

## Switch on savings

Philips OccuPlus occupancy detector -Simple solutions for demanding installations





## Switch off lights, switch on savings

Rising energy costs and environment regulations require us all to think more responsibly about our energy consumption. But creating a scheme with energy-efficient lighting controls that meets the technical demands of an application can be more complex than you might initially think. What's more, if people find it difficult to install or operate, all your hard work goes to waste.



What you need is a hassle-free system that's easy to use and works perfectly. Philips can help you to make a difference with intelligent systems that minimize wasted energy and maximize efficiency.

An increase in mobility and connectivity has meant that many people now work in far more dynamic environments.

However, many offices are not properly adapted to take advantage of this, lighting entire spaces instead of just those areas where it is really required. There are always some lights that could be switched off at some points during the day, for example when people are away from their workstations. Lights that are left on unnecessarily make a considerable contribution to overall energy costs. So when you switch those lights off, you can switch on the savings.

Philips OccuSwitch and OccuPlus do just that.

## Maximum savings, minimum effort

Our lighting controls have automatic movement detectors that switch lights on and off for you. Intelligent solutions that detect the slightest movement and are quick and easy to install, so you can start savings up to 30% with the minimum of effort.

#### Daylight and dimmable controls

The OccuPlus optimizes energy savings with intelligent daylight controls. When the system detects appropriate levels of light, the luminaires will be dimmed or even switched off, saving up to 70% (on window-side luminaires). It also dims lights in surrounding areas when they're unoccupied, creating a comfortable environment that always feels safe to work in. What's more, with the LED energy indicator you can see how efficient the system is. The traffic light system changes from red through to green to show you what level of energy savings you're making throughout the day.

#### **Easy installation**

OccuPlus and OccuSwitch are easy to install. Cabling requires no additional attention and fits in with most common installation practices. And the job becomes even easier when standard cable systems (like Wieland) are used. Both systems are also easy to test and work straight out of the box.





#### **Additional features**

We've also included features to make OccuPlus and OccuSwitch even more effective. For example, a retractable shield can screen off areas, such as adjacent corridors, that may activate the unit unnecessarily. And the remote control function can be used to overrule the system. The occupancy-function also has a smart timer that automatically delays switching the lights off in case the occupants of the room are moving less than usual. What's more, they can be used in parallel operation, even when installed on different mains groups.

#### **Applications**

OccuPlus and OccuSwitch are suitable for a wide range of applications including:

- Offices
- Corridors
- Schools
- Hospitals
- Toilets
- Or any other low occupancy area



Retractable shield



# Optimise lighting and savings with OccuPlus

Creating a lighting scheme that optimizes energy savings, rather than increasing them by a token amount, can be a real challenge. But now there's a way to open up more possibilities, with a lighting control system that's always up to the job.

> OccuPlus is a best in class solution that's perfect for any installation. The occupancy and daylight controls save up to an average of 55% on energy costs. And because it's so versatile, it fits in with a wide variety of applications, with features you may not realise you need until some time in the future.



## The OccuPlus family consists of 3 versions:

- Basic OccuPlus unit in Basic version.
  Two DALI outputs for window and corridor luminaires (without commissioning).
- Advanced Advanced version of the OccuPlus. Up to 22 OccuPlus units can be connected in parallel occupancy mode. Has one DALI output and requires commissioning for window and corridor operation.
- BMS OccuPlus with DALI interface to link into a building management system (BMS). Can be used with any DALI controller or gateway compliant to the DALI standard. Has one DALI output and requires commissioning for window and corridor operation.



# Simple energy savings with OccuSwitch

OccuSwitch is a stand-alone movement detector that switches lights off when an area is vacated. A simple, yet effective way to reduce energy consumption by up to one third. OccuSwitch also has a fast payback time, a low total cost of ownership and helps you to comply with the latest EU building directives.

