Vitesse Plus

Stand-alone lighting control system

Brochure

Issue 3.4

Flexibility, Reliability and Simplicity at Your Fingertips

CP Electronics has built a global reputation for innovative, reliable, energy-saving lighting control systems. Now new Vitesse Plus heralds the next step in lighting control, with simple commissioning and total flexibility. It's a full 7-channel system that's ideal for education, commercial and retail spaces - anywhere that needs to control energy costs without affecting user convenience.

Time-saving pre-set menu

Some lighting control systems need time-consuming and costly expert programming. In contrast, the new Vitesse Plus system features a built-in pre-set configuration menu that allows the installer to configure the system quickly and intuitively for any location.

BIM ready

Its innovative design also helps the education sector meet emerging legislation and guidelines for classroom lighting control, including building information modelling (BIM) and Education Funding Agency (EFA) directives.

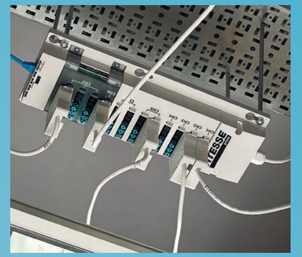
Controlling any light source, any building, any space.

5 YEAR WARRANTY · UK DESIGN · BIM READY

Simple to install

With plug-in modular components the new Vitesse Plus 7-channel system is easy to install and set up, saving time and money.

See pages 7



Feature-packed to suit your needs

- Graduated Dimming
- Corridor Hold
- SELV Switching
- Emergency Lighting Test
- Open Port Function
- Scene Setting

See page 6

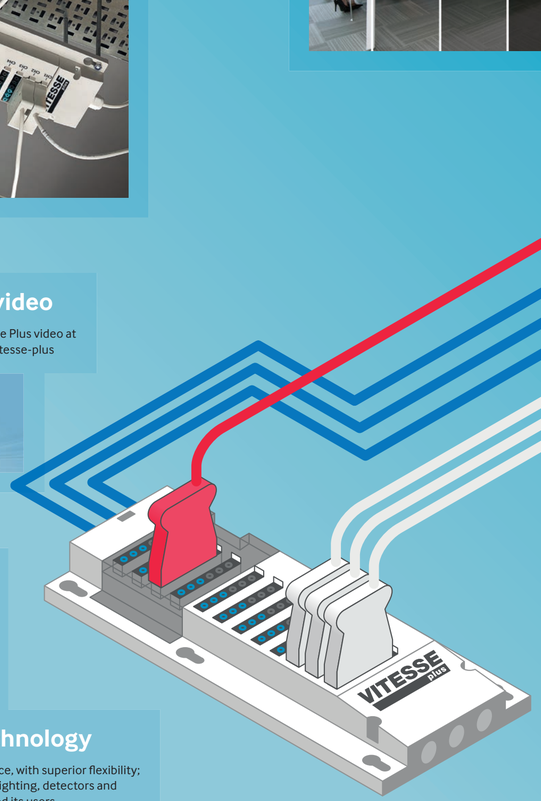
Innovative products

Choose the ideal combination of lighting, presence and absence detectors, switches and scene-setting plates to suit your environment; Vitesse Plus seamlessly controls them all.

See pages 13–16

Vitesse Plus video

View our introductory Vitesse Plus video at www.cpelectronics.co.uk/vitesse-plus



7-channel technology

Complete control of any space, with superior flexibility; choose any combination of lighting, detectors and switches to suit the space and its users.

See page 12

Control at your fingertips

The Vitesse Plus handset offers access to a menu of pre-set configurations to set up spaces quickly and intuitively. Features like corridor hold and graduated dimming are easy to set up and control.

See page 5

Introduction to Vitesse Plus

Discover the latest generation in lighting control, with intuitive control, pre-set configurations and the full capability of 7-channel technology.

Applications

The flexibility, sophistication and ease of control that Vitesse Plus offers make it ideal for a wide variety of applications, including the education sector, commercial properties and demanding retail environments.

System Products

Discover the full range of lighting control products that can be controlled via the Vitesse Plus system, including the latest presence and absence detectors, switching and scene-setting plates.

Technology Guide

Learn more about the innovative features of our product ranges.

Service Philosophy/Case Studies

Users in all sectors are discovering how Vitesse Plus can deliver a bespoke lighting environment with lower energy costs and reduced environmental impact. And the CP Electronics team is always ready to provide full technical support, whether on site, online or on the phone.

How Pre-set Configurations Work

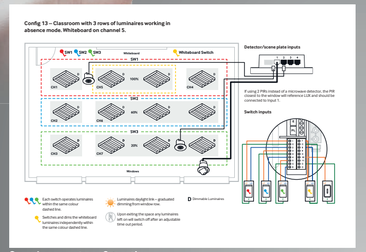
In the past, programming the right configuration for a specific application has required specialist skills. Not any more: the pre-set configurations within the latest Vitesse Plus system are easily accessed by the installer and end user.

Match pre-sets to your application

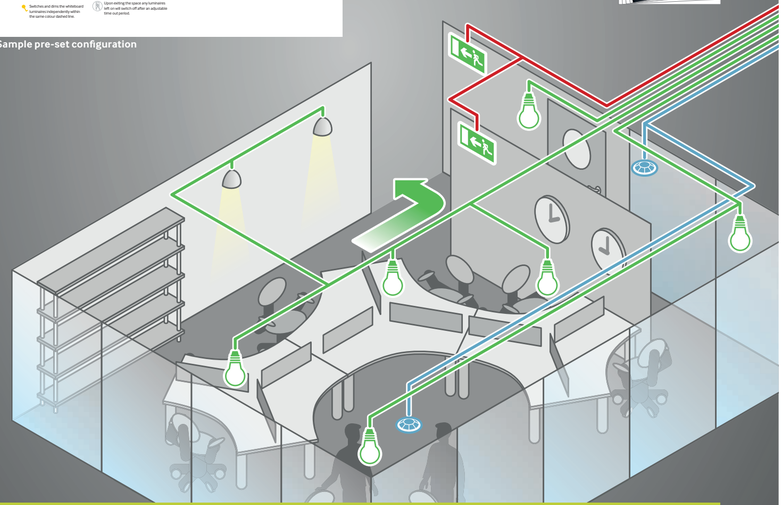
We have developed a collection of pre-set configuration schematics that can be matched to your requirements. Simply find your application within our online library or our handy booklet, and programme using our handset's intuitive, user-friendly menu. With just a few simple button pushes, your system is set up. Alternatively, you can customise elements individually to achieve your own bespoke configuration.

