

# **IQ<sup>TM</sup>5**

**A NEW ERA IN  
BUILDING  
CONTROL  
DIGITISING  
TODAY'S BUILT  
ENVIRONMENTS**



**TREND**





TREND IQ5 /

# HERALDING A NEW ERA IN THE BUILDING CONTROLS ENVIRONMENT

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# IQ5<sup>TM</sup>





WHAT IS IQ5 /

# THE ROLE OF BUILDING CONTROLS IS RAPIDLY CHANGING





# WHAT IS IQ5?

Building Controls now need to be more flexible than ever, offering seamless integration between multiple systems, while also delivering even more sophisticated insights and control for building managers and occupants.

It has also become an integral element of every building – it is not just an add on or an afterthought to an existing building, it is fundamental to the way each building lives and breathes and presents a backbone to the way every built environment operates.

The Trend IQ5 system has been developed specifically to address these requirements while also ensuring a seamless upgrade path for legacy installations and a future proof offering for many years to come.

As such there are 4 key functions that your control system must provide:



## 1. Secure:

IQ5 has been designed with security in mind, in order to safeguard your building portfolio from cyber security threats. It is based upon ISA 62443 security level 3 guidelines, which looks at roles and responsibilities of the building occupants and ensures a risk-based approach to prevent and manage any potential threat.



## 3. Occupant Wellbeing and Productivity:

Whatever your key requirement, be it wellbeing or productivity, IQ5 is designed to ensure your building can meet its KPI's. It controls, monitors, measures and provides feedback on the working environment, allowing you to set your priorities, safe in the knowledge that IQ5 puts informed decision-making capability at your fingertips. risk-based approach to prevent and manage any potential threat.



## 2. Compliant:

Ensuring that your built environment meets legislation in your region is fundamental to your operation. IQ5 is compliant with the very latest specifications ie BACNET B-BC, meets modern IT standards and is also adapted to suit local legislation and technology requirements. This also means IQ5 will integrate seamlessly with other building systems such as lighting or operate securely within your IT infrastructure.



## 4. Protecting your investment

IQ5 ensures you have the flexibility to adapt and extend a site throughout the building life without the need to remove or replace systems in order to improve control. Whether your built environment uses IQ1's, IQ2's, IQ3's or IQ4's, IQ5 will provide seamless control and peer to peer communication to any earlier controllers. Your investment is secure and future-proof.

MARKET FORCES /

90% OF CEO'S  
BELIEVE  
THE DIGITAL  
ECONOMY  
WILL IMPACT  
THEIR  
INDUSTRY,  
BUT LESS  
THAN 15% ARE  
EXECUTING  
ON A DIGITAL  
STRATEGY\*

\*MIT Sloan and Capgemini

# DIGITISATION

In basic terms, a Building Energy Management System (BEMS) manages and controls all of the HVAC elements of a building i.e. moving air and water around a built environment and then tells us if something is wrong or needs to be adjusted.

## But in reality it is so much more than that...

You need to know exactly what is being controlled and the desired outcome or status of each piece of plant. You need to be notified of problems or faults, but ideally you want advance warning of a potential issue before it breaks and confirmation that the maintenance team have already been notified.

With IQ5, predictive maintenance of assets is assured. IQ5 also integrates with a wide range of environmental controls equipment that promote healthy buildings by proactively monitoring CO<sub>2</sub> levels, humidity, air quality and particulates – healthy working environments are naturally more productive.

With IQ5, **resilience** is our watchword; superior speed of data transference alongside the unique pre-determined or **'prioritised control'** are designed to ensure key controller functionality or signals from crucial equipment is always prioritised over less important comms, meaning uptime is assured. Being based on the toughest cyber security standards also ensures **all data is transferred securely** at every level of the system, a key consideration in most modern applications. If there is a need to switch a controller off, **'superfast restart'** is crucial for maintain uptime, particularly in critical areas.

And finally, being a fully modular system, with i/o modules that simply slide into place, IQ5 is uniquely able to flex and expand as your building demands change over time – your system is **futureproofed**.



Control of a built environment is now in the hands of many people, from building managers to FM teams to maintenance, not to mention employees, staff and even patients in a ward or teachers in their classrooms. Control has moved out of the plantroom and become a necessity.

IQ5 ensures that each user has the **appropriate level of control**, for example only the IP port relevant to them, whilst another user can see the entire building network. This gives you ownership and unprecedented control over who has access to the system. Users can be simply added to or removed from the IQ5 which are then **synchronised across the entire site**, along with associated passwords, so there is no mismatch in the data removing the potential for error.

