

