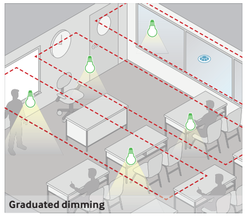
A sophisticated, 7-channel lighting control system like Vitesse Plus offers a near-infinite choice of configurations, making it fully adaptable to the building space.

For more information and to view the complete collection of configs, please refer to our Pre-set Configurations Booklet or visit: www.cpelectronics.co.uk/vitesse-plus.



Sample pre-set configuration




Graduated dimming


Corridor hold

SELV

SELV switching


Emergency lighting test


Open port function


Scene setting

Feature Packed

Graduated dimming

The lighting within a space dims progressively from the source of natural illuminance in response to changes in natural light levels. This maximises the use of daylight within a space and minimises energy consumption and over-lighting of the space.

Corridor hold

To allow safe local egress lighting a simple corridor hold output is provided via a pluggable connector on the lighting control module. If any of the control outputs are 'on' any other lighting control module connected via the corridor hold output will also be 'on'. By connecting the corridor hold between Vitesse Plus lighting control modules, simple notional corridor routes can be created.

SELV switching

The new Vitesse Plus lighting control module has 18 SELV inputs. Up to 5 centre biased retractive switches can be connected as well as an ELT keyswitch.

This allows cabling for manual switches to be non-mains rated and without the need for mechanical protection, saving you time and money.

Emergency lighting test

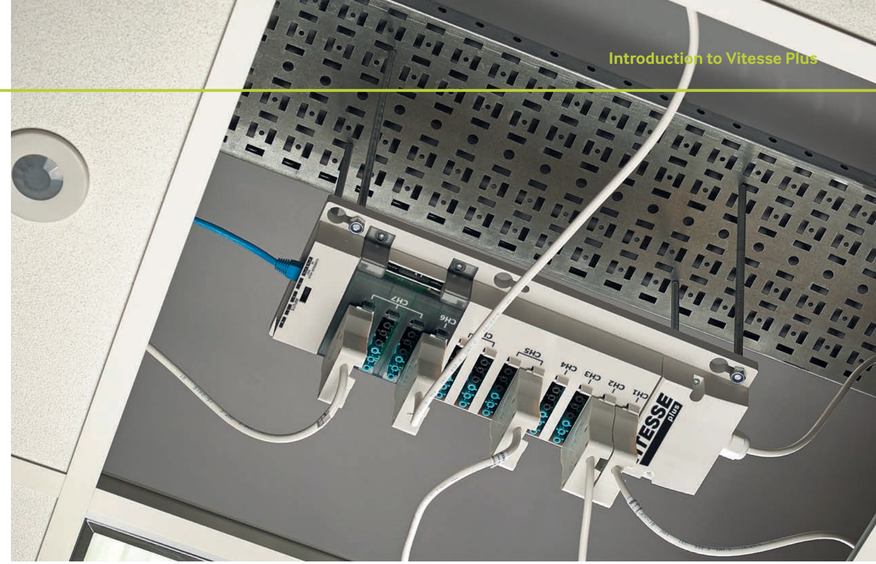
Dedicated SELV input allows for a local emergency test on the LCM. This can be linked across a number of LCMs to allow emergency test of a large open plan office for example.

Open port function

The LCM can be programmed via a connected presence detector using our professional commissioning LCD programming handset, UNLCDHS. This is ideal for when access to an LCM is limited.

Scene setting

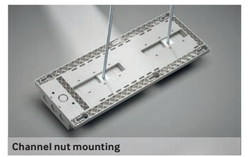
Scene selection allows the recall of pre-programmed lighting levels to create different moods or to suit different uses within an environment.



Simple Installation and Connectivity

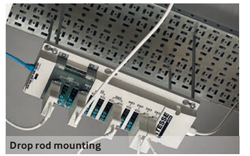
Vitesse Plus has been designed with the installer in mind and provides easy installation options for all mounting locations.

The mains input is connected using the spacious wiring compartment; and control inputs and outputs are pluggable using industry standard connectors as shown in the typical layout above.


Channel nut mounting

Marco clip mounting


Slab mounting


Drop rod mounting

Versatile wiring connections

Vitesse Plus has been designed for hassle-free wiring on-site.