**Informed decision making.** On a broader level, IQ5 works seamlessly within the overall Trend system, as the ideal accompaniment to optimise the powerful IQVISION Supervision software for intuitive graphics and customised dashboards. IQ5 organises and delivers vast amounts of **secure data in real-time** for use in Digitised Maintenance applications such as Forge and energy reduction offerings like IQENERGY.

**Future advancements based on proven pedigree.** IQ5 means you can make the most of your existing investment, with a **low lifetime cost** and reduced installation burden by **using existing comms cabling**. It can readily communicate with earlier IQ<sup>TM</sup>1,2,3 or 4 controller variants in compatibility mode or elevate your building performance to take advantage of the latest technological advances.



MARKET SECTORS/

# THE RIGHT SOLUTION TO MEET YOUR EXACT REQUIREMENTS



# MARKET SECTORS



## IQ5 for Healthcare

Life critical decisions are made every second of every day within healthcare - based on key information available at that precise moment. These decisions can be impacted by resources i.e. availability of an operating theatre, air quality or patient safety concerns. Staff and patients rely on a Trend Building Energy Management System that delivers accurate data, at speed, across multiple platforms.

- Faster processing of data for critical decision making, maximising uptime and performance
- New technology to enable Smart Hospitals whilst maintaining existing infrastructure and protecting investment of legacy equipment
- Integration to business critical platforms such as Smart Enterprise Asset Management (SEAM) driving digital strategies
- Advanced Cyber Security as standard, minimising the need for further security firewalls



## IQ5 for Commercial

Office environments need to be healthy, productive and energy efficient. Advanced cyber security protection is a must, protecting the myriads of high speed data transfers needed for informed decision making and control. Built-in flexibility enables usage or control changes whilst maximising your previous infrastructure investment; allowing you to plan and budget your estate upgrades to unlock Smart building deliverables.

- Cyber Secure at its heart with authenticated and encrypted communications
- Flexible network and protocol integration options for unlocking Smart building requirements
- Small footprint, compact IO delivers powerful building management control



## IQ5 for Education

Ensuring correct lighting and indoor air quality conditions is essential to keep staff and students safe, comfortable and productive. Your estate teams can rest assured that they are able to easily monitor and control vital resources to deliver against energy and carbon saving targets, ROI on energy projects and wellbeing goals. Similarly, keeping our youngsters safe whilst providing multi-faceted on line resources requires advanced levels of Cyber Security.

- 'Secure by design' approach based on latest Cyber Security standards
- Integration with asset management platforms such as CAFM with ease
- Wellbeing and indoor air quality indicators available in real-time
- Improved role based system interaction without added complexity for users
- Better close control of research bio-labs and critical science areas for fast response
- Supports unification/collaboration between FM and educational teams



## IQ5 for Data centres

The Data Centre industry plays an increasingly important role in supporting the global economy and day to day life as our demand for connectivity increases. Sustainability, resilience, speed of deployment is critical – downtime and outages aren't an option!

- Speed of deployment with remote commissioning of I/O modules via mobile app
- Resilient control of your critical infrastructure with prioritised deterministic control engine
- Seamless communication with legacy Trend controllers and I/O modules on T1L network cable
- Highly secure environments which need to meet ISA 62443 security level 3 guidelines
- Utilisation of Edge analytics built into the controller for tracking live critical infrastructure performance data

PEACE OF MIND/

# DESIGN AND DEPLOY THE SYSTEM YOU ENVISAGE





# PEACE OF MIND

Our Solutions Design experts make it easier for you to design and deploy the systems you envisage. We help develop customised specifications that are focused on the outcomes both you and your customers need. We also advise on how best to futureproof your built environments, ensuring future challenges are met.

Typically this involves:

- Assist in specification development and delivery
- Explain and demystify the 'dark art' of BEMS
- Provide access and support for standard strategies and specifications
- On line and in person specialist training and education resources
- Comprehensive range of Continuous Professional Development (CPD) courses
- Help you raise the importance of BEMS with end users
- Help to train and develop the next generation of BEMS and controls specialists
- Specialist controls expertise provided by applications solutions architects
- Partner with controls and industry trade associations for Best Practice guidelines



About **TREND** Control Systems:

With a worldwide distribution and support network covering over 50 countries, Trend Control Systems is a major international supplier of building energy management solutions (BEMS). The vast majority of Trend's control systems are supplied, engineered and commissioned by approved systems integrators.

Trend Control Systems is part of Honeywell Building Technologies.

[LEARN MORE HERE.](#)



For more information,  
please visit the  
**IQ5 webpage** ([link](#))  
or contact one of  
our team today.

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The logo for Trend Control Systems, featuring the word "TREND" in a bold, orange, sans-serif font. The background of the entire page is a photograph of a modern glass skyscraper at dusk, with its lights reflecting on a body of water in the foreground.