

# **Energy Controls Product Overview**



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# **CP** Electronics –

# A Leading Force in Lighting Controls

Around 20% of the world's electricity is used for lighting. Much of it is wasted. Unoccupied offices, factories and public spaces often remain brightly lit, squandering money and energy. It's bad for the bottom line – and the environment.

#### Innovation and quality – bar none

At CP Electronics, we're making an international reputation for delivering energy saving controls. With our commitment to innovation, we hold a number of patents. We have a relentless focus on quality and reliability.

From a sports stadium to a corporate boardroom – we work with both private companies and public sector organisations to achieve their energy saving goals.

We're so confident of our quality and testing regime that we offer a five year warranty across the range. Our products are backed by dedicated sales, aftersales and technical support teams: on site, on the phone and online.

#### **Technical Services**

Our Technical Services teams deliver unrivalled levels of support to customers including training, specification drawings, installation, commissioning and maintenance.

#### **Building Information Modelling**

We have integrated a number of ranges into the Building Information Modelling environment to assist all areas of project activity, from design and construction through to facilities management and beyond.

As a brand of Legrand, we are committed to the BSI BIM objects Kitemark<sup>™</sup>. This ensures that processes are in place for the creation and management of BIM objects, ensuring their delivery is maintained and updated to reflect any future changes.

For further information, please visit www.cpelectronics.co.uk/BIM.

#### **CPD Seminars**

Certified by the Construction CPD Certification Service, CP Electronics offer in-depth focused lighting control CPD courses on topics such as standalone and fully addressable lighting control solutions.







Certified IPC-A-610













# Room by room solution



#### Standalone Presence Detectors

Standalone presence detectors provide flexibility in controlling lighting in circulation areas. Presence detectors should ideally be placed to cover all entry points, and respond to traffic behaviour.

The control strategy can include a maintained level of lighting with lux level sensing.

### Room by room / floor by floor solutions



#### Vitesse Modular

Vitesse Modular is a lighting connection system which has the flexibility of a standalone strategy but introduces more distributed control, with a pluggable and modular wiring format. 2-way to 16-way modules increase customisation resulting in low wastage lighting control.



#### **Vitesse Plus**

Vitesse Plus takes floor by floor solutions to the next level. As well as drawing on the benefits of intelligent standalone detectors and modular wiring, it allows pre-set configurations, and step down illuminance, both vital to effective lighting control.

Each unit can drive four presence detectors and also communicate with local lighting control modules via RJ45 patch leads.



### **Buildingwide systems**



#### An-10

As a fully functional wireless system, An-10 meets the demands of challenging building structures and prohibitive fabrics (e.g. asbestos) which restrict additional control wiring.

Every An-10 device within a system uses a number of different address codes to identify its place, and how it interacts with other devices.



#### RAPID

The apex of lighting control solutions, RAPID brings together all the features of fully addressable, networked control. With presence or absence functionality, graduated dimming and maintained illuminance as before.

RAPID can be interfaced with a 'front end' PC for ease of monitoring and reconfiguration.

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### **Standalone Products**

Our wide range of standalone PIR detectors and microwave presence detectors are designed to reduce the amount of time lighting is left on unnecessarily, for example if an area is unoccupied or if there is sufficient natural light.

A presence detector monitors the detection zone for occupancy; if a person is sensed then the detector will automatically turn the lighting on. When the area is vacated, the lighting will turn off after a preset time delay. Most of our PIR detectors and microwave detectors have a built in light level (LUX) sensor which will keep the lighting off if there is enough natural light available.

Controlling lighting with a presence detector can save up to 60% of lighting energy costs dependent on occupancy behaviour and the amount of natural light available; our PIR and microwave presence detectors can also be used to control heating and ventilation.

#### Standalone detector suitability

Standalone detectors are best suited to controlling lighting in a single room or area, e.g. an office or corridor.

In larger spaces multiple detectors can be employed to ensure that the entire area is covered.



#### **Key Features**

- Room by room lighting control
- Presence or absence detection
- LUX level sensing
- Switching or dimming
- Single circuit control.