Spacious wiring compartment


Pluggable SELV connections

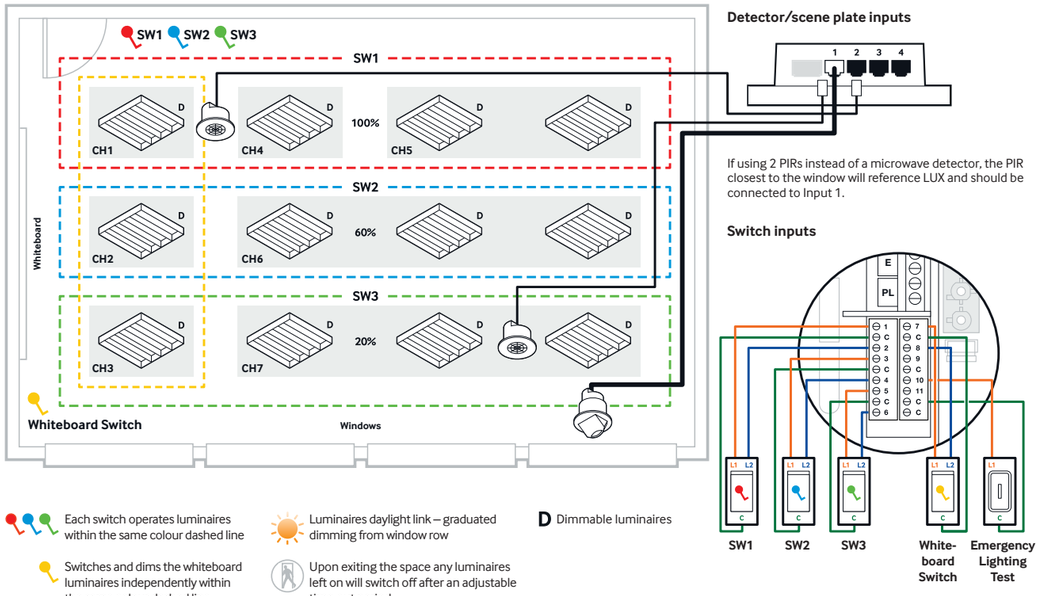
Applications

Education

Designed to help the education sector meet emerging legislative requirements for classroom lighting control.

- **Graduated dimming** – The lighting within a space dims progressively from the source of natural illuminance in response to changes in natural light levels. This maximises the use of daylight within a space and minimises energy consumption and over lighting of the space. (Please see page 19).
- **Scene setting** – Scene selection allows the recall of pre-programmed lighting levels to create different moods or to suit different uses within an environment.
- **Absence recovery** – This initiates presence mode in absence applications after a detector timeout period has elapsed. The default for this is 10 seconds. There is also a fade time with a pre-set default of 5 minutes, this means that any dimmable luminaires will dim down to 20% to give a visual indication that the fade time period has started. (Please see page 17).
- **Switch detection time** – This ensures that if a switch is activated to turn the lighting on and no occupancy is detected within 10 seconds of the switch being pressed, the lighting will turn off. (Please see page 17).
- **Default pre-set configurations for all education applications** – A series of inbuilt pre-set configurations designed specifically for the education sector ensure that the lighting control is flexible and intuitive and does not impinge on the teaching environment. It also allows for education spaces to be easily reconfigured with minimal disruption.

Config 10 – Classroom with 3 rows of luminaires working in absence mode. Whiteboard on channels 1, 2 and 3.



Detector/scene plate inputs

If using 2 PIRs instead of a microwave detector, the PIR closest to the window will reference LUX and should be connected to Input 1.

Switch inputs

Each switch operates luminaires within the same colour dashed line

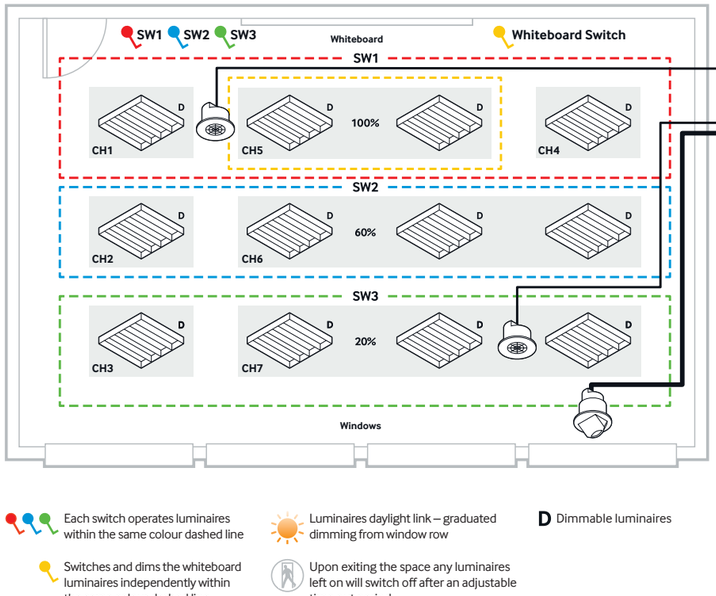
Switches and dims the whiteboard luminaires independently within the same colour dashed line

Luminaires daylight link – graduated dimming from window row

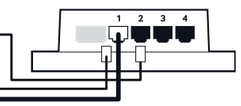
Upon exiting the space any luminaires left on will switch off after an adjustable time out period

D Dimmable luminaires

Config 13 – Classroom with 3 rows of luminaires working in absence mode. Whiteboard on channel 5.

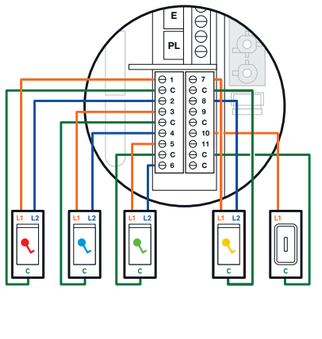


Detector/scene plate inputs



If using 2 PIRs instead of a microwave detector, the PIR closest to the window will reference LUX and should be connected to Input 1.

