Airedale
APPLIED THERMAL INNOVATION

Controls | BMS / ACIS

Building management

Controls to increase efficiency and transparency

www.airedale.com

BRITISH MANUFACTURER | ENERGY EFFICIENCY | CONTROLS | SERVICE | TRAINING

Delivering whole solutions

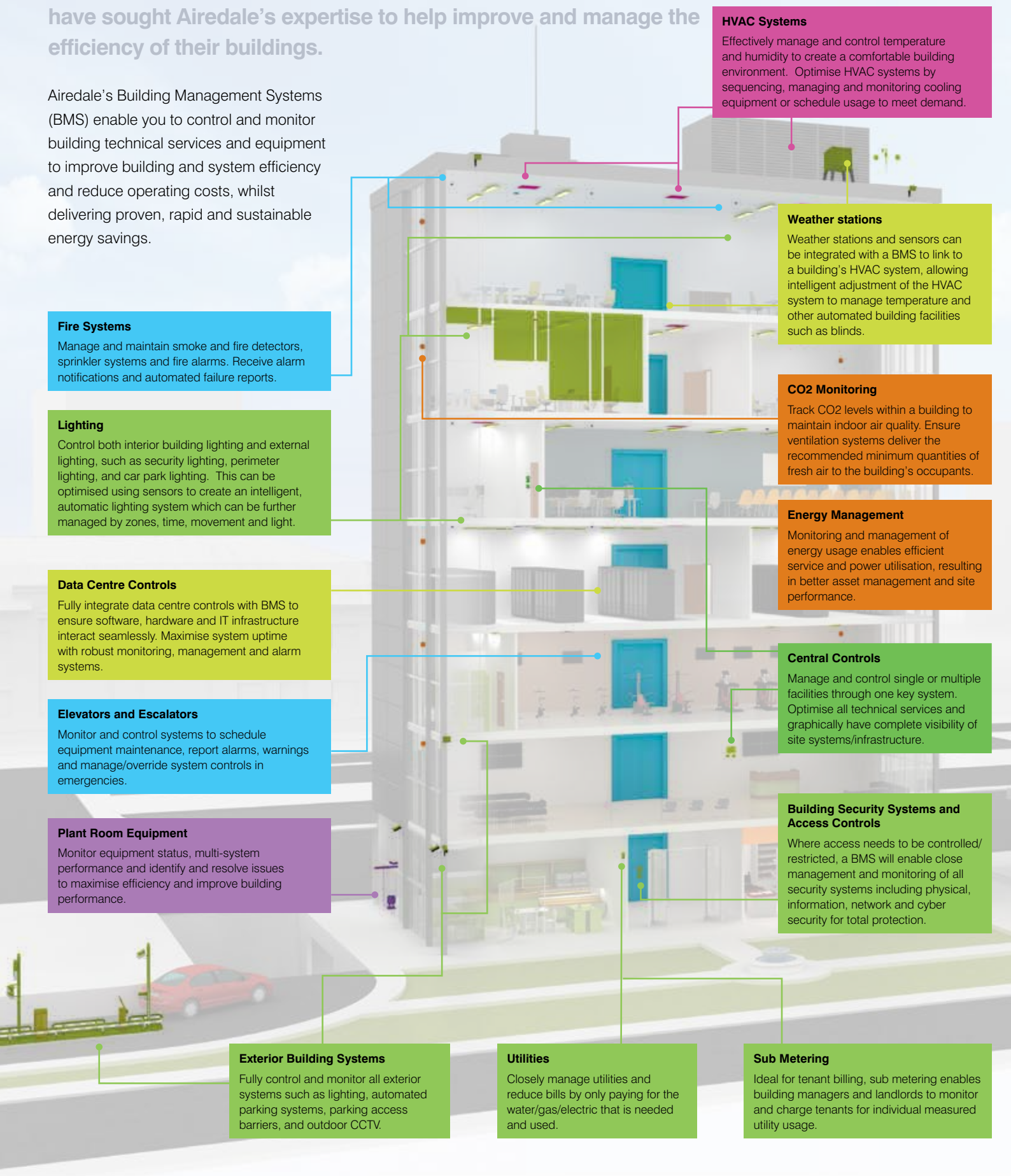
For more than 40 years, building owners, managers and facility managers have sought Airedale's expertise to help improve and manage the efficiency of their buildings.

Delivering whole solutions

Tailored specifically to your needs

For more than 40 years, building owners, managers and facility managers have sought Airedale's expertise to help improve and manage the efficiency of their buildings.

Airedale's Building Management Systems (BMS) enable you to control and monitor building technical services and equipment to improve building and system efficiency and reduce operating costs, whilst delivering proven, rapid and sustainable energy savings.



