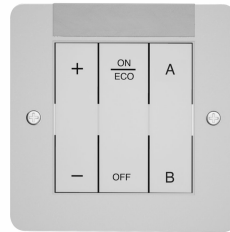


# Organic Response®

A completely wireless plug & play lighting control system.

Whitecroft  
lighting



Wall plate



Remote recessed sensor node



Classroom wall plate



Remote surface sensor node

# Overview

Organic Response® lighting control is based entirely on distributed intelligence. Each luminaire is fitted with a sensor node that allows it to respond to its environment and information from its neighbouring luminaire, so that the optimal amount of light is delivered when and where needed. Each sensor node is fitted with a motion sensor, ambient light sensor, infrared transmitter and infrared receiver that allows it to communicate wirelessly with each of its closest neighbours. Plus RF 2.4Ghz transmitter/receiver for cloud based communication.

The Organic Response® highbay solution currently does not offer daylight holdoff, however this feature will be added to the range soon.

## Out the Box Functionality

A sensor node sees occupancy and communicates that occupancy and light level to its neighbours via infrared signal. Its neighbours respond by outputting predetermined light levels and simultaneously transmits to further neighbouring sensor nodes. This propagates rapidly across the floor, minimising energy use without any programming. Once presence is no longer detected the luminaires will automatically drop to a low level light before switching off. This happens without programming and commissioning ensuring energy savings from the day of installation.

## Optimisation

The system can be easily optimised with no need for expert commissioning and is configurable via the Organic Response® app.

- Adjust light levels and dwell times
- Change lighting "Personalities"
- Activate daylight dimming
- Create independent and dependent zones
- Create customised scenes
- Pair wireless switches

## Response Portal

Utilise sensor information and gateways for cloud connectivity to provide a centralised view of building wide assets.

- Real time visibility of current utilisation and performance
- Detail historical data of utilisation and performance for trend analysis
- Real time system status with fault monitoring and email fault notifications
- Detailed historical fault data
- Cloud portal time based scheduling for control of building lighting
- BMS integration via BACnet
- Automatic over the air updates

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## Key Features

- Out the box functionality with zero programming
- Occupancy (presence and absence) detection
- Daylight sensing
- Scene setting
- Mesh network for robust wireless coms
- Create independent and dependent zones
- Can be used with power distribution units for simplified and speedy installation, see:
  - [Power Distribution Units](#)

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## Emergency Features

- Independent emergency lighting monitoring and testing
- Can be integrated into existing installations easily, without the need for additional wiring
- Testing and reporting to BS EN 62034 via a robust, reliable 2.4GHz radio frequency (RF) mesh
- Testing and monitoring in accordance with BS EN 50172
- Simple set up via web interface
- Automatic (programmable) testing of each emergency luminaire
- Reports downloadable as a PDF or XML file
- Test and system data is accessed via Ethernet from any web browser
- System commissioning is required

# Technical

- Infrared carrier frequency: 38kHz
- Distance between sensor nodes: IR comms 3 metres max
- Maximum sensor mounting height: 3.7 metres
- Sensor node ambient temperature: 0°C to 50°C
- Luminaire compatibility: DALI (Subject to Organic Response® list of approved drivers)
- SN3 integral sensor node driver load: 1 DALI device max
- ORG3RSN Remote sensor node driver load: 4 DALI devices max
- Ethernet gateway communication: IR comms, RJ45 (Cat5)
- Gateway node capacity: Max 150 sensor nodes per gateway
- Gateway max distance from node: 7 metres max
- Gateway security: 128bit AES, TLS, storage Amazon AWS IoT
- Wireless battery-less wall switch protocol: EnOcean Easyfit rocker switches available in white, and white/grey where contrast is required from the mounting surface
- Battery powered or Mains powered Infrared Organic Reponse switch available in white, and white/grey where contrast is required from the mounting surface
- BMS Integration BACnet protocol

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## To Specify

Wireless Proximity Limited Communication lighting control system. Integrated or remotely housed sensor nodes detect motion and ambient daylight levels and transmit and receive infrared messages wirelessly for intelligent decisions about light levels required. Can be customised to provide an interface with building management systems and vital building management information via a web based portal – as Whitecroft Lighting ORGANIC RESPONSE®.

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