

This is all you need for your smart lighting system



Lighting can account for up to 80% of a warehouse's energy bill, so it must be as efficient and cost-effective as possible. In addition, it's important to create the right visual conditions to enhance safety on the work floor and to improve productivity. The Interact Pro system was developed to deliver high quality, instant-on light that saves energy, is easy to install and future proof.

- Ideal for refurbishment and new buildings no additional (DALI-) control wires needed
- Fast Installation after mounting the luminaires, lamps and controls, the system is ready to use in a few clicks
- High flexibility customization of the system is possible at any time
- Perfect for every project with up to 4000 light points
- No additional cost system configuration via the free Interact Pro app
- No local customer IT-Network integration needed commissioning via smartphone app and Bluetooth
- Upgrade possible at any moment by simply adding a gateway per network to access additional benefits such as connection of multiple user devices and analytics dashboard.

### Industry lighting design insights

### Uniformity

Use medium or wide beams in order to increase uniformity. High uniformity contributes to a comfortable workplace. For very high installation >10m a narrow beam is sufficient.



### Controls

When placing a presence detection sensor, consider entrances and exits to avoid going into a dark area. Also take into account high furniture and machinery. These can block the detection zone.

### Illuminance requirements

European norm (EN12464-1) requires  $\geq$  200 lux at task in an industrial hall, used for open good storage. Higher light levels increase visibility and safety. Recommended level at task is  $\geq$  300 lux.

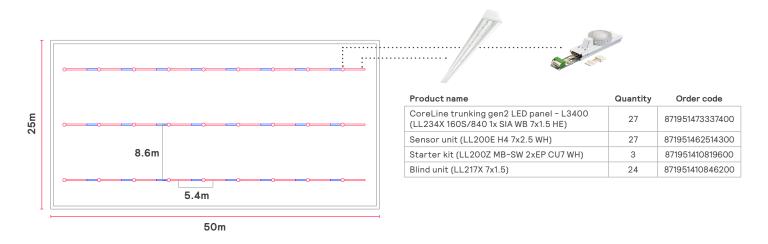
### Waterproof luminaires

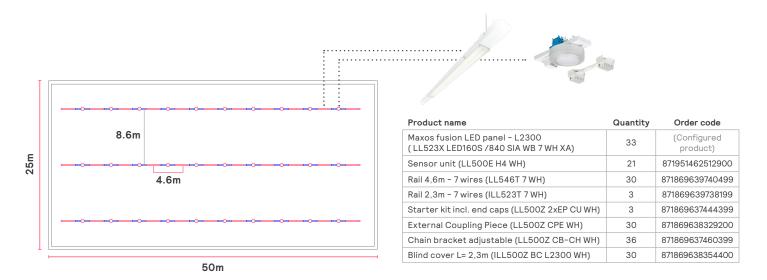
Many industrial environments are wet or dusty. Use waterproof luminaires for safe and reliable lighting.

### Installation guidance trunking

### Industrial hall with a typical luminaire arrangement and stand-alone sensors\*

Hall height: 9m; installation height: 8m





### **Benefits with Maxos fusion:**

- Liftetime: L80 100k hrs for Maxos fusion vs L80 50k hrs for CoreLine trunking
- 30% less installed power

<sup>\*</sup> This meets the modified lighting requirements for an industrial storage hall: Average 300 lux on working plane, 100 lux at wall, 50 lux at ceiling. Sensor design ensures full detection coverage in hall.

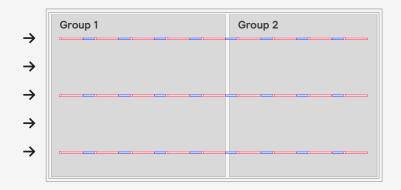
## Installation guidance – trunking

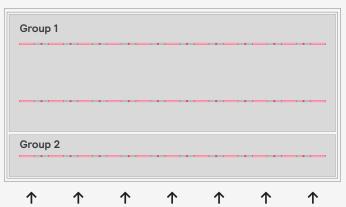
### **Define groups**

When all luminaires and sensor units are installed and the devices are discovered via the Interact Pro app you can assign them to a group. Each group can get its own switch on/off behaviour. In the app only the sensor devices are shown. The luminaires are controlled via the sensor devices. Multiple luminaires can be connected to 1 sensor (up to 4) but they appear as 1 device in the app. Further information can be found in the user manual: https://sme.interact-lighting.com.

#### Configuration example

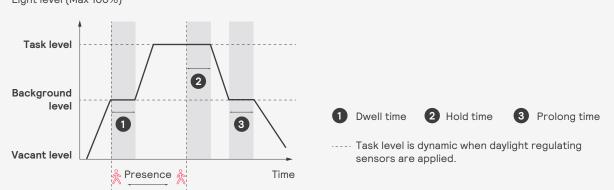
In below situations all sensor devices are assigned to two groups. When there is no activity in the hall, the light can be set to a **vacant level** (e.g. 10%). When movement is detected in group 1, the light in this area will boost to **task level** e.g. light output 100%. The light in group 2 will stay at **vacant level**. In case movement is detected in this area as well, also here the light will boost to **task level**. After e.g. 15 minutes (**hold time**) without any movement in group 1 or group 2, the light in that area goes to **background level** (e.g. light output 50%) during the **prolong time** (e.g. 5 min). After this **prolong time** the light goes to **vacant level** again.