Switch inputs



Each switch operates luminaires within the same colour dashed line

Switches and dims the whiteboard luminaires independently within the same colour dashed line

Luminaires daylight link – graduated dimming from window row

Upon exiting the space any luminaires left on will switch off after an adjustable time out period

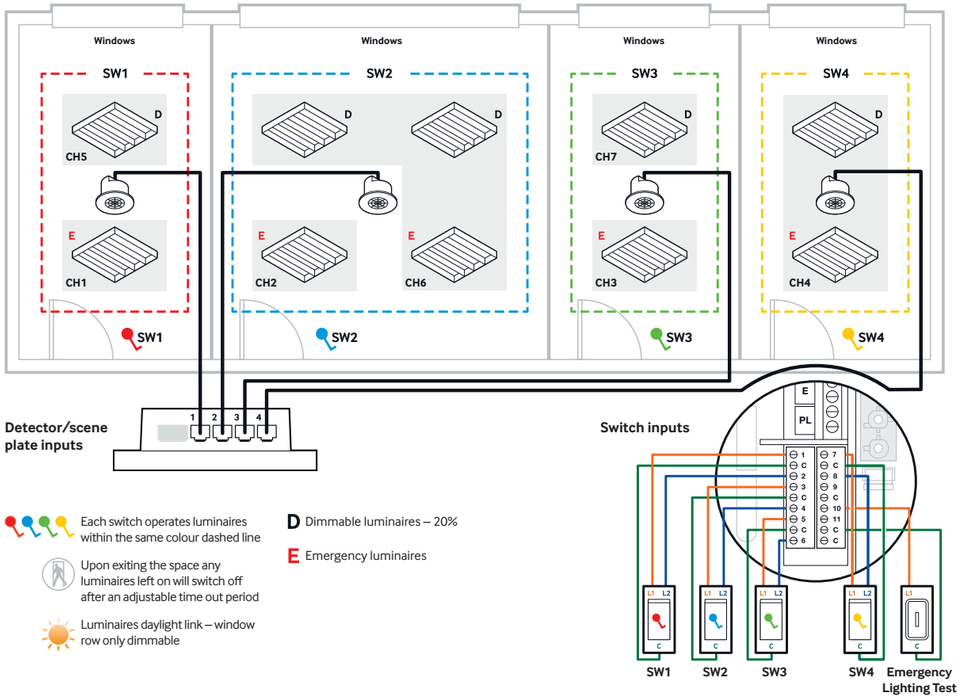
D Dimmable luminaires

Commercial/Retail

Perfect stand-alone solution for small to medium-sized commercial spaces, and the changeable retail model.

- **Corridor hold** – For safety reasons, lights are kept on for entry exit routes, even when an adjacent area is unoccupied.
- **Scene setting** – Scene selection allows the recall of pre-programmed lighting levels to create different moods or to suit different uses within an environment.
- **Master on switch** – This switch turns on all the luminaires connected to an LCM regardless of channel or input arrangement.
- **Open port function** – No need to access the LCM to set the pre-set configuration.
- **Modular mechanics** – Luminaire leads, presence detectors and scene plates simply plug into the LCM making Vitesse Plus simple and easy to install without complicated wiring.

Config 1 – 4 cellular offices individually controlled with a presence detector and or manual switch in each.



Each switch operates luminaires within the same colour dashed line

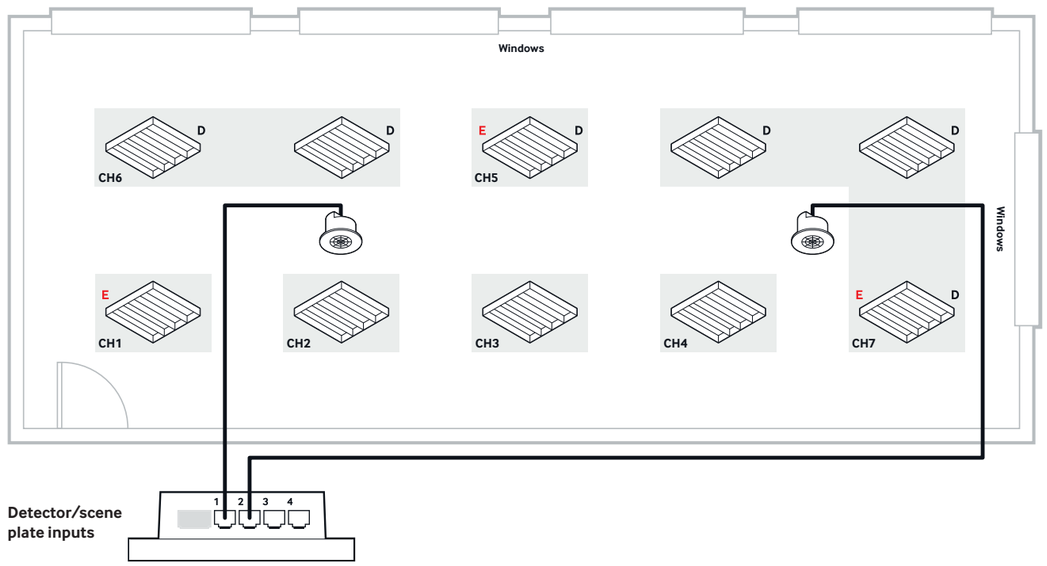
Upon exiting the space any luminaires left on will switch off after an adjustable time out period

Luminaires daylight link – window row only dimmable

D Dimmable luminaires – 20%

E Emergency luminaires

Config 3 – Open plan office working in presence mode with channels 5, 6 and 7 daylight dimming for perimeter row(s).



Upon entering the space luminaires will automatically switch on

Upon exiting the space any luminaires left on will switch off after an adjustable time out period

Luminaires daylight link – window row only dimmable

D Dimmable luminaires – 20%

E Emergency luminaires

System Products

Vitesse Plus Lighting Control Modules

The latest generation of Vitesse Plus LCM has been engineered to adapt to changing environments.

With 7 channels and 12 outputs, the installation process is simplified. Up to 6 PIRs or 3 microwave detectors can be connected to the Vitesse Plus LCM, maximising the capacity to save energy and money.

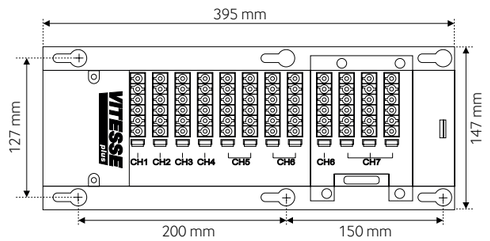
With 18 SELV connections and the ability to facilitate graduated dimming, the Vitesse Plus LCM takes lighting control to the next level of functionality.

