions in the design, manufacture, operation and maintenance of air, water, gas, meteorology, noise, vibration, blast, fine particulate and dust monitoring systems to internationally recognised standards.

We manage and maintain over 500 real-time environmental monitoring sites, consisting of thousands of individual pieces of equipment for government agencies, researchers and industry in 80+ countries around the world.

Commercial expertise like this doesn't accumulate overnight. It provides ECOTECH and the customers we serve with a heightened understanding of the absolute need for a next generation data logger that is tailor-made for environmental monitoring.

Congrego® is that data logger.

GLOBAL REACH, LOCAL KNOWLEDGE

In 2017, ECOTECH became part of ACOEM Environment, a special division of the ACOEM Group, a global enterprise dedicated to sustainable development and helping companies and public authorities limit their environmental impact.

The division brings together two respected leaders in the fields of environmental monitoring - ECOTECH and 01dB - creating the first globally integrated offering of products and services across noise, vibration, air, dust and water pollution monitoring, operating in 80+ countries worldwide.

With an international reputation for excellence in precision, reliability and scalability, ECOTECH's innovative data logging solutions build on and complement our comprehensive suite of environmental monitoring products and services.

"Being able to diagnostically log parameters and predict what will happen before it happens means we can fix and manage our gas analysers quickly. Saves us time and money."

ABOUT ECOTECH: Together we create solutions that shape the future

For over 40 years ECOTECH has pioneered innovative solutions in environmental monitoring for air, water, gas, noise, vibration, blast, fine particulate and dust. Headquartered in Australia, and certified to internationally recognised quality standards, ECOTECH operates in more than 80 countries, managing and maintaining over 500 real-time environmental monitoring sites consisting of thousands of individual pieces of precision equipment. ECOTECH is part of the ACOEM Group.

ABOUT ACOEM: Reduce your environmental impact

The ACOEM Group is a global leader in providing sustainable solutions for the development of smart cities of the future. It is committed to helping companies and public authorities meet challenges by offering products and services that:

- Prevent and control air, noise and vibration pollution
- Increase the productivity and reliability of industrial machinery
- Contribute to the development of effective, robust & noiseless solutions
- Protect soldiers, sites and vehicles in military theatres of operation.

Across the world, ACOEM's 700+ employees innovate in the measurement, analysis and control of environmental parameters through its 01dB, ECOTECH, DYNOPTIC, TUNNEL SENSORS, AIR MONITORS, ONEPROD, FIXTURLASER, MEAX, VIBRALIGN and METRAVIB brands.

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