#### Low Temperature Detectors

Our Minus30 range of lighting controls is specifically designed for the cold storage and refrigeration sector, performing down to aggressive -30° temperatures.



#### **KNX Presence Detectors**

CP Electronics brings its extensive functionality to KNX, the worldwide standard for unifying all communication between intelligent devices that light, heat and ventilate homes and buildings.





#### Standalone Microwave Presence Detectors



#### Standalone Light Level Controls



Compact, flush mounted photocell switches

#### Available versions

- DALI/DSI dimming
- Analogue dimming.

- Flush or surface mounted
- Adjustable preset levels for more control
- Adjustable time delay prevents nuisance switching
- Dimming version available to provide a maintained level of illuminance.



### Vitesse Modular

As its name suggests, Vitesse Modular relies on a modular design which means you simply add 'modules' as and when they are needed. Packed with innovative features, Vitesse Modular is a cost effective method of providing power and control for lighting installations in industrial, commercial and retail buildings.

#### Works in combination with our presence detectors

Allows groups of luminaires to be controlled by a single detector.

#### It grows and adapts to suit the installation

From 2-way to 16-way using extender modules... it couldn't be simpler.

Once Vitesse Modular is installed, modules can be added (or removed) depending on future requirements.

#### **Two-channel flexibility**

Vitesse Modular 2-channel switching is ideal for installations that have essential and non-essential supplies.

#### **Dedicated corridor solution**

Vitesse Modular offers a dedicated corridor solution. Switching and dimming versions are available in a pre-wired (5 metres of cable) configurations enabling Vitesse starter modules to be easily connected together and controlled via a single detector.

#### **Mounting options**

Vitesse Modular provides easy installation options for all locations including slab mounting, channel nut mounting, BESA box mounting and strut clip mounting.



- Room by room, floor by floor lighting connection and control system
- LUX level sensing
- Switching or dimming
- Connection and control system
- Compatible with our modular wiring solution
- 2 to 16-way configurations in steps of two.



#### Starter modules

The system begins with a starter module. Once installed, modules can be added or removed to accommodate new layouts and uses.

The 2-way starter module offers a low cost entry point when only two outputs are required. The switching 4-way and dimming 6-way modules can be used as standalone units providing 4 or 6 outputs or can be extended to 8, 10, 12, 14 or 16 outputs making it adaptable to a wide variety of room layouts.

#### **Extender modules**

The extender module is used to increase the number of outputs for the 2-way or 4-way starter modules.

A total of three extender modules can be easily added to any starter module to create an up to 16-way lighting connection system. Vitesse Modular can be reconfigured at any time should requirements change.



#### **Presence detectors**

Adds presence detection functionality to Vitesse Modular when required. Flush mounted ceiling PIR and Microwave presence detectors – includes compact, miniature and adjustable head versions.



#### Leads and connectors

Pre-wired detector and luminaire leads reduce installation times and ensure reliability.

Individual connectors, extender leads, detector leads, tee modules and a ceiling rose kit provide additional flexibility.

All CP Electronics pluggable products use the industry standard, series 166 connector format for maximum compatibility.



#### **Plug-in modules**

#### SELV & An-10

These plug-in modules allow communication between Vitesse Modular and the An-10 wireless lighting control system. See page 12 for more information.





### **Vitesse Plus**

With its wide range of features, flexibility and simple commissioning Vitesse Plus is the perfect lighting control solution for classrooms, corridors, open plan offices and retail environments.

#### Time-saving pre-set configurations

The Vitesse Plus range with its unique built-in preset configurations provides simple commissioning and maximum flexibility.

We have developed a collection of pre-set lighting control schemes which suit a wide range of requirements. Simply match your application to one of our pre-sets and activate using our programming handset. Alternatively, you can customise elements individually to achieve a bespoke configuration. A sophisticated, lighting control system like Vitesse Plus offers a wide choice of configurations, making it fully adaptable to the building space.

For more information and to view the complete collection of pre-sets, please visit our website.

#### Flexible and feature packed

LCMs can be linked to each other using RJ45 patch leads. This allows an input for one LCM (presence detector or switch input for example) to effect a change on another LCM.