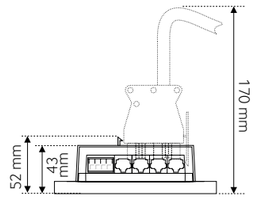
Key features:

- 12 outputs
- 7 channels
- 4 RJ45 inputs
- SELV switching
- DALI or DSI dimming
- Graduated dimming
- Scene setting
- Absence recovery
- Switch detection time

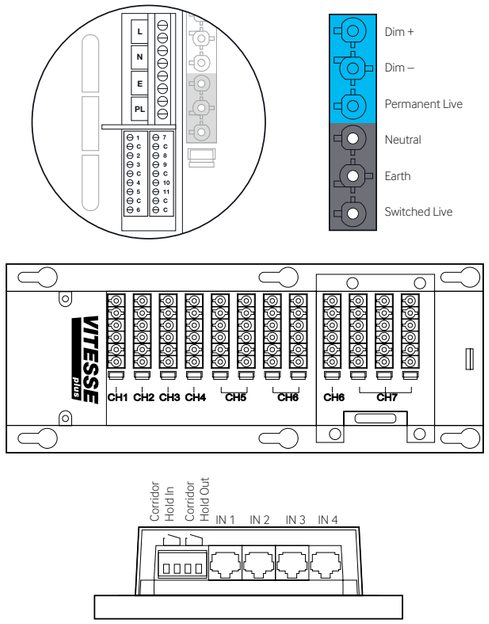
Order Code	Description
VITP7-MB	Pluggable LCM, 7 x switching channels
VITP7-MB-DD	Pluggable LCM, 7 x DALI/DSI digital dimming channels
Maximum number of DIMMABLE ballasts = 10 per channel or 50 per LCM subject to electrical load constraints.	

Dimensions





Connections



Scene Control Plate

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 VITP7-MB and suitable dimming luminaires different lighting scenes can be achieved for applications such as classrooms and meeting rooms.

Order Code	Description
VITP7-4SC-W	Scene plate with white cover
VITP7-4SC-SS	Scene plate with stainless steel cover

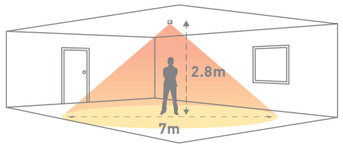
System Products

Vitesse Plus Presence Detectors

Compact PIR

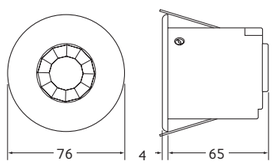
- Low profile design
- RJ45 connection
- Can be flush or surface mounted (see page 16)
- Infrared programmable

Detection pattern



high < sensitivity > low

Dimensions

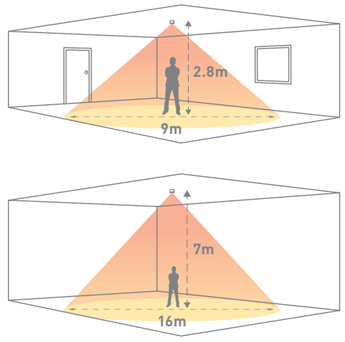


Order Code	Description
VITP7-EBDSPIR	Compact, flush/surface mounted, ceiling, PIR, presence/absense detector

Miniature PIR

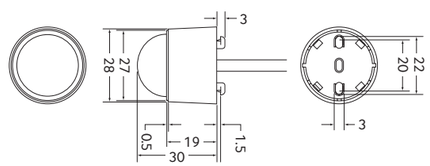
- Small and unobtrusive design
- RJ45 connection – supplied with 300mm lead
- Multiple mounting options included
- Infrared programmable

Detection patterns



high < sensitivity > low

Dimensions

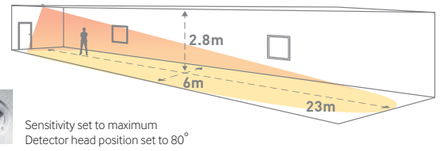


Order Code	Description
VITP7-MINPIR	Miniature, flush/surface/side mounted, ceiling, PIR, presence/absence detector
RJ45-COUPLER	RJ45 coupler

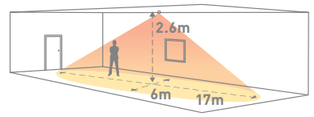
Adjustable head microwave

- Adjustable head
- Adjustable detection sensitivity
- RJ45 connection
- Can be flush or surface mounted (see page 16)
- Ideal for corridors or corner mounted applications
- Infrared programmable

Detection patterns



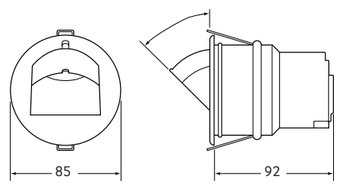
Sensitivity set to maximum
Detector head position set to 80°



Sensitivity set to maximum
Detector head position set to 0°

high < sensitivity > low

Dimensions



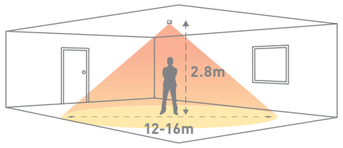
Adjustment 0°-90°

Order Code	Description
VITP7-MWS3A	Adjustable head, flush/surface mounted, ceiling, microwave, presence/absence detector

Compact microwave

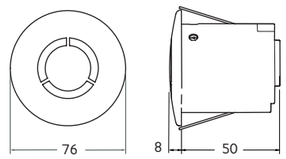
- Adjustable detection sensitivity
- RJ45 connection
- Can be flush or surface mounted (see page 16)
- Various regional frequencies
- Infrared programmable

Detection pattern



high < sensitivity > low

Dimensions



Order Code	Description
VITP7-MWS6	Low profile, flush/surface mounted, ceiling, microwave, presence/absence detector

Vitesse Plus Accessories

Handsets

Used to programme pre-set configurations.

