

# LIGHT MANAGEMENT

## Smart Light Control

Multi Sensor Solution

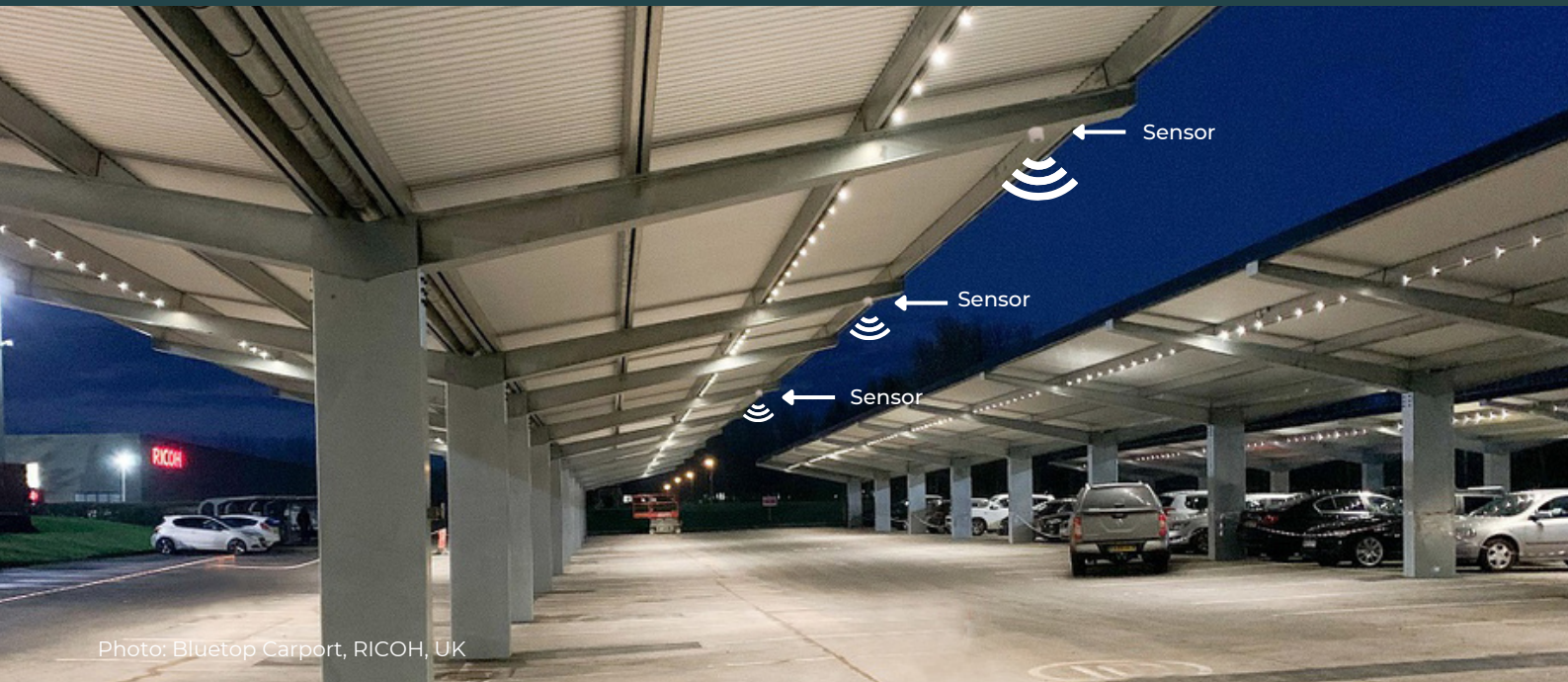


Photo: Bluetop Carport, RICOH, UK

	Basic Light Control	Smart Light Control	Advanced Light Management
LED iBond Technology platform	Simple Sensor Solution	Multi Sensor Solution	Management Solution
Motion <u>detection</u> - On/off luminaire	●	●	●
Daylight Sensor (LUX level)	●	●	●
Grouping of light panels		●	●
Twilight <u>functionality</u>		●	●
Master/Slave configuration		●	●
DALI v2.0 support		●	●
Time <u>scheduler</u> mode			●
Advanced <u>logic across zones</u>			●
Multiple Scenarios support			●
Tablet and PC interface control (Wifi)			●
Auto-test/monitoring of Emergency Light (Battery Back-up)			●
PIR - Build into light panel	○		
● Included ○ <u>Optional</u>			

## The right light when you need it

LED iBond offers a range of light control and management solutions designed to control light flux from detecting vehicle or people movement, daylight level and time of day to complete lighting scenarios for an entire area.

All with the aim of improving the lighting experience, increasing safety and maximizing energy savings.

LED iBond's Smart Light control solution is a simple but powerful self-contained plug-and-play solution requiring minimum configuration targeted smaller light installations or installations requiring only limited functionality.

LED iBOND

# Smart Light Control

## How it works

The solution is based on an application master controller with build-in motion sensor and daylight monitoring function. As an option, up to 25 slave sensors can be connected to a single master controller to form a complete self-contained solution that can control a larger number (>50) of power supplies driving LED luminaires.

