CP electronics
ENERGY CONTROLS

OEM Lighting Controls

Products & Solutions

Brochure
Issue 5

Maintaining your brand's bright reputation

As a leaders in energy-saving lighting controls since 1970, CP Electronics has many long-established partnerships with lighting manufacturers around the world. And to maintain the highest standards of service and client liaison, we created CP OEM – a specialist business unit. You can rely on CP OEM to live up to the promise of your brand.

Collaborative relationships

We work closely with lighting manufacturers, meeting their needs for design, technical collaboration and production standards. CP OEM takes your company's brand reputation as seriously as we do our own; our reputation for quality speaks for itself.

Design Innovation

CP Electronics invest heavily in the research and development (R&D) of new cutting-edge products and technologies. Our ethos has always been to innovate new ways for our customers to save money and minimise environmental impact without sacrificing functionality or aesthetic. These underpinning values are complemented by a constant drive towards simplicity. We create products with the user in mind.

Our R&D team include some of the brightest and most experienced R&D engineers in the industry. And our investment in R&D, is acknowledged as higher than the industry standard.

Our internal designers and technical services engineers work closely with you to ensure the product performs to your requirements. Our expertise extends from mechanical design of form factors, through to software for simple set-up and electronic design.

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Working methodology

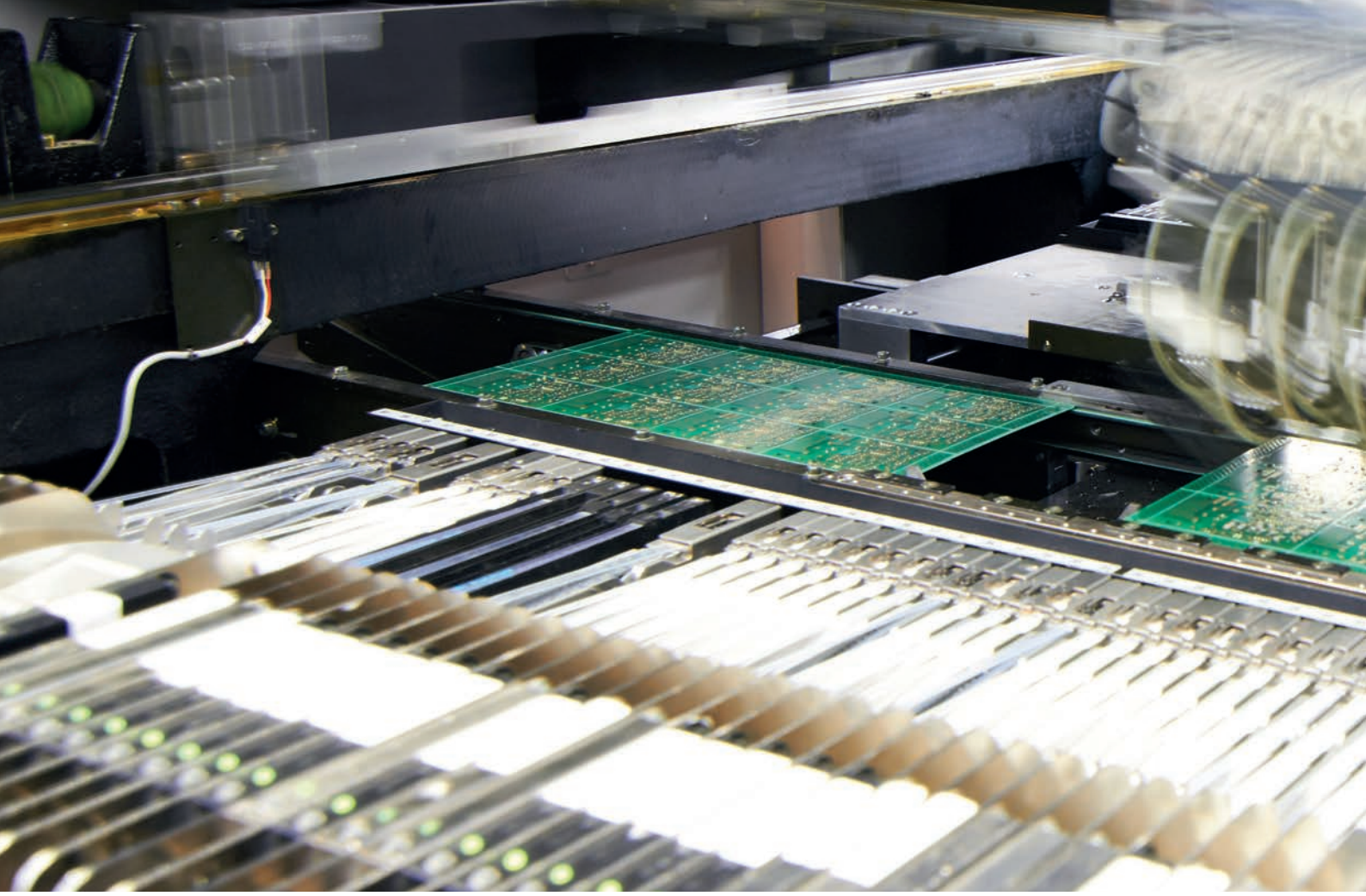
Each working partnership is unique – but here's a typical working process:

- Consultation: We begin the process by understanding your requirements. We'll appoint a dedicated CP OEM expert to give you a single point of contact.
- Scoping: We'll consider mounting heights, ambient temperatures, water ingress protection, timescales and budgets when scoping the project.
- Recommendation: After a thorough analysis of your requirements we'll make our recommendations, as well as providing lead times and projected costs.
- Testing: We test the solution to ensure it meets all your requirements and performs to CP Electronics performance standards.

BIM READY

5 YEAR WARRANTY

UK DESIGN



Manufacturing excellence

CP Electronics has grown to become the industry leading manufacturer of lighting controls for the UK. At the heart of the CP Electronics success story is an adherence to a specific set of values, one of which is quality.

Production facility

The majority of our products are manufactured here in Wembley, close to the heart of London in the UK, using high quality materials, cutting edge production techniques and a highly skilled workforce. This operational strength ensures that we have total control of quality standards all the way from product development and testing to assembly, packaging and distribution.