#### Parameters info

Light level (Max 100%)

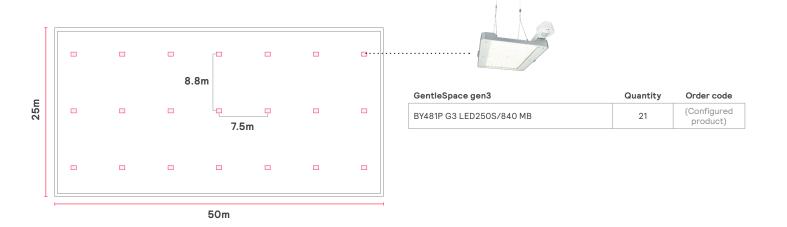


# Installation guidance – highbays

### Industrial hall with a highbay luminaire arrangement (sensor integrated)\*

Hall height: 11m; installation height: 10m





### **Benefits with GentleSpace:**

- · Lifetime: 100k hrs (vs. 50k hrs for CoreLine highbay)
- 30% less installed power (with GentleSpace HE version)
- 12,5% less luminaires needed

<sup>\*</sup> This meets the modified lighting requirements for an industrial storage hall: Average 300 lux on working plane, 100 lux at wall, 50 lux at ceiling. Sensor design ensures full detection coverage in hall.



# Installation guidance – highbays

### **Define groups**

When all luminaires with integrated sensor are installed and connected to the Interact Pro app you can assign them to a group. Each group can get its own switch on/off behaviour. Further information can be found in the user manual: <a href="https://sme.interact-lighting.com">https://sme.interact-lighting.com</a>.



#### Configuration example 1

In below situation all highbay luminaires are assigned to two groups. When there is no activity in the hall, the light can be set to a **vacant level** (e.g. 10%). When movement is detected in group 1, all highbays in this area will boost to **task level** e.g. light output 100%. The light in group 2 will stay at **vacant level**. In case movement is detected in this area as well, also here the light will boost to **task level**. After e.g. 15 minutes (**hold time**) without any movement in group 1 or group 2, the light in that area goes to **background level** (e.g. light output 50%) during the **prolong time** (e.g. 5 min). After this **prolong time** the light goes to **vacant level** again.



### Configuration example 2

In below situation the highbay luminaires are assigned to three different groups (group 3, 4 and 5). When there is no activity in the hall, the light can be set to a **vacant level** (e.g. 10%). When someone enters the hall via group 4, all highbays in this group will boost to **task level** e.g. light output 100% due to the integrated movement sensors. At the same time the lights in group 3 and 5 will stay at **vacant level**. The highbays in group 3 behave independently and are not linked to group 4 and 5. For example, when movement is detected around the most top left highbay only this highbay will boost to e.g. **task level** 100%. The other highbays in the group will stay at **background level**.

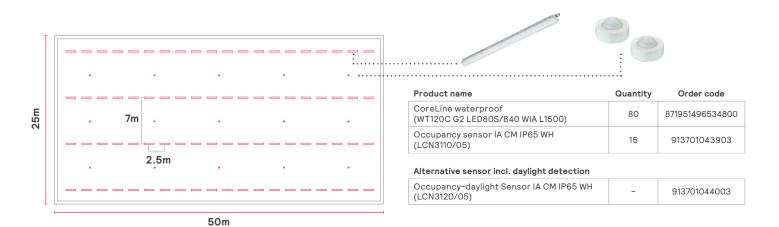


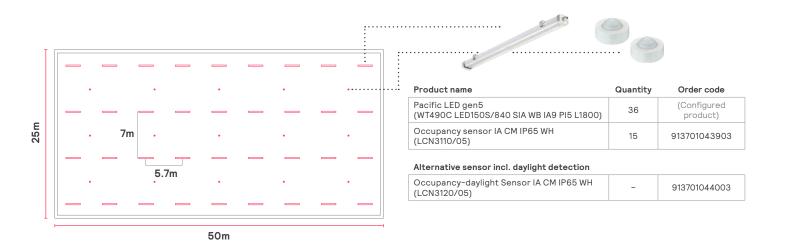


# Installation guidance - waterproofs

## Industrial hall with a typical luminaire arrangement and stand-alone sensors\*

Hall and installation height: 6m





### Benefits with Pacific LED gen5:

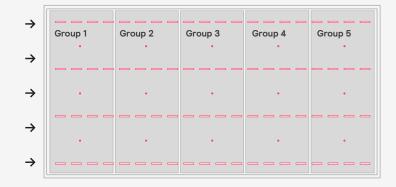
- · Lifetime: 100k hrs (vs. 50k hrs for CoreLine waterproof)
- · 24% less installed power
- 55% less luminaires needed due to higher lumen package
- · More eye comfort due to lower direct glare

<sup>\*</sup> This meets the modified lighting requirements for an industrial storage hall: Average 300 lux on working plane, 100 lux at wall, 50 lux at ceiling. Sensor design ensures full detection coverage in hall.