Order Code	Description
UNLCDHS	Professional, programming/commissioning LCD handset

Tee modules

Used to provide a simple interlinking connection of lighting within fixed wiring installations.

Order Code	Description
BVITM6-L3T500	6 pole, 3 core, 0.5m lead, 1mm², tee module, white housing, black/grey coding
BVITM6-L4T500	6 pole, 4 core, 0.5m lead,1mm², tee module, white housing, black/grey coding
BVITM6-L5T500	6 pole, 5 core, 0.5m lead,1mm², tee module, white housing, black/grey coding
BVITM6-L6T500	6 pole, 6 core, 0.5m lead,1mm², tee module, white housing, black/grey coding

Accessories

Order Code	Description
DBB	Surface mount box for use with VITP7-MWS6 and VITP7-EBDSPIR
MWS3A-DBB-WBKRT	Wall mounting bracket for MWS3A series

Luminaire leads and connectors

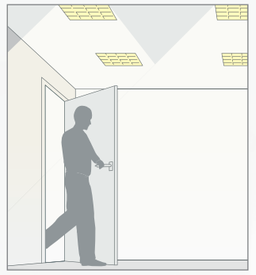
All Vitesse Plus models use black/blue connectors.

Order Code	Description
BVITM6L303100W	6 pole, 3 core, 3m, 1mm², LSF, luminaire lead, white plug, black/blue coding
BVITM6L305100W	6 pole, 3 core, 5m, 1mm², LSF, luminaire lead, white plug, black/blue coding
BVITM6L308100W	6 pole, 3 core, 8m, 1mm², LSF, luminaire lead, white plug, black/blue coding
BVITM6L403100R	6 pole, 4 core, 3m, 1mm², LSF, luminaire lead, red plug, black/blue coding
BVITM6L405100R	6 pole, 4 core, 5m, 1mm², LSF, luminaire lead, red plug, black/blue coding
BVITM6L408100R	6 pole, 4 core, 8m, 1mm², LSF, luminaire lead, red plug, black/blue coding
BVITM6L503100W	6 pole, 5 core, 3m, 1mm², LSF, luminaire lead, white plug, black/blue coding
BVITM6L505100W	6 pole, 5 core, 5m, 1mm², LSF, luminaire lead, white plug, black/blue coding
BVITM6L508100W	6 pole, 5 core, 8m, 1mm², LSF, luminaire lead, white plug, black/blue coding
BVITM6L603100R	6 pole, 6 core, 3m, 1mm², LSF, luminaire lead, red plug, black/blue coding
BVITM6L605100R	6 pole, 6 core, 5m, 1mm², LSF, luminaire lead, red plug, black/blue coding
BVITM6L608100R	6 pole, 6 core, 8m, 1mm², LSF, luminaire lead, red plug, black/blue coding
BVITM6-LPW	6 pole, male connector, white plug, black/blue coding
BVITM6-LPR	6 pole, male connector, red plug, black/blue coding
BVITM6-LPW-F	6 pole, female connector, white plug, black/blue coding
BVITM6-LPR-F	6 pole, female connector, red plug, black/blue coding

Technology Guide

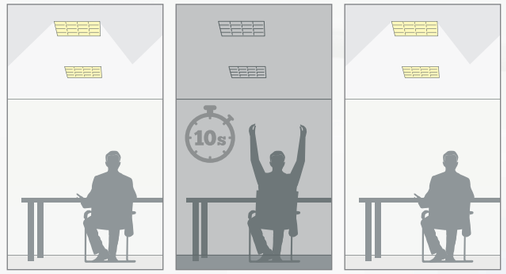
Presence and absence detection explained

The choice between presence and absence detection for different spaces can make a big difference in user-friendliness and the amount of energy saved.

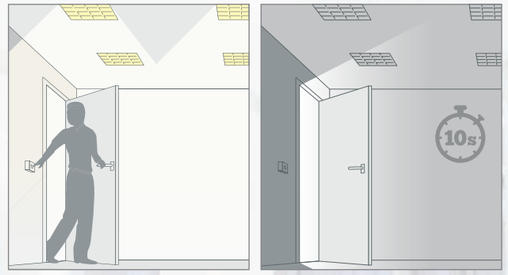


Presence Detection: Detectors will switch on lighting automatically when a person enters the room, and switches off lighting automatically when no movement is detected.

Absence Detection: Upon entering the room the person switches on the light as normal, but on leaving the detector switches off the lighting automatically. Lights can also be switched off manually.

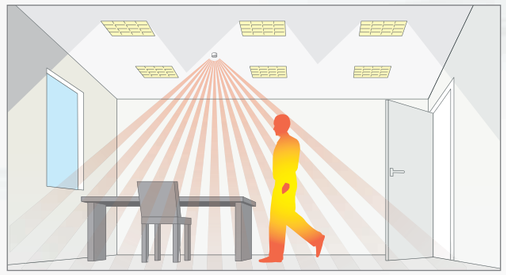


Absence Recovery: After an occupancy time out period has elapsed in absence mode, the unit temporarily enters a presence mode for 10 seconds allowing the occupants movement to bring the lights back on.

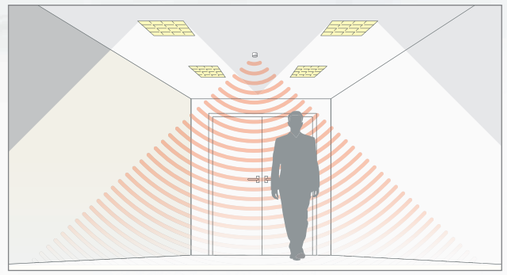


Switch Detection Time: This ensures that if a switch is activated and no movement is detected the lights will switch off after 10 seconds, minimising unnecessary lit space.