Quality assured

We work to high quality standards, using advanced production techniques. All our components are thoroughly tested in-house to deliver consistent performance and endurance in their intended application.

We're so confident of our quality and testing regime that we offer a 5-year warranty on all our products.

Accreditations

CP Electronics works to the highest standards of health & safety, with a safe, well-trained and competent workforce and the lowest possible risk of production delays, something which was independently verified in 2016 when it was awarded the prestigious BS OHSAS 18001-2007 international safety standard.

We believe CP Electronics is the first lighting controls supplier to have also received this award in conjunction with the ISO 9001-2008 for compliance to strict assembly and test procedures, and ISO 14001-2004 environmental standards.

Our products carry the CE mark. We are also active members of the Energy Systems Trade Association (ESTA).

We are also UL compliant on key products.

Technical support

All CP Electronics products are backed by dedicated sales, after-sales and technical support teams. We work with OEM manufacturing partners around the world, whether on site, by telephone or online.

bsi. ISO 9001 Quality Management FM 45789 · ISO 14001 Environmental Management EMS 534520 · OHSAS 18001 Occupational Health and Safety Management OHS 642036

ESTA energy services and technology association

CE

MEMBER KNX

Member of the LIA

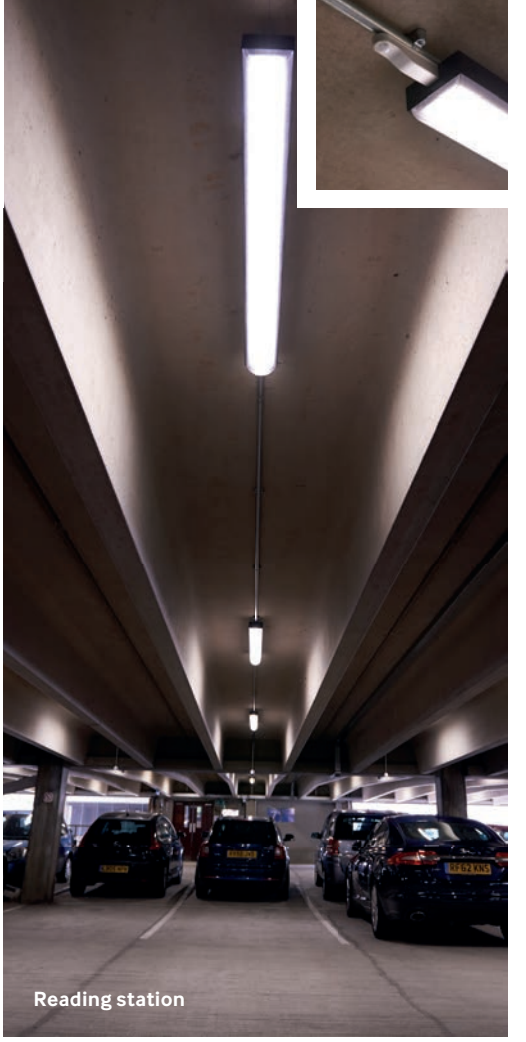
Digital Illumination Interface Alliance

CPD MEMBER Construction CPD Certification Service

UL CERTIFIED SAFETY US·CA E363204

Blakemore foods

Winyu House



Reading station

Global Projects & Sector Coverage

Blakemore Foods, UK

Blakemore foods, an established multi-temperature food distribution company, required an energy efficient scheme for illumination of their warehouses. Various mock ups were carried out to find the best design approach.

Solution:

Integration of the **EBDHS-LT30** batten mount, low temperature high bay PIR detector. These are programmed to harvest daylight, and interact with the different levels of operation occurring in warehouses with low ambient temperatures. This is predicted to contribute to the overall target ROI of 1.3 years within the complete lighting design.

Winyu House, Australia

A new, four-storey ACT Government office block in Canberra, designed with a large public accessible ground floor and three levels of office space connected by a central atrium.

With a minimum 4.5 star NABERS rating specified, the energy efficient lighting needed to incorporate zone controls, using natural light where possible from the central atrium.

Solution:

400 **KNX-compatible** compact ceiling mounted PIR presence detectors - with two switch inputs, programmable logic block and full scene selection. Also includes absence detection, and user-configurable logic functions and timers.

Reading Station Car Park, UK

To improve the existing lighting scheme and provide effective control for 10 levels and 1600 car parking spaces, in use 24 hours a day. This required combining energy control products with new installation of LED luminaires to maximise cost savings and ROI.

Importantly, the scheme had to provide security, safety and overall comfort on entry/exit of the car park.

Solution:

One **EBMPIR-MB** batten mount PIR detector- controlling every third LED luminaire

Luminaires dimmed to 10% when not in use, to fulfil safety requirements, brightening when sensing vehicle or user movement.

Cheesegrater, UK

122 Leadenhall Street, London, the iconic "Cheesegrater" awarded BREEAM rating "excellent" required flexible lighting control for the building owners and the occupants of multiple spaces.

Solution:

An-10 wireless lighting control systems for individual rooms while reducing physical communications cable.

Occupancy control with absence detection provides increased flexibility with users, while **DALI** dimming is a robust platform for control and addressability within the building's spaces. Daylight linking balances with available natural light to increase overall building efficiency.

Bluebell Park, UK

Bluebell Park Apartments, built in Huyton, offers apartments specially designed to cater for the health and care needs for those over the age of 50.

50% of lights needed to be controlled by presence detectors to help to minimise any unnecessary energy consumption and cost incurred. The lighting control system also needed to link with the building's fire alarm system.

Solution:

CP's patented **An-10** wireless lighting control system integrated conveniently with the complex's internal clock and fire systems.

Farmers Distribution Centre, New Zealand

A new 4-level distribution centre and warehousing facility for the iconic brand. Field trials were carried out to prove the unparalleled range of the **EBDHS-DD** detectors, and their ability to meet the required detection criteria even when mounted at heights of 20 metres.

Solution:

Application of 80 High Bay EBDHS dimming detectors, providing presence detection and daylight harvesting, integrated with a comprehensive lighting control system which links the old and new distribution centres.

Standalone Integral Detectors

Our presence detectors are available in various versions to control many types of drivers/ballasts or connect with various control systems. The available options are signposted on each product page.