Each Vitesse Plus LCM can monitor up to four detectors allowing it to switch or dim channels independently to provide maximum energy savings.

Vitesse Plus is also compatible with our Modular Wiring solution to allow simple plugand-play connectivity for each channel.



- Room by room, floor by floor lighting control system
- Presence or absence detection
- Presence detection
- LUX level sensing
- Switching or dimming
- Graduated dimming
- Step down illuminance
- Emergency lighting test
- Open port function
- Compatible with modular wiring solutions
- Corridor hold
- SELV switch inputs
- Scene setting.



#### Pluggable lighting control modules

VITP7-MB pluggable LCM provides 7 channels and 12 outputs. In addition it has 11 SELV connections and 4 detector inputs. The Vitesse Plus pluggable is particularly suitable for installations where a ceiling void is present.



#### Hardwired lighting control modules

VITP7-HW and VITP7-DIN are hardwired 6-channel lighting control modules with SELV outputs and 4 detector inputs. They are ideal for installations where cabling is restricted to conduit, is concealed or inaccessible due to lack of suspended ceiling void.



#### Presence detectors

Adds presence detection functionality to Vitesse Modular when required. Flush mounted ceiling PIR and Microwave presence detectors - includes compact, miniature and adjustable head versions.



### **Scene control**

Scene selection allows the recall of pre-programmed lighting levels to create different moods or to suit different uses within an environment.

When used in conjunction with Vitesse Plus LCMs and suitable dimming luminaires, different lighting scenes can be achieved for applications such as classrooms and meeting rooms.









#### Leads and connectors

Pre-wired detector and luminaire leads reduce installation times and ensure reliability.

Individual connectors, extender leads, detector leads, tee modules and a ceiling rose kit provide additional flexibility.

All CP Electronics pluggable products use the industry standard, series 166 connector format for maximum compatibility.





### **An-10 Wireless Lighting Control**

## An-10 wireless technology allows you to install a fully featured lighting control system easily and with minimal disruption.

An-10 has been specifically created to allow you to embrace the advantages of wireless technology, while at the same time offering all of the features and capability demanded by modern day lighting control systems.

The system is ideal for retrofit applications and historic buildings where disturbing the building fabric is undesirable or challenging.

#### Flexible

Every An-10 device within a system uses a number of different address codes that identify its place within that system and how it interacts with other devices. This allows the system to be highly flexible, configurable and reconfigurable should lighting layout changes occur.

#### Dependable

Wireless radio frequency (RF) devices are often perceived to be less reliable than their wired counterparts. Not so with An-10. It uses a unique 'hybrid mesh' network topology, together with a communication protocol, that has been specifically designed to meet the needs of lighting control.

#### Scene setting

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An-10 allows the creation and recall of preprogrammed lighting scenes to suit different uses within an environment. Scenes can be invoked by an An-10 dedicated scene control plate, a switch input unit (used with standard switch button plates) or an An-10 presence detector.



- Floor, multi-floor or building, lighting control system
- Presence or absence detection
- LUX level sensing
- Switching or dimming
- Step down illuminance
- Corridor hold
- Daylight linked switching
- Maintained illuminance
- Scene setting.



#### Wireless controllers

The range includes DIN rail controllers, wireless switch control interfaces, and driver/ballast controllers, which allow the control and switching of luminaires and devices wirelessly.

#### Wireless presence detectors

Adds presence detection functionality to an An-10 system when required. Flush mounted ceiling PIR and Microwave presence detectors – includes compact, miniature and adjustable head versions.



#### Scene control

An-10 offers a simple means of recalling pre-set lighting scenes. Both plates provide the ability to store and recall four scenes. The e-ink plate offers a visual display and can be removed from it's wall mount for added convenience.



#### Wireless interface modules

An-10 can be used as a bridge (where conventional wiring is difficult or impossible) between our lighting control systems. Interface modules are available for Vitesse Modular and our RAPID systems.





### **RAPID Lighting Control**

RAPID is fully addressable and networkable, combining state-of-the-art technology and modular mechanics, with an easy to use graphical interface.