PIRs and microwave detectors compared



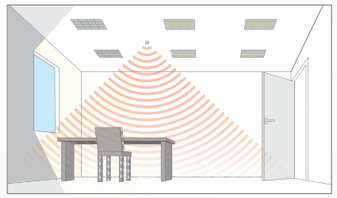
PIR (Passive Infrared) Detection: PIR detectors work on detecting the movement of body heat. They are better suited to smaller spaces or where a defined detection pattern is required.



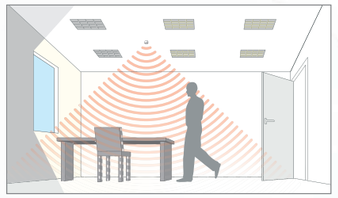
Microwave Detection: Microwave Detectors are sensitive to objects that move, with much greater coverage and sensitivity. They can detect through glass, therefore careful consideration on location is needed in certain applications.

Switching with lux level sensing

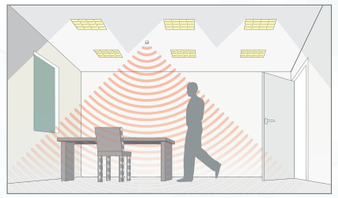
Vitesse Plus detectors have built-in adjustable lux sensors which will keep the lighting switched off if there is sufficient natural light.



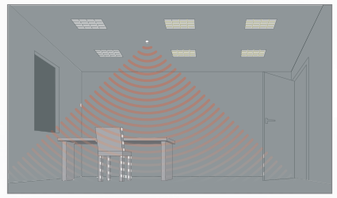
No presence detected, daylight, lights off.



Presence detected, sufficient daylight, lights off.



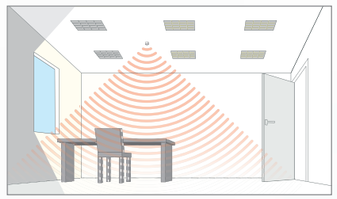
Presence detected, insufficient daylight, all lights on.



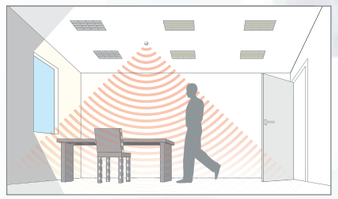
No presence detected, lights off.

Maintained illuminance with absence or presence detection

In addition to lux level sensing, Vitesse Plus detectors are able to provide automatic control of lighting output.

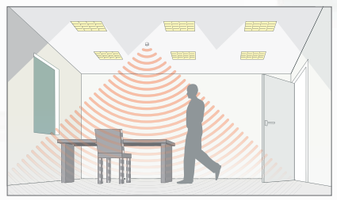


No presence detected, daylight, lights off.

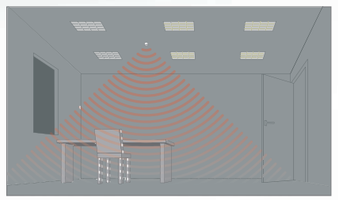


Presence detected, sufficient daylight, lights off.

Presence detected, some daylight. Lights on and dimmed to maintain lux level.



Presence detected, insufficient daylight. Detector measures and implements maintained illuminance.



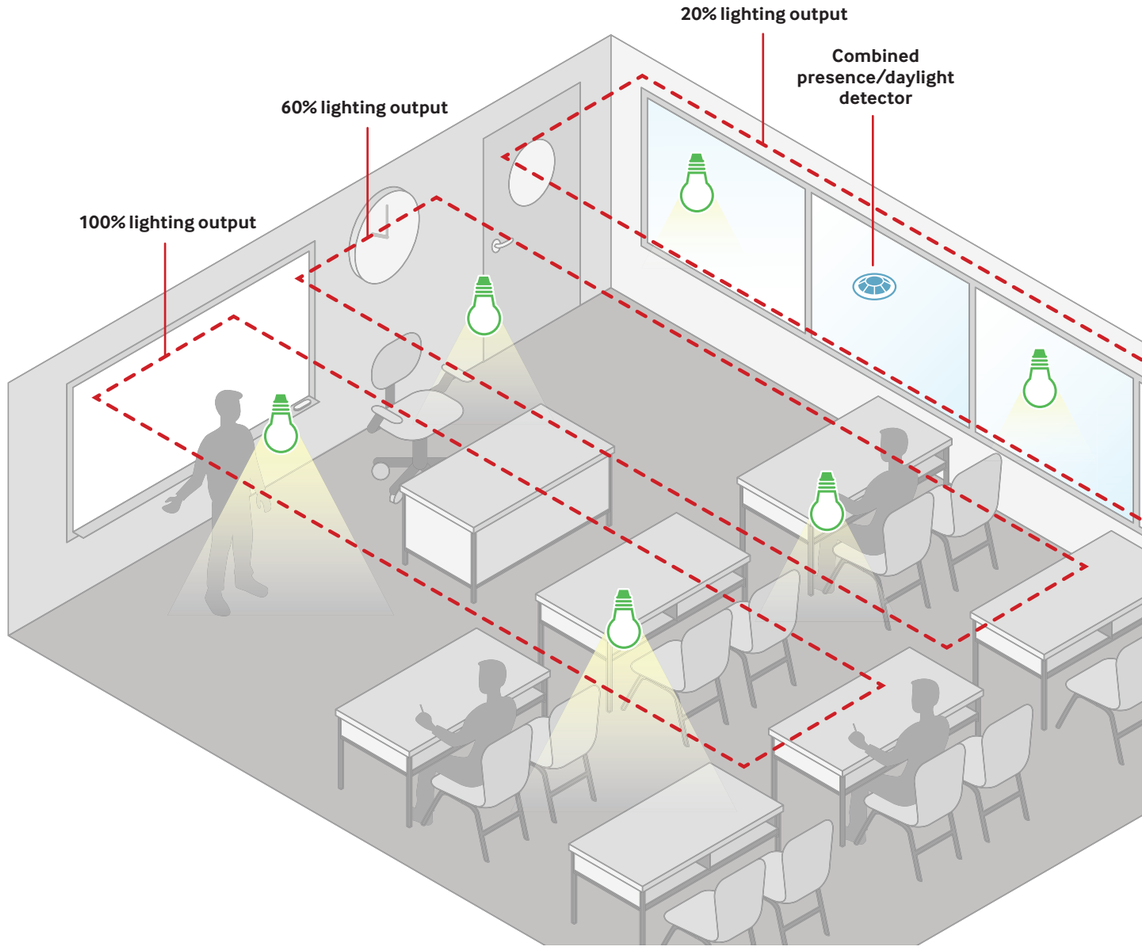
No presence detected, lights off.