Glossary of available options:

- PRM – Switching via relay output
- DD – DALI/DSI digital dimming and optional relay
- AD – Analogue dimming (110V AC) and relay
- LV – Low voltage operation (generally 12–24V AC or DC)
- An10 wireless – CP Electronics' proprietary RF lighting control system
- LT30 – Low temperature range – operational at -30°C
- OC – Switching via open collector output
- DNET1 – DALI network (polled via system integrator's solution)
- SR – Sensor Ready compatible
- KNX – Designed for use with KNX applications

All products shown in this brochure, excluding the DNET1 versions, can be programmed via our infrared handsets (see opposite).

The dimming products, which include DD, AD or SR in the part codes, offer maintained luminance, a fully configurable step level before switch off and corridor hold with lux switching.

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Infrared Handsets

Our range of infrared (IR) handsets have been designed to allow simple configuration, programming and maximum user convenience.

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.

UHS5

UHS7

UNLCDHS – Professional commissioning LCD programming handset

- The UNLCDHS is a compact infrared handset used for the operation, configuration and programming of CP products that have the ability to be programmed via IR. These include the PRM, DD, AD, SR, D-Mate and An-10 ranges.
- IR range up to 20m

UHS5 – Commissioning handset

- The UHS5 is a compact infrared handset used for the basic programming of IR enabled CP products
- IR range up to 7m

UHS7 – User handset

- User handset for simple scene setting, on off, raise + lower
- IR range up to 7m

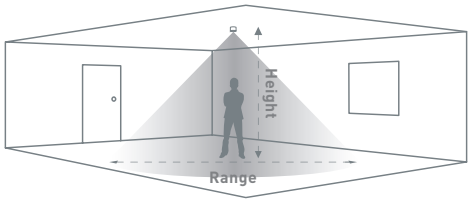
EBDHS | High Level Detectors

The EBDHS PIR presence detector is developed for lighting control in areas with demanding spaces and increased mounting heights.

- Ground breaking detection range
- For mounting at heights up to 20m depending on operating parameters.
- Unique lens technology – high sensitivity
- Infrared programmable
- Ideal for high level/high bay applications
- Supplied with adjustable masking shields to tailor detection zones

Detection pattern

high < sensitivity > low

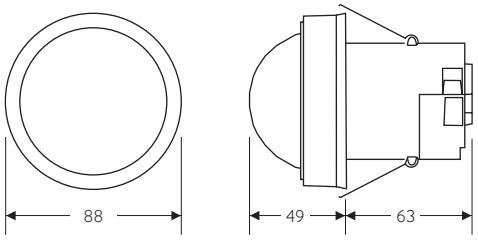


Height	Range
15m	40m

Available versions

- PRM – Switching
- DD – DALI/DSI digital dimming
- AD – Analogue dimming
- LV – Low voltage
- OC – Open collector
- An10 – Wireless (see page 24)
- LT30 – Low temperature (see page 17)
- DNET1 – DALI network (see page 21)
- SR – Sensor Ready (see page 22)

Dimensions (mm)



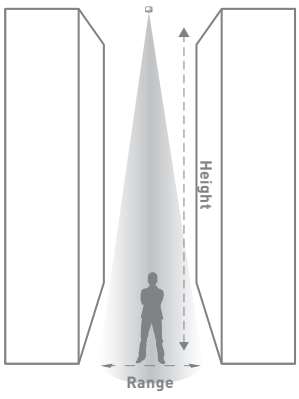
EBDSPIR-HB | High Level Detectors

The EBDSPIR-HB series of PIR detectors are designed for high bay applications where narrow beam detection is required, such as warehouses and factories.

- Ideal for high level/high bay applications
- Infrared programmable
- For mounting at heights up to 15m
- Surface mounting back boxes available

Detection pattern

high < sensitivity > low

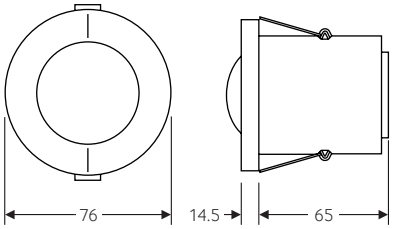


Height	Range
6m	2m
8m	2.7m
10m	3.4m
12m	4.0m
15m	5.1m

Available versions

- PRM – Switching
- DD – DALI/DSI digital dimming
- AD – Analogue dimming

Dimensions (mm)



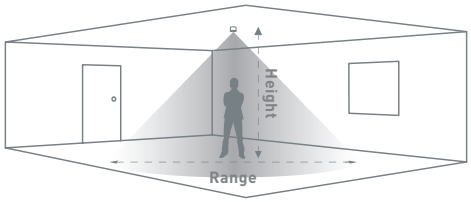
EBDHS-MB | High Level Detectors

The EBDHS-MB luminaire mount PIR presence detector provides exceptionally sensitive and long range detection. Ideal for high bay lighting control in areas with demanding spaces and increased mounting heights.

- Ground breaking detection range
- For mounting at heights up to 20m depending on operating parameters
- Infrared programmable
- Ideal for high level/high bay applications
- Easy to retrofit to commercial luminaires and basic battens

Detection pattern

high < sensitivity > low

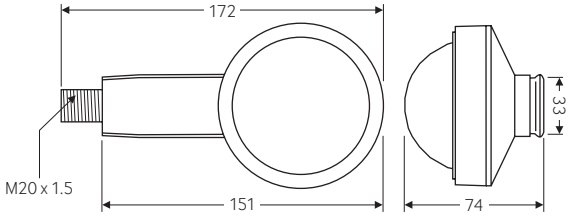


Height	Range
15m	40m

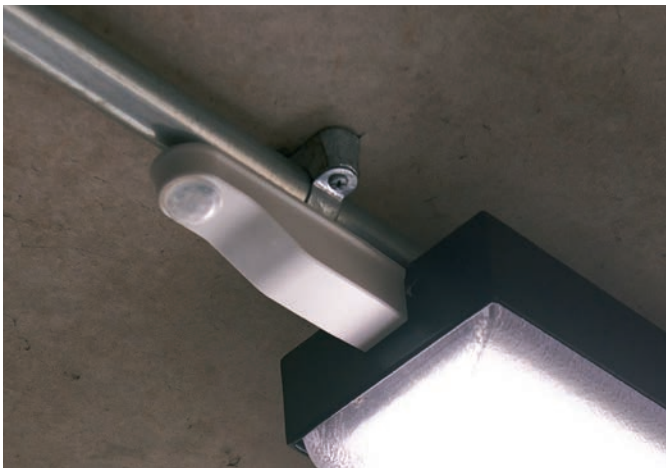
Available versions

- PRM – Switching
- DD – DALI/DSI digital dimming
- AD – Analogue dimming
- LT30 – Low temperature (see page 17)
- DNET1 – DALI network (see page 21)
- SR – Sensor Ready (see page 22)
- An10 – Wireless (see page 24)