#### Networking

RAPID can be configured to control rooms, floors or an entire multi-floor building. RAPID control modules are networked together on each floor, multiple floors are linked together using RAPID Area Controllers.

#### Remote monitoring and configuration

RAPID can be interfaced with a PC and propitiatory software, which allows you to monitor and reconfigure any part of the lighting system. An event calendar provides the ability to schedule lighting control for specific events, cleaning, re-lamping and emergency testing of lights.

#### **Notional corridors**

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RAPID enables the system administrator to create notional corridors of light, keeping working staff safe and secure whilst providing significant energy savings.

#### Scene setting and recall

RAPID allows the user to create and recall desired room lighting levels. Switching between scenes is easy and convenient with the stylish scene control panel.



- Networkable, floor, multi-floor or building-wide, lighting control system
- Presence or absence detection
- LUX level sensing
- Switching or dimming
- Graduated dimming
- Step down illuminance
- Corridor hold
- Remote monitoring
- Emergency monitoring
- Multi-room scene control
- BMS system gateway.



#### Hardwired lighting control modules

RAPID offers a wide range of DALI/DSI broadcast or analogue hardwired DIN rail options. They are suitable for where cabling is restricted to conduit, is concealed or inaccessible due to lack of false ceiling space.

#### Pluggable lighting control modules

RAPID also offers a wide range of pluggable LCMs. RAPID's modular design allows you to specify for CatA and is expandable for CatB helping to reduce costs at the fit-out stage.



#### Area controllers

A comprehensive range of network area controllers and modules that enable RAPID LCMs on a floor to communicate with one another, as well as allowing communication between floors and/or a front end PC package.



#### **Presence detectors**

Adds presence detection functionality to the RAPID system. This comprehensive range includes miniature, long range and adjustable head versions to provide complete building-wide coverage.



#### Controllers

RAPID scene setting controllers allow the recall of preprogrammed lighting levels to create different moods or configurations within a space.

The DALI control input unit provides an interface between the RAPID system and external devices such as switches, security systems and AV equipment.





#### Interface modules

Interface Modules for the RAPID lighting control system. Including:

- RAPID to An-10, DIN rail, interface module
- RAPID Open Systems Gateway
- RAPID to RS232, DIN rail, interface module.



#### Front end software

Microsoft Windows software that provides a RAPID graphical interface for the control and monitoring of a RAPID lighting control system from a PC. Includes an optional emergency lighting monitoring upgrade.



#### Scene control and user interfaces

Our RAPID cloud-based scene control interface with voice recognition, works in conjunction with LCMs and dimming luminaires to achieve advanced scene-setting lighting control from single rooms to multiple floors.

Scene control can be operated using touch screen technology via a tablet or smartphone, and through a range of stylish scene-select plates.



#### Leads and connectors

Pre-wired detector and luminaire leads for pluggable LCMs reduce installation times and ensure reliability. Individual connectors, extender leads, tee modules and a ceiling rose kit provide additional flexibility.

#### Infrared Handsets

### **Infrared Handsets**

Our range of infrared (IR) handsets have been designed to allow the simple configuration, programming and commissioning of our products. There's a handset to suit every user, whether it's the commissioning engineer configuring hundreds of detectors, a contractor setting up two or three, or a user who simply wishes to override a setting or switch between pre-programmed scenes.







#### UNLCDHS – Professional commissioning LCD programming handset

- IR range up to 20m
- USB connection: saves device settings and updates the handset's software
- Macros: create and save settings to recall device programing
- Read back: read settings from a device.

#### UHS5 – Commissioning handset

- Compact IR handset
- Basic programing of IR enabled CP devices
- IR range up to 7m max.

#### UHS7 – User handset

- Compact IR handset
- Simple scene setting, on-off, raise and lower
- IR range up to 7m.

### Available on our website - www.cpelectronics.co.uk



#### **Energy Efficiency in Buildings**

These products form a wide range of devices to enable Energy Efficiency in Buildings - A structured and holistic approach to reducing the carbon footprint and increasing sustainability of businesses.



100%

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