### Night time operation

Natural light < 2-300 LUX



### Daylight monitoring function

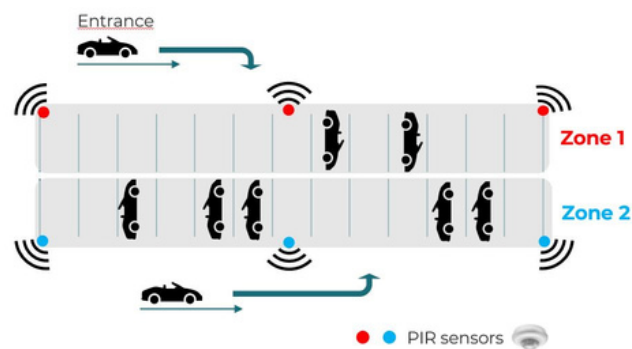
The master daylight sensor can tell the difference between natural light and artificial light from a lamp and will switch off the luminaires when ambient light is bright enough. When ambient light is below a target level, light is controlled by motion detection only.

### Motion detection

The motion sensors, by detecting the passage of people and vehicles, regulate the luminous flux by varying the intensity between two preset levels: a lower power level (twilight) and a higher power level, more suitable for the presence of people and traffic. Motion detection by any of the sensors in the solution, will trigger light to be turned on. When motion is not detected anymore, the light will be dimmed to the lower twilight level for a period before light turns off completely.

## Defining Light Zones

Public lighting in parking facilities covering larger areas can be even more energy efficient thanks to the definition of multiple light zones in the facility. Each light zone can then be controlled by its own self-contained master controller integrated with multiple motion sensors. The use of zones will ensure that light is only applied in areas with people and vehicle movement.



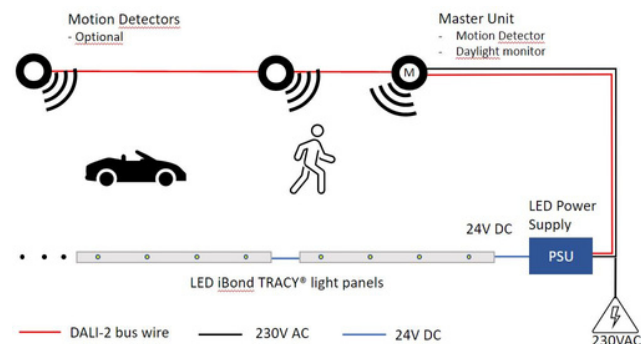
## Simple Configuration

LED iBond's Smart Motion Sensor Solution is based on the DALI-2 industry standard having high robustness and low maintenance. The installation is very simple as all slave sensors, the master controller, and all luminary power supplies are to be connected with a 2-wire bus for communication.

The configuration of the master controller are done with a simple hand-held IR remote configurator and takes less than 2 minutes.

The typical installation with just one master controller is for a small system of luminaires covering a small area like a charging station for electrical vehicles.

By placing more optional motion sensors at various entries to a parking facility or service station, it is possible to adjust the light dynamically following pedestrians or vehicles.



## Sensor mounting options



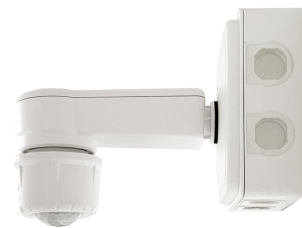
### Build-in mount

The motion sensor connector (Zhaga type) can be built directly into any surface like ceiling or roof structure using a  $\varnothing 20\text{mm}$  hole.



### Ceiling mount

Motion sensor mounted in an outdoor junction box for installation direct onto ceiling or roof overhang.

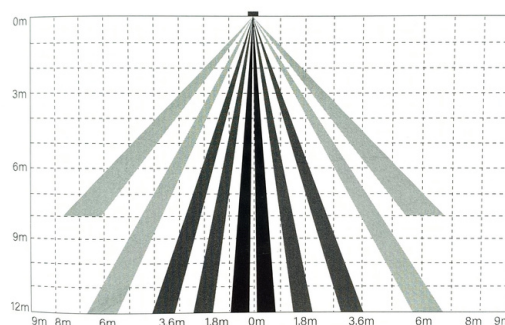


### Wall mount

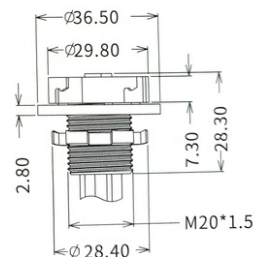
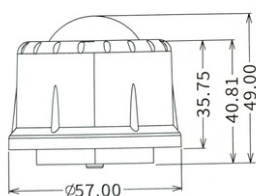
Motion sensor mounted on arm attached to an outdoor junction box for installation direct onto wall of building.

## Detection patterns

The motion sensors can detect motion all 360 degrees with a maximum distance of up to 12 meters. If the sensor is mounted on a ceiling, the motion sensor can cover an area of up to 6 meter (radius) around the sensor. The sensitivity of the sensors can be reduced when configuring the master controller.



## Dimensions



PIR motion sensor head  
(Optional white or black)

Connector (Zhaga book18))

Lead wires