Dimensions (mm)



EBMPIR-MB | Batten Mounted Detectors

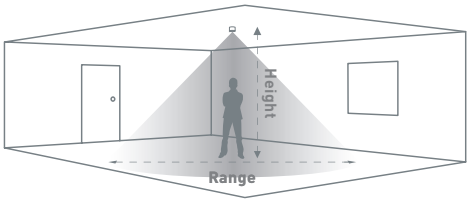


The EBMPIR-MB series of batten mount PIR presence detectors have been designed specifically for mounting on to a batten style luminaire.

- Batten mount retrofit solution
- Integrated power supply
- Infrared programmable
- Suitable for a wide range of luminaires
- Supplied with comprehensive fitting kit
- Supplied with 1m lead
- For mounting at heights up to 7m

Detection pattern

high < sensitivity > low

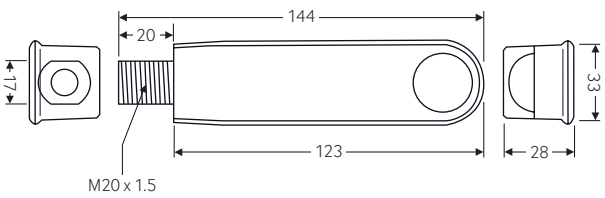


Height	Range
2.8m	7m
7m	16m

Available versions

- PRM – Switching
- DD – DALI/DSI digital dimming
- AD – Analogue dimming
- 110V – 110V AC operation
- LT30 – Low temperature (see page 17)
- DNET1 – DALI network (see page 21)
- SR – Sensor Ready (see page 22)

Dimensions (mm)



EBMHS-IP | IP65 Miniature Detectors

The EBMHS-IP range of miniature high sensitivity PIR presence detectors are ideal for integration into equivalent IP rated luminaires, and external lighting applications such as car parks and integration into street lights.

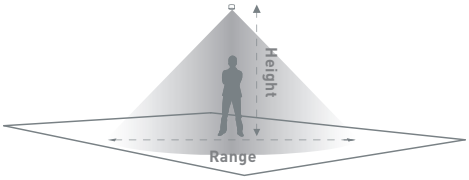
- IP65 in accordance to BS60598-1 2015 to 15 minutes
- Unobtrusive design
- Supplied pre-wired with an RJ11 plug for connection to the relevant power supply (see page 20)
- Infrared programmable
- Mounting at heights up to 7m

Available versions

- PRM – Switching
- DD – DALI/DSI digital dimming
- AD – Analogue dimming
- LV – Low voltage
- DNET1 – DALI network (see page 21)
- SR – Sensor Ready (see page 22)

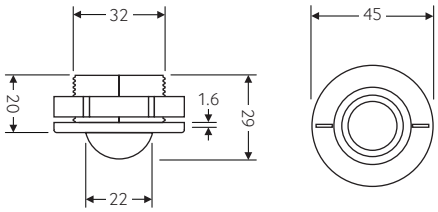
Detection pattern

high < sensitivity > low



Height	Range
2.8m	9m
7m	16m

Dimensions (mm)



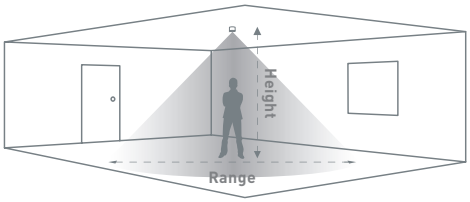
EBMHS | Miniature Detectors

The EBMHS series of miniature PIR presence detectors provide automatic control of lighting loads with optional manual control.

- Small and unobtrusive design
- Supplied pre-wired with an RJ11 plug for connection to the relevant power supply (see page 20)
- Infrared programmable
- For mounting at heights up to 7m
- A selection of fixing clips to allow the unit to be mounted in or to the side of a luminaire are available

Detection pattern

high < sensitivity > low

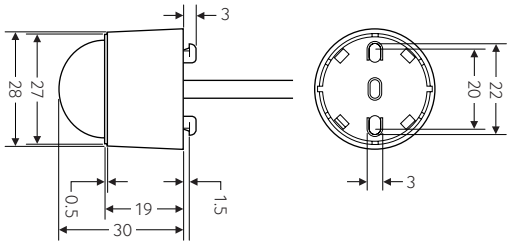


Height	Range
2.8m	9m
7m	16m

Available versions

- PRM – Switching
- DD – DALI/DSI digital dimming
- AD – Analogue dimming
- LV – Low voltage
- OC – Open collector
- DNET1 – DALI network (see page 21)
- SR – Sensor Ready (see page 22)

Dimensions (mm)



EBMPIR | Miniature Detectors

The EBMPIR series of miniature passive infared (PIR) presence detectors are ideally suited for applications that require an unobtrusive solution or where space is at a premium.