HVAC Systems

Effectively manage and control temperature and humidity to create a comfortable building environment. Optimise HVAC systems by sequencing, managing and monitoring cooling equipment or schedule usage to meet demand.

Weather stations

Weather stations and sensors can be integrated with a BMS to link to a building's HVAC system, allowing intelligent adjustment of the HVAC system to manage temperature and other automated building facilities such as blinds.

Fire Systems

Manage and maintain smoke and fire detectors, sprinkler systems and fire alarms. Receive alarm notifications and automated failure reports.

CO2 Monitoring

Track CO2 levels within a building to maintain indoor air quality. Ensure ventilation systems deliver the recommended minimum quantities of fresh air to the building's occupants.

Lighting

Control both interior building lighting and external lighting, such as security lighting, perimeter lighting, and car park lighting. This can be optimised using sensors to create an intelligent, automatic lighting system which can be further managed by zones, time, movement and light.

Energy Management

Monitoring and management of energy usage enables efficient service and power utilisation, resulting in better asset management and site performance.

Data Centre Controls

Fully integrate data centre controls with BMS to ensure software, hardware and IT infrastructure interact seamlessly. Maximise system uptime with robust monitoring, management and alarm systems.

Central Controls

Manage and control single or multiple facilities through one key system. Optimise all technical services and graphically have complete visibility of site systems/infrastructure.

Elevators and Escalators

Monitor and control systems to schedule equipment maintenance, report alarms, warnings and manage/override system controls in emergencies.

Building Security Systems and Access Controls

Where access needs to be controlled/restricted, a BMS will enable close management and monitoring of all security systems including physical, information, network and cyber security for total protection.

Plant Room Equipment

Monitor equipment status, multi-system performance and identify and resolve issues to maximise efficiency and improve building performance.

Exterior Building Systems

Fully control and monitor all exterior systems such as lighting, automated parking systems, parking access barriers, and outdoor CCTV.

Utilities

Closely manage utilities and reduce bills by only paying for the water/gas/electric that is needed and used.

Sub Metering

Ideal for tenant billing, sub metering enables building managers and landlords to monitor and charge tenants for individual measured utility usage.

Save energy, save money

Reducing energy consumption is a key driver for many businesses. As energy costs continue to increase, building operation and cooling costs also increase. Yet small changes and simple upgrades to your BMS or cooling system will ensure your building is running at its optimum, dramatically reduce your energy consumption and provide significant cost savings.

Energy saving upgrades currently available:

- EC fan replacements
- Electronic Expansion Valves (EEVs)
- Controls and BMS replacements
- Variable speed drives
- Refrigerant
- Inverters

Products and services

Offering flexibility and choice

As well as Building Management Systems, Airedale offers a wide range of other products and services that help to manage and improve the performance of cooling systems and other building services including:

- Existing building energy surveys and reports, energy and carbon reduction
- BMS and Energy Health Checks
- BMS upgrades to software and controls
- Energy monitoring upgrades with installation and support
- Control system design
- Project Management
- On-site project handover
- Bespoke in-house design and manufacture of control panels
- Site installation and commissioning
- Tailored individual graphics
- Customer support and training
- 24/7 Airedale technical support available

ACIS™ BMS

One source, complete visibility

ACIS™ BMS, Airedale's exclusive Building Management System is an innovative, scalable and future-proof solution which has been specifically designed to enhance system performance, drive down operational costs and aid decision making for a wide range of building services.

Offering a more pre-emptive BMS solution, ACIS™ is able to make decisions, delivering a higher level of building intelligence. With its simplistic and intuitive interface, ACIS™ BMS allows you to gain access anytime, anywhere to your building's systems, enabling you to manage building services from any manufacturer across multiple sites through a single integrated system.

A wide range of features enable total system efficiency to be evaluated, puts the user in full control, provides complete visibility of all building services and offers total facility integration.

Complete Visibility of Building Infrastructure

- Increase building and system transparency
- Identify and resolve service issues quickly
- Single, one touch solution to collate all data
- Flexibility to grow with site requirements

Secure Remote 24/7 Access

- Secure remote account login with defined user level access
- Range of security system features with intelligent parameters
- Manage single or multiple sites

Extensive Analysis, Monitoring and Diagnostic Tools

- Monitor and measure building performance to create progressive actions, make system corrections and optimise building performance
- Produce automated and scheduled detailed reports which can be emailed directly to recipient
- Gain a visual understanding of building and system efficiency through alarm logging and graphing functionality
- Forecast building operating costs and make targeted cost saving decisions
- Option to transmit data to Airedale's central server system providing extra layer of security and resilience

Fully Compatible

- Can be fully integrated with Airedale or other manufacturers equipment
- Ideal retrofit solution
- Fully customisable
- Incorporate with all major communication protocols, a wide range of proprietary protocols can also be licensed to ACIS™