It's a versatile solution that helps you to maximize energy savings wherever it's installed. Compatible with any type of luminaire or lamp, the highly sensitive movement detector is not only perfect for offices, but also for storage rooms, toilets, corridors and lobbies, as well as spaces that are only occassionaly occupied during the day. OccuSwitch features daylight override as standard, which prevents the lights from being switched on when there is sufficient daylight. But with the option to include daylight switching you can improve its energy-saving potential even further.

The advanced version can be used in parallel occupancy mode (up to 10 units).



## Product information OccuPlus

## LRM2070 Basic LRM2080 Advanced LRM2090 BMS

OccuPlus unit for up to 15 luminaires (ballasts). The basic version has two outputs for window and corridor luminaires, the other versions require commissioning.

The advanced version can be used for parallel occupancy operation for up to 22 OccuPlus units. The building management system (BMS) version has a DALI interface to link into any BMS with full compliant DALI controllers or gateways.



## LRH2070 Ceiling mounting box

Ceiling box for surface mounting of OccuPlus (LRM207x, LRM208x, LRM209x).



### LCU2070 Push-button unit

The LCU2070 is connected to the DALI channel and requires no additional power. It connects up to 4 contacts for 3 functions (on/off/dim) for instance window/corridor or general/blackboard light control.



IRT8097 Commissioning tool

Omniprog easy, simplified commissioning tool for OccuPlus, for light level calibration, window/ corridor programming and installation test.



LCC2070 Wieland cable (LRM2070) LCC2080 Wieland cable (LRM2080 and LRM2090) Extension cables with Wieland connectors (GST18 and BST14) for OccuPlus.







IRT8099/10 Commissioning tool

Omniprog, commissioning tool for OccuPlus. Easy to use and inexpensive tool to adjust the functionality set parameters, perform an installation test and calibrate light levels.

## Product information OccuSwitch

### LRMI070 Basic

### LRMI080 Advanced

Movement detector with a built-in switch. Occuswitch can switch any load up to 6A and control an office area of around 20 m<sup>2</sup>. A detachable mains connector enables easy installation and mounting of Occuswitch in the ceiling. A separate Wieland cable is available for easy, fast and trouble free installation. LRM1080 is the same but with parallel operation (up to 10 OccuSwitch units), local override and absence mode.







LCC1070 Wieland cable GSTi8 3-pole Extension cable for OccuSwitch with Wieland connection (LRM1070, LRM1080).



LRH1070 Sensor surface box Ceiling box for surface mounting of OccuSwitch (LRM1070, LRM1080).

## Application examples

## ✓ OccuPlus✓ OccuSwitch

### Basic

Standard (open plan) office. The units are used in grids of 20m<sup>2</sup>. For larger grids an extension sensor (LRM8118) is required. Each grid operates individually. The OccuPlus allows dimming before it switches off to improve comfort for adjacent areas that are still occupied.



## ✓ OccuPlus✗ OccuSwitch

### BMS

Each grid operates individually, but can be managed from a BMS. Functions like central on/off emergency state, status (lamp/ballast broken, lights on/off) reports from OccuPlus to BMS, are possible using the DALI protocol.



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### Advanced

Similar to example on the left, but if one sensor detects occupancy it will switch on all connected grids. The OccuPlus even allows a lower background level to be used in non occupied areas. If all areas are vacated, lights will be switched off for the whole floor.



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Standard classroom. For larger classroom, or specific (e.g. computer or lab) rooms an extension sensor (LRM8118) is required. In addition to dimming, the OccuPlus allows seperate control of window, corridor and/or blackboard lighting, for instance with a DALI wired switch (LCU2070).



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Use of the extension sensor in areas larger than 20m<sup>2</sup>. The sensor (LRM8118) is connected to the DALI channels and requires no additional power. The sensor covers an additional 20m<sup>2</sup>.





Typical set-up for toilets. The OccuPlus allows different timing for the different areas.



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