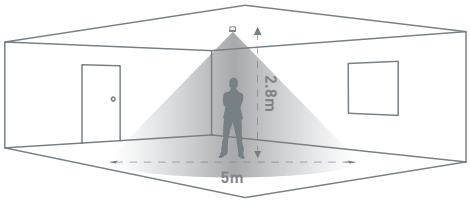
- Small and unobtrusive design
- Supplied pre-wired with an RJ11 plug for connection to the relevant power supply
- Infrared programmable
- For mounting at heights up to 2.8m
- A selection of fixing clips to allow the unit to be mounted in or to the side of a luminaire are available
- Please see page 20 for power supply options and information

Available versions

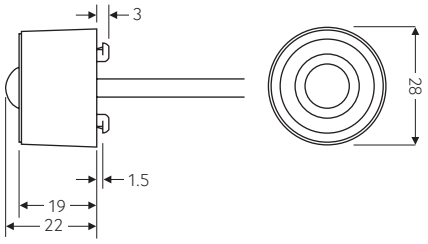
- PRM – Switching
- DD – DALI/DSI digital dimming
- AD – Analogue dimming
- LV – Low voltage

Detection pattern

high < sensitivity > low



Dimensions (mm)



Low Temp Detectors

Cold storage environments such as warehousing, docking bays and car parks can reach ambient temperatures from -10°C to -30°C. These areas normally have uncontrolled lighting resulting in expensive use of energy.

Following rigorous testing in climatic chambers and on-site, our Minus30 range of lighting controls is specifically designed for the cold storage and refrigeration sector, performing at aggressive -30° temperatures.

Available versions

- PRM – Switching
- DD – DALI/DSI digital dimming
- AD – Analogue dimming

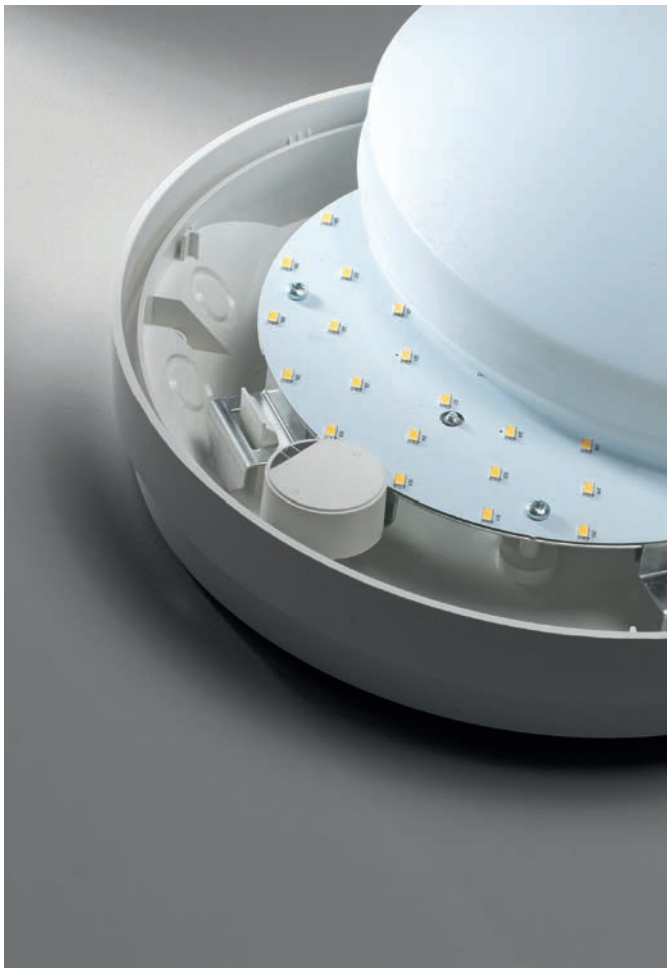
EBMPIR-MB-LT30

EBDHS-MB-LT30

EBDSPIR-LT30

EBDHS-LT30

MWS5 | Microwave Detectors



The MWS5 range of compact microwave detectors has been specifically designed to be mounted within a luminaire. They are sensitive to movement and are ideal for large spaces that have an awkward shape.

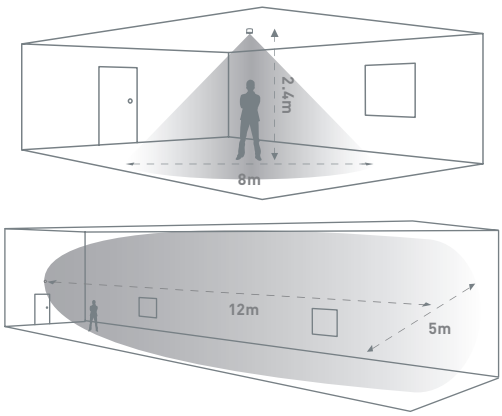
- Can be mounted on the gear tray, surface mounted behind the diffuser, flush mounted or mounted in or to the side of a luminaire using a selection of fixing clips
- Remote power supply allows head to be fitted in confined spaces
- Infrared programmable
- Suitable for wall or ceiling mounted luminaires
- Please see page 20 for power supply options and information

Available versions

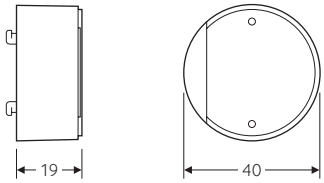
- PRM – Switching
- DD – DALI/DSI digital dimming
- AD – Analogue dimming
- LV – Low voltage

Detection pattern

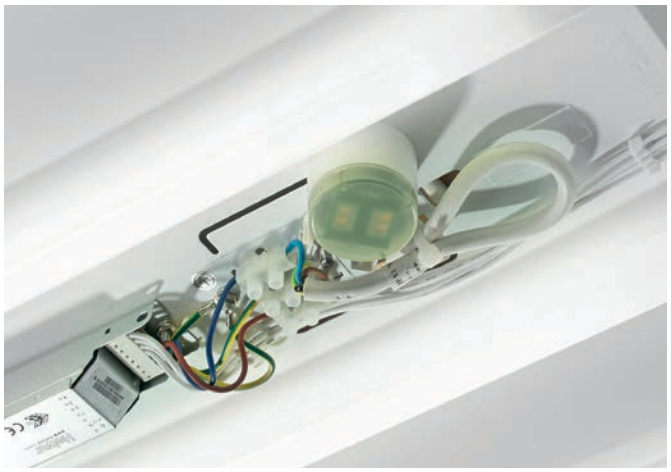
high < sensitivity > low



Dimensions (mm)



MWSINT | Microwave Detectors

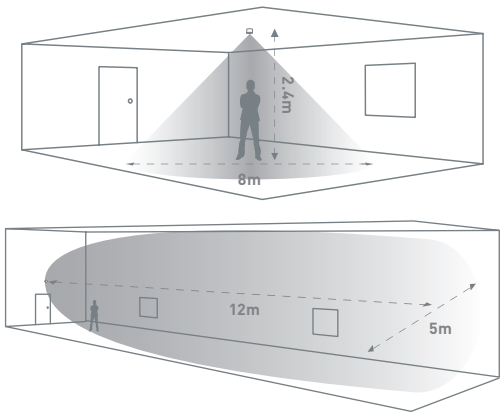


The MWSINT series of self-contained microwave presence detectors has been specifically designed to be mounted within a luminaire.

