Smart Wireless Solutions

Austen Building Group (ABG) offers a next generation range of smart wireless sensors designed to support predictive maintenance, real-time monitoring, and operational efficiency across a wide range of sectors including healthcare, aged care, commercial, industrial, agricultural, scientific and government facilities.

These plug-and-play sensors are designed for rapid deployment, minimal infrastructure disruption, and instant data visibility through our secure online portal, accessible via desktop and smart devices.

Features

Sensors

- Sensor batteries last 4 to 9+ years
- Sensors hold 2000 to 4000 readings in memory if connection with gateway is lost
- Sensors have a wireless range of up to 365m non-line-of-sight
- Sensors can activate controllers to switch relays ON/OFF to perform tasks
- Sensors come with a technical specification data sheet
- Sensor calibration is achievable using the online portal and one other sensor

Gateways

- Gateways have a battery backup
- Gateways hold 30,000+ sensor readings in memory if power is lost
- Gateways come with a technical specification data sheet

Online Portal

- Online portal is accessible from any PC or smart device

Training

- Online portal training is provided to all users free of charge
- Online portal super user training is available upon request (manage your own system)

Support

- Ongoing online portal support is available

Subscriptions

- Annual and quarterly subscriptions are available
  - Includes monitoring of installed devices (does not include cost of devices, installation, maintenance and replacement batteries)

Security

- Sensor readings are protected by Encrypt-RF® Security (Diffie-Hellman Key Exchange + AES-128 CBC)

Savings

- ABG Smart Wireless Solutions can replace manual equipment checks and their associated costs

Gateways

Cellular Gateway
12.7 x 9.7 x 3.8cm

EGW4 Ethernet Gateway
12.7 x 9.6 x 3.8 cm

Industrial Cellular Gateway
14.8 x 9.0 x 5.5 cm

Sensors

Accelerometer – Impact
11.1 x 4.4 x 2.8 cm

Temperature with Probe
11.1 x 6.3 x 2.8 cm

Infrared Motion Detection
11.1 x 6.3 x 2.8 cm

Control [output]
12.7 x 3.5 x 3.3 cm

Humidity
11.1 x 6.3 x 2.8

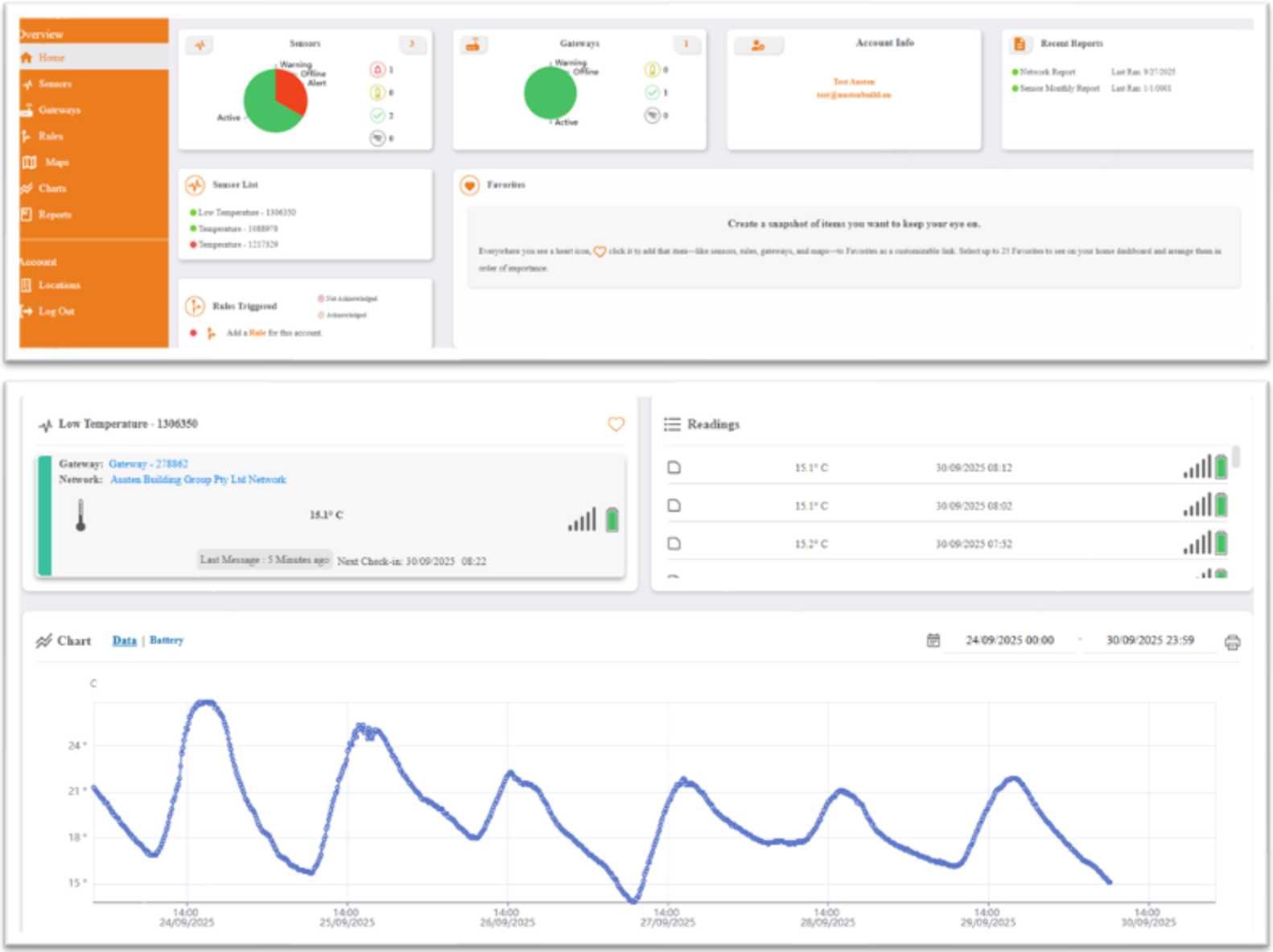
Carbon Dioxide
11.1 x 6.3 x 2.8cm

Water Detection Puck
7.62 x 2.54 cm

Voltage
11.1 x 6.3 x 2.8

Note: above measurements do not include antennas, probes or leads

Online Portal Snapshot



Example Floor Plan

Sensors and Applications

AC and 3-Phase Current Meters

- Monitor power consumption for lighting circuits and 3-phase supply
- Economise machine use without performing additional wiring
- Gain valuable insights on machine health, HVAC performance, or supply issues via current usage.