Additional features and applications:

- Provides either **presence or absence detection with maintained illuminance** in an office or area, allowing the user to manually override the maintained level, by dimming up or down, or switching off and on via wall switch.
- After occupation and the time delay has ended, **the dimming level can be programmed to dim for a time period before switching off, or programmed to never switch off,** but instead stays at a low dimmed output during non-occupation. Very useful for warehousing with 24/7 operations, or corridors for health and safety reasons.
- **Vitesse Plus detectors can also be programmed to switch on and off (at separate light levels)** according to the local light level when the area is occupied, with or without a time delay (to avoid nuisance switching). This can be programmed as well as maintained illuminance on the same sensor.
- Many lighting schemes can be 'over lit' because of the initial brightness of the new lamps, over compensation for dirt/lamp life, and over-design due to room shape and size. **Vitesse Plus detectors allow installed lighting to be 'dimmed' to achieve the correct illuminance level,** and increase gradually to compensate for the anticipated light loss over time.

Graduated dimming

The lighting within a space dims progressively from the source of natural illuminance in response to changes in natural light levels. This maximises the use of daylight within a space and minimises energy consumption and over lighting of the space.



Our Service Philosophy

Customer needs

With over 40 years of experience, CP Electronics recognise the individual needs of businesses; how energy control has to work within their overall objectives.

Develop solutions

Our product depth and quality enable us to develop solutions in commercial, public sector and domestic environments of all sizes.

- Our sales engineers are expert at working closely with you to achieve effective and efficient results.

Deliver solutions

Attention to detail and quality has made CP Electronics a name to trust.

- Exceptional reliability has enabled us to provide a 5 year warranty as standard, on all our products.

Implement & support solutions

CP Electronics offer an unrivalled level of technical support to our customers during specification, installation, commissioning and maintenance. You will benefit from:

- Experienced engineers with a broad knowledge of specifier, contractor and client requirements.
- Comprehensive advice that you can rely on with all aspects of lighting control design and installation.
- Telephone and on-site support as necessary.
- Downloadable product user guides from www.cpelectronics.co.uk.
- APPs free downloadable lighting specifications that are Part L building regulation and BREEAM compliant. For more information on CP APPs please see www.cpelectronics.co.uk/cp-apps.

Commissioning, maintenance and training

CP Electronics' Technical Services division delivers unrivalled levels of support to customers during specification, installation, commissioning and maintenance. This ensures the best use of lighting control for the end user.

Commissioning

Technical Services provides a comprehensive commissioning service which can include a period of on-site presence, a dedicated handover experience and a 5 year warranty on all CP Electronics' products.

Maintenance

Maintenance protects the customer's investment and gives peace of mind, and a scheme that fits their needs. If required, CP Electronics provides a tailor-made contract which offers further flexibility.

Training

CP Electronics' Technical Services shares structured information through training modules on all its technology by updating customers continuously on product development and legislation.

Delivering Projects Together

Newcastle Performing Arts College


Brighton and Hove Albion FC


West Dorset District Council

Newcastle Performing Arts College

Building:
State-of-the-art £5.5 million centre includes 250 seat theatre, 10 recording studios and 9 large dance studios.

Brief:
Deliver a lighting control solution that would surpass the needs of each individual space.

Solution:
Vitesse Plus was chosen as it offered many advantages for the end user, which included multi-channel switching, PIR and switch control, dimming options and, if required, daylight linking.

Fact:
The building is now rated BREEAM 'Excellent'.

Brighton and Hove Albion FC

Building:
Includes eleven full and half size pitches, accommodation, a gym and more.

Brief:
The client required a system that can be easily be incorporated into any building design and can be configured to control specific rooms, floors or entire multi floor building functions.

Solution:
Vitesse Plus and RAPID systems were installed throughout the distinctive Y shaped, training and teaching facility for Brighton and Hove Albion.

Fact:
The whole facility has been designed to meet the Premier League's Elite Player Performance Plan.

West Dorset District Council

Building:
Green modern offices.

Brief:
To help the council immediately reduce its running costs and its impact on the environment through the installation of CP's energy saving products.

Solution:
Vitesse Plus offered West Dorset District Council a high level of lighting control without the need for a control network.

Fact:
The new building has immediately helped the council reduce its running costs and its impact on the environment.

bsi. ISO 9001 Quality Management FM 45789 ISO 14001 Environmental Management EMS 534520 ISO 45001 Occupational Health and Safety Management OHS 642036

ESTA energy services and technology association

CE

MEMBER KNX

CPD MEMBER Construction CPD Certification Service

CP electronics ENERGY CONTROLS

+44 (0)333 900 0671
info@cpelectronics.co.uk
www.cpelectronics.co.uk

connect with us

CP Electronics, a business unit of Legrand Electric Limited, Brent Crescent, London NW10 7XR, UK

A brand of legrand®

VERSION 3.4 PM-VITP7-BROCHURE 18623 Brochure by MicroGraphix