- Self-contained unit with integrated power supply
- Infrared programmable
- Can be clipped onto the gear tray or a bracket inside a luminaire
- Suitable for wall or ceiling mounted luminaires

Detection pattern

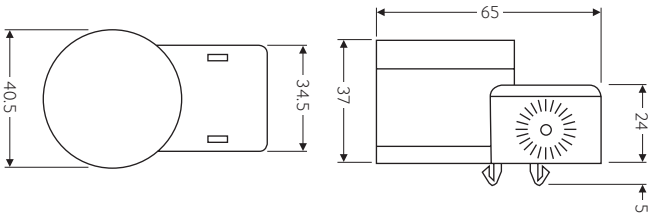
high < sensitivity > low



Available versions

- PRM – Switching
- DD – DALI/DSI digital dimming
- AD – Analogue dimming

Dimensions (mm)

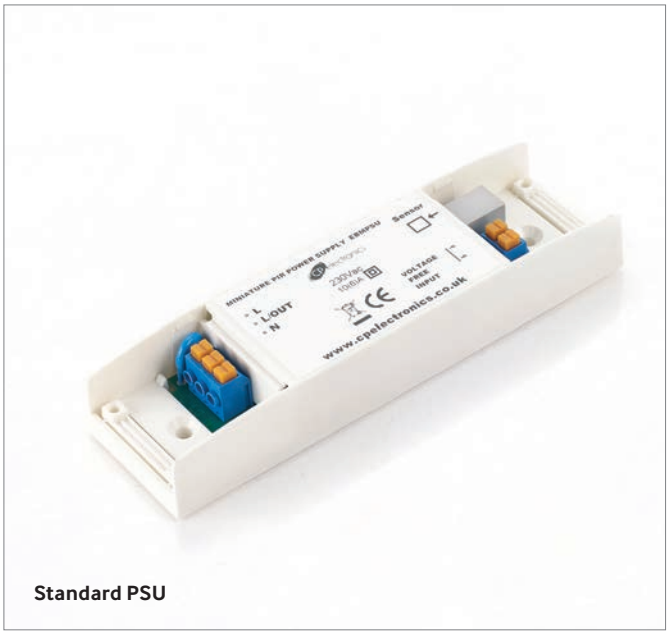


Power Supply Units

The majority of our detectors are self-contained. For our compact and miniature detectors we have a choice of Power Supply Units (PSUs).

The slimline PSU is ultra-compact, perfectly suited to be installed into slimline luminaires.

Slimline PSU



Standard PSU

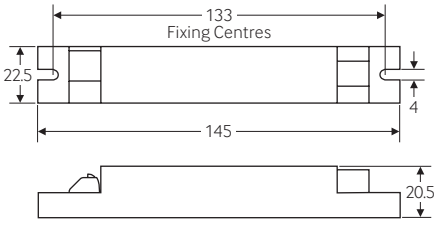
Slimline PSU

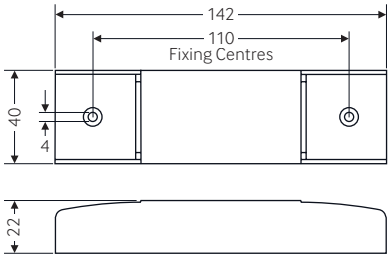
- Suitable for presence detection only
- Uses a spring connection system for the terminals making it easy and quick to install
- 2 amp relay switching
- Up to 10 x (DSI/DALI) drivers/ballasts
- Up to 4 x (DSI/DALI) drivers/ballasts with relay version
- Up to 4 x (1–10V) drivers/ballasts

Standard PSU

- Suitable for presence and absence detection
- Uses a spring connection system for the terminals making it easy and quick to install
- 6 amp relay switching
- Up to 20 x (DSI/DALI) drivers/ballasts
- Up to 10 x (DSI/DALI) drivers/ballasts with relay version
- Up to 10 x (1–10V) drivers/ballasts

Dimensions (mm)





DALI Network Detectors & Accessories

The DNET1 product family allows a systems integrator to add PIR detectors to their proprietary, addressable two-wire DALI network.

The products are powered, commissioned and polled over the two-wire bus and can be queried for presence and lux level.

EBDHS-DNET1

EBMHS-DNET1

EBMHS-MB-DNET1

EBMHS-IP-DNET1

EBMPIR-MB-DNET1

EBDSPIR-DNET1

The DALI Accessories range consists of two DALI power supplies, together with a single channel broadcast scene plate offering four lighting level pre-sets/scenes.

DALI/DSI Broadcast Dimmer Switch

DIN Rail PSU

Slimline PSU

Sensor Ready Detectors

As one of the earliest members of the Philips Sensor Ready (SR) Certified Partner Program, CP Electronics are able to offer a suite of SR compatible detectors. By connecting to an SR certified driver the SR detector does not need its own power supply which can save an OEM cost and with the miniature PIR detectors, space too.

The SR detectors are programmed in the same way as the standalone detectors with the UHS5 or the UNLCDHS handsets, which then allows the following extra features to be controlled: lux learn, auto brightness switching, gradual fade control and absence recovery.

This Sensor Ready range includes products for all applications from miniature integrated to high bay warehouses, providing easy communication compatibility between the sensor and the luminaire driver.

EBMHS-SR

EBDHS-SR

EBDHS-IP-SR

EBDHS-MB-SR

EBMPIR-MB-SR

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.

- PIR or microwave detectors available
- Absence detection
- Walk test LED
- Light level sensor
- Two ELV switch inputs
- Infrared programmable
- User-configurable logic functions and timers

Configuration of devices on the KNX bus takes place via the standard ETS software application, allowing all aspects of the presence detector's behavior to be configured and controlled.