# Installation guidance – waterproofs

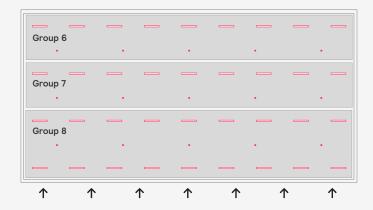
### **Define groups**

When all luminaires are installed and discovered via the Interact Pro app, you first assign the luminaires to groups. Each group can get its own switch on/off behaviour. Then you can add each external ZGP sensor one by one to its dedicated group, each group can have maximum 40 luminaires and 5 external ZGP sensors. On a zigbee network you can connect maximum 200 lights and 30 ZGP sensors. Per project, 20 networks can be created.



### Configuration example 1

In below situation all CoreLine Waterproofs are assigned to 5 different groups. Each group is connected to 3 external occupancy sensors to ensure a full detection coverage. When there is no activity in the hall, the light can be set to a vacant level (e.g. 10%). When movement is detected in group 1, the light in this area will boost to task level e.g. light output 100%. All the other groups will stay at vacant level. In case movement is detected in the other areas, also here the light will boost to task level. After e.g. 15 minutes (hold time) without any movement in one of the groups, the light in that area goes to background level (e.g light output 50%) during the prolong time (e.g. 5 min). After this prolong time the light goes to vacant level again.



### Configuration example 2

In below situation all Pacific LED luminaires and external sensors are assigned to 3 different groups (group 6, 7 & 8). Each group is connected to 5 external occupancy sensors to ensure a full detection coverage. When there is no activity in the hall, the light can be set to a vacant level (e.g. 20%). When movement is detected in group 8, the light in this area will boost to task level e.g. light output 80%. The other two groups will stay at vacant level. In case movement is detected in the other areas, also here the light will boost to task level. After e.g. 10 minutes (hold time) without any movement in one of the groups, the light in that area goes to background level (e.g light output 30%) during the prolong time (e.g. 5 min). After this prolong time the light goes to vacant level again.

### Sensor installation guidance

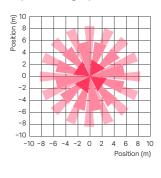
Easily enhance your smart lighting system with stand-alone wireless multi sensors (CM IP42 WH, IA CM WH 10/1, LCN3110/05, LCN3120/05) or integrated multi sensors (LL200E H4, LL500E H4), which are Interact Ready. They trigger automatic responses to turn on, off or dim the lights according to occupancy detection and daylight variation. The result? Great energy saving and more control flexibility.

#### Motion detection area

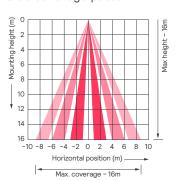
### With multi sensor integrated in luminaire

The image below shows the side and top view of the occupancy coverage based on the industry based NEMA test. It shows that the coverage ratio of the mounting height diameter at ground level is at maximum 1: 1.1. For example, if the mounting height is 12 m, the maximum diameter coverage is 13.2 m.

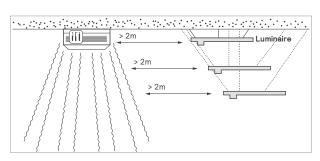
### Top coverage pattern

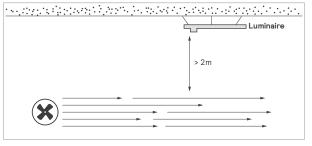


Side coverage pattern



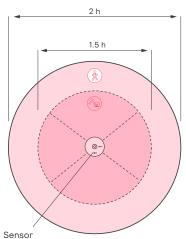
To prevent false triggers, the integrated sensor must bemounted more than 2 meters away from air vents in all directions, see below figures.



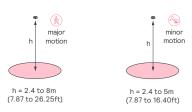


#### With stand-alone wireless multi sensor

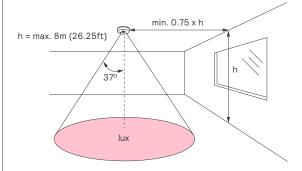
Field of view - motion



Valid at 25 °C with NEMA standard



Field of view - daylight



## Industry product overview

Below overview is a selection of Interact Pro products that are suitable for an industry environment.



lighting available from

### **PHILIPS**



#### Sensor units



For a complete product overview go to:

Philips.com/interact-ready

### 3 steps for the perfect lighting set up

- 1. Install your Interact Ready lighting and controls.
- 2. Download the Interact Pro app for free
- 3. Connect the lighting and controls to the Interact Pro app and set up your lighting groups and zones (or scenes).











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