Standard Protocols

- BACnet™ IP and MSTP
- MODBUS RS485 and TCP
- SNMP
- Lonworks FTT and IP
- KNX IP
- M-Bus

Proprietary Protocols

- Trend IQ2, IQ3 and IQ4
- Mitsubishi
- EnOcean / WEMS
- Honeywell Galaxy
- Dali / Lighting
- Various Danfoss Protocols

Immediate Notifications

- Maximise system uptime with instant warnings on alarms and system failures
- Email and/or SMS alerts for improved monitoring
- Scheduled alerts for maintenance and reminders

Live Capture and Historical Energy Usage

- Identify and highlight potential energy savings
- Detect power issues
- Reduce energy consumption and energy costs
- Data analysis and reporting enables cost driven decisions to be made

Visualisation and Graphical Representation

- Graphical, web browser based interface to the BMS
- Intuitive data representation

Optional 24/7 Support

- Service and maintenance plans available
- 24/7 emergency cover available
- Direct and immediate access to the latest system upgrades and software developments

The full package

Control system design, manufacture and testing

Airedale fully manages controls projects, taking them from concept to design, right through to delivery and testing, eliminating the need to outsource any project elements.

1

Design

With an in-house design team, state-of-the-art test facilities and the latest design software, Airedale develops bespoke control systems to suit individual requirements/sites.

2

Manufacture

With a 23,000 m^2 first-class manufacturing facility, Airedale manufactures all control systems on site. Airedale can create custom built panels, small pump starter panels, bespoke drive systems or large intelligent motor control centres, which fully comply with all relevant safety standards such as ingress protection, form, colour, material etc.

Control panels can include simple relay logic, PLC's, variable speed drives, data acquisition, HMI, switch gear, power panels and touch screen technology. Drawings can be issued prior to manufacturing commencement and all assemblies are factory tested prior to shipment.

3

Installation

From the smallest outstations, to the largest floor standing enclosures and multiple sites, Airedale delivers controls projects for a wide range of sites and applications.

4

Commissioning

Airedale provides a full commissioning service carried out by professionally trained and experienced system engineers to ensure that all equipment is installed and set up to function correctly, in order to optimise system performance and improve efficiencies.

5

Training

Airedale system engineers can deliver a full on-site induction to ACIS™ BMS. This is useful for those responsible for daily system operation (if not covered by an Airedale service and maintenance contract).

6

Service & Support

Airedale also provides aftersales support services, such as service and maintenance plans. These contracts offer varying levels of technical support, from basic cover, to complete 24/7 emergency cover and cater for both Airedale and all third party equipment to ensure that systems continue to run smoothly.

Our customers

Our customers

Proven performance

BAE SYSTEMS: EXTENSIVE BMS PROGRAM

BAE is the UK's largest supplier to the UK Ministry of Defence (MoD), employing more than 34,000 people across fifty different UK locations. Working with Joule Consultants, Airedale delivered an extensive programme of BMS and capacity control upgrades at one of its major Military Air and Information sites.

The project involved retrofitting new EC fans, chilled water valves and upgraded controls to over seventy CRAC units at its Warton site data centre to increase cooling performance and deliver significant energy efficiencies. The upgrades have enabled BAE to achieve annual cost savings of 70-80% in terms of energy costs, equivalent to £350,000.

BAE SYSTEMS

UNIVERSITY OF PORTSMOUTH

The University of Portsmouth had a requirement for a first class, high density, energy efficient cooling system for its new £2.25m data centre. With Sudlows, Airedale delivered a complete cooling and controls solution which included the installation of several Airedale products and ACIS™ BMS.

ACIS™ BMS delivers intelligent, graphical remote management of the data centre and integrates with multiple protocols to monitor all site elements through one system, including the new Airedale products, SmartCools™, OnRaks™, Airedale Chillers, the external generator, UPS room, water leak detection system and the fire and suppression system. This has resulted in significant energy savings for the university and a projected PUE level of 1.14 (load dependent).

University of Portsmouth

ICELAND: REDUCING ENERGY COSTS

Iceland is a leading high street supermarket chain with 800+ stores across the UK selling frozen and chilled food and groceries. Airedale installed ACIS™ across all Iceland stores with the aim of maintaining specific store environments and achieving significant energy cost savings. ACIS™ offered the perfect solution for Iceland's requirements for managing building services across multiple and individual sites and was able to easily integrate into existing store systems.

Since system implementation, energy costs in Iceland stores have reduced by up to 10% through tighter, more intelligent levels of control. Based on these results, Iceland has managed to reduce its energy spend by £6,000 per store per annum, therefore creating total energy cost savings of £4.8 million each year.

Iceland

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