EBDSPIR-KNX

EBDHS-KNX

MWS3A-KNX

MWS6-KNX

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 functionality demanded by modern day lighting control systems.

Selected An-10 wireless components

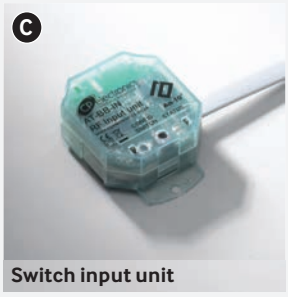
Please request a brochure or see our website for the complete An-10 range.

High level detector


Compact PIR detector

Driver/ballast controllers


Adjustable microwave presence detector

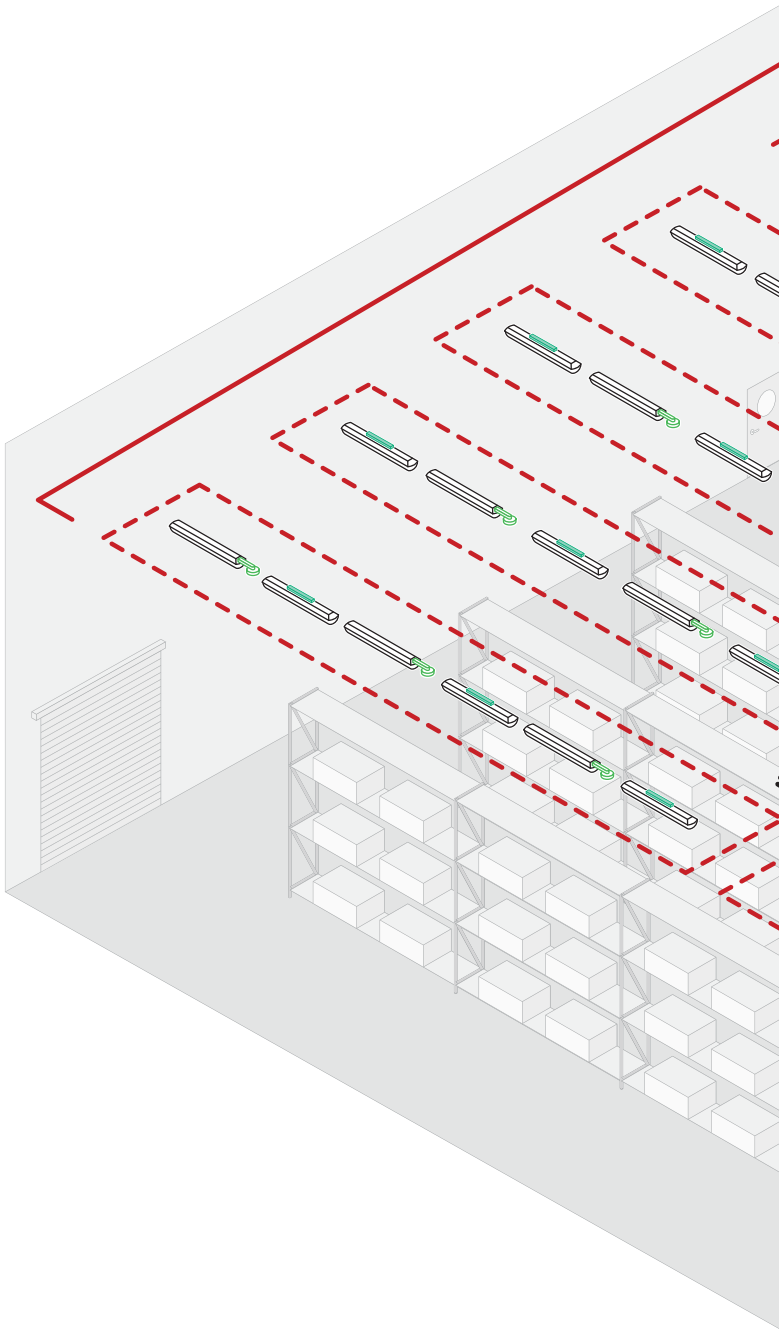


Switch input unit


Scene plate


High level detector

Wireless adapter



An-10 warehouse application

In this warehouse layout, triggering a detector in any aisle, shown by the red dotted lines, sends an RF signal to all associated devices, both presence detectors and luminaire driver/ballast controllers, within the aisle illuminating the work area.

Movement in any of these racking aisles is used to keep the main central aisle illuminated allowing passage of people and vehicles into adjacent areas.

The wireless switch inputs are utilised to manually turn on the S1 & S2 areas to a pre-determined light level for maintenance and stock taking purposes.

Daylight linking within each aisle is available.

Key

- Groups
- Group held on by aisles
- S1 - Switch RH aisles
- S2 - Switch LH aisles

Room Control System

Economical scene setting and energy control

D-Mate® provides a cost effective scene setting system with all the benefits of energy saving control. It is fully modular and integrates perfectly with CP Electronics presence detectors and other switching devices such as scene plates – all designed by CP.

Users also benefit from intuitive infrared control handsets which strengthens the overall value offering of D-Mate.

D-Mate system components

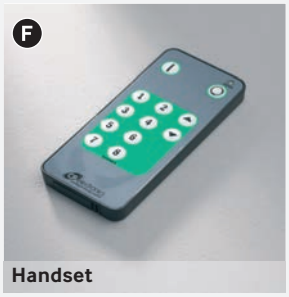
Switch input unit

Slimline PSU

Scene plate

Compact PIR detector

Addressers

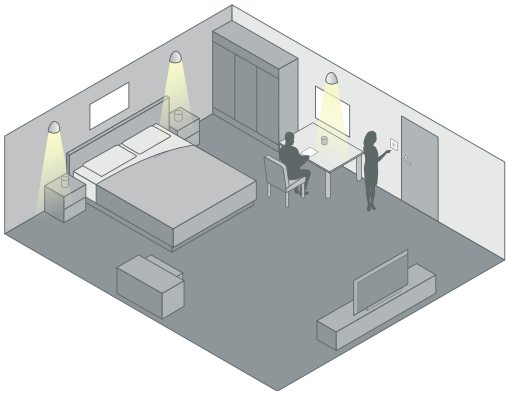


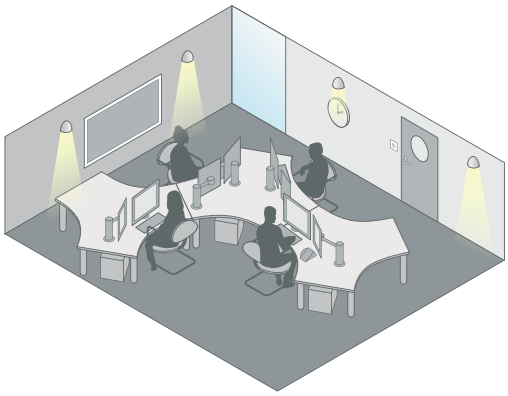
Handset

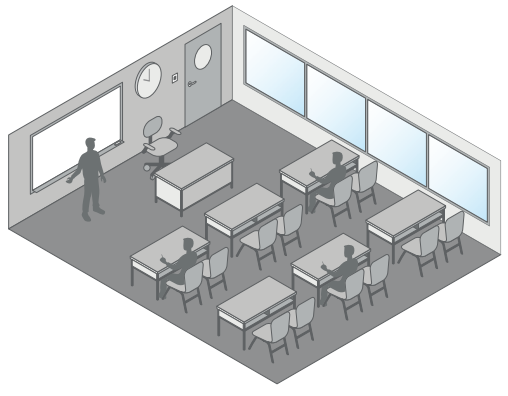
Ideal for a wide variety of applications

D-Mate® is suitable for a wide range of application including office meeting rooms, hotel rooms and control rooms.

Ideal for retrofit solutions where lighting control and scene setting needs to be introduced.


Hotel Rooms

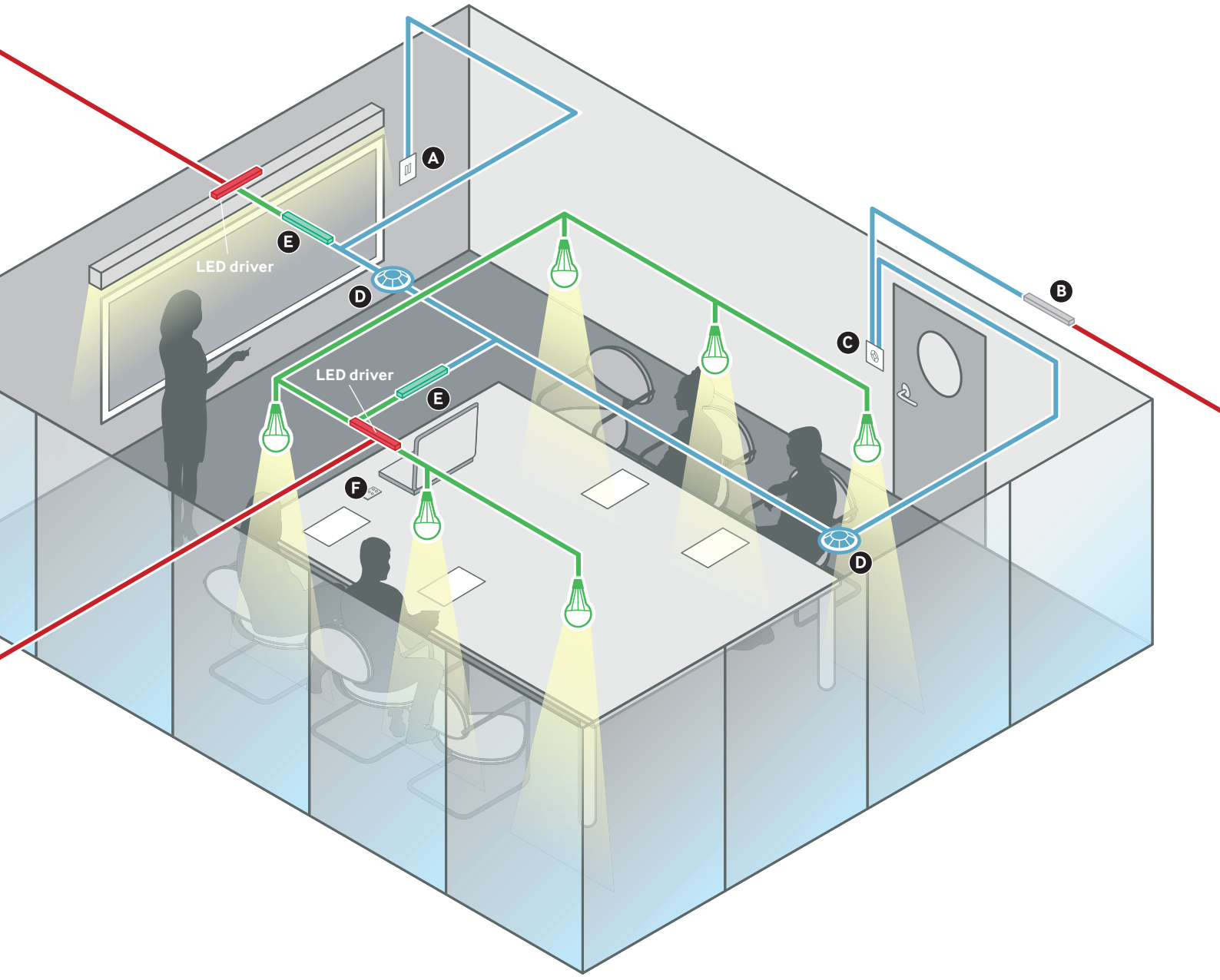

Control Rooms


Classrooms

D-Mate meeting room application

When entering the meeting room, the lighting switches on automatically. The background light level required can be selected by recalling one of the fully programmable scenes via the scene plate located at the entrance door.

Additional control can be achieved by utilising addressers and switch inputs. Addressers allow the lighting to be further broken down into a greater number of control groups, switches used in conjunction with addressers, that can provide manual control over these groups such as that shown for override of the presentation screen.



Key

- 240v
- D-Mate Bus
- DALI Control

CP Electronics
A business unit of Legrand Electric Limited,
Brent Crescent,
London NW10 7XR, UK
+44 (0)333 900 0671
info@cpelectronics.co.uk

www.cpelectronics.co.uk

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