0-20mA Current Meter

- A staple in R&D departments, academic labs, healthcare settings, and other areas that rely on industrial and/or scientific sensors
- Monitor third party equipment that is crucial but not connected to an alarm system such as pumps, air-conditioning, generators, and incubators
- Interfaces with pH sensors, acceleration sensors and more.

Voltage Detection

- Available in 200 VDC and 500 VAC
- Monitor the on/off status of equipment, machines, power or battery levels.
- Measure voltage in connecting devices
- Ideal for sprinkler systems, HVAC, power couplings, solar equipment and more.

Voltage Meter

- Identify potential differences between two electrical points at user-defined intervals
- Detects voltages that have fallen below or risen above user defined thresholds.

Temperature

- Ideal for areas where extreme temperatures could degrade performance, assets, or safety
- Use for incubators, vaccines, food storage, ovens, food warmers, freezers, HVAC systems, facilities, laboratories, liquid nitrogen tanks, and more
- Available with built in humidity sensor.

Humidity

- Measures relative humidity in facilities and enclosures, helps control mould
- Available with built in temperature sensor
- Ideal for museums, data centres, manufacturers and facilities to protect artifacts, electronics, sensitive materials and mission-critical machines

Output Controllers

- Uses relay switches to control equipment, plant and machinery such as pumps, extraction fans, generators, air-conditioning, doors and more.

Accelerometer (vibrations / movement)

- Track vibrations or abrupt movement in machines, equipment, supplies, transportation, structures or other key assets
- Monitor and measure the number of vibrations, frequency, and sudden movement or lack of movement of surfaces and objects
- Can be used with impact detection, tilt sensor and or G-force sensors
- Guides preventative maintenance and helps determine lifespan, barrier breaches or excessive vibrations that may indicate imminent failure.

Air Quality

- Measure PM_1, $PM_{2.5}$, and PM_{10} concentrations in the air
- Protect occupants and ensure safety in mines, production facilities, commercial kitchens and more.

Carbon Dioxide (CO_2)

- Monitors facility ventilation quality and HVAC calibration
- Use in greenhouses and modern grow spaces to optimise crop growth
- Assists you to maintain wellness and productivity.

Carbon Monoxide (CO)

- Use to monitor jobsites, offices, carparks and small residential complexes for carbon monoxide.

Hydrogen Sulphide (H_2S)

- Use for underground telecom vaults and many other enclosed industrial, agricultural, and commercial areas
- Protect against ignition sources posing a risk of flashbacks or explosions.

Motion Detection

- Uses infrared sensing to monitor area access
- Interfaces with control switches to turn air-conditioning and or lights on/off upon enter/exit and more

Dry Contact

- Use for production line operations such as tracking forklift seat occupation
- Monitors after hour access, doors, windows or cabinets open/closed or left open
- Can also be used for service call buttons and emergency buttons.

Pulse Counter

- Monitors water usage
- Integrate with a dry contact or mechanical switch to count the actuations.

Thermocouple

- Available with a hardwired needle-style probe or K-type quick connector for ranges up to 400°C
- Great for tracking high-temperature processes and machinery
- Can also be used in wet or damp environments.

Water Detection (probe, rope and puck)

- Alert for leaks in any environment
- Used in ducting, roof ceiling spaces, data centres
- Water Rope and Puck sensors measure water presence or absence.

Differential Air Pressure

- Measures pressure differences between two ports
- Ideal for food service, healthcare, academia, clean rooms, pharmaceutical production, commercial kitchens and HVAC.

Pressure Meters

- Measure line pressure such as gas, liquid, or vapour in machines, pumps or specialised areas
- Monitor gases in food manufacturing
- Ideal for use in laboratories, negative pressure tents, and clean rooms.

Light Meter

- Track light intensity in lux and PAR
- Use for any application where light affects critical assets.

Resistance

- Read resistance across resistive load up to 250K Ohms
- Ideal for industrial or scientific equipment.

Ultrasonic Range

- Measure distances between the sensor and an object to detect liquid levels, track inventory, or monitor traffic
- Ideal for manufacturing, logistics, and process industries.

Key Benefits

Predictive maintenance: identify issues before failure and schedule repairs proactively
Cost savings: reduce emergency callouts, avoid asset replacement, and lower insurance claims
Data transparency: real-time dashboard access from mobile / tablet / desktop
Easy installation: no invasive cabling or complex integrations required
Compliance: support for essential service reporting, environmental audits, and safety standards.

Client Online Portal Access

Clients receive a secure login to their ABG online portal, enabling live tracking, downloadable reports, and automated alerts. Our system also includes push notifications for proactive management.

Why Choose ABG for Wireless Sensors?

- ISO certified for quality, safety, and environmental service delivery
- National coverage with technician access across all states
- Seamless integration with your existing facility maintenance contracts
- Dedicated support team and onboarding walkthroughs
- Flexible deployment models for individual sites or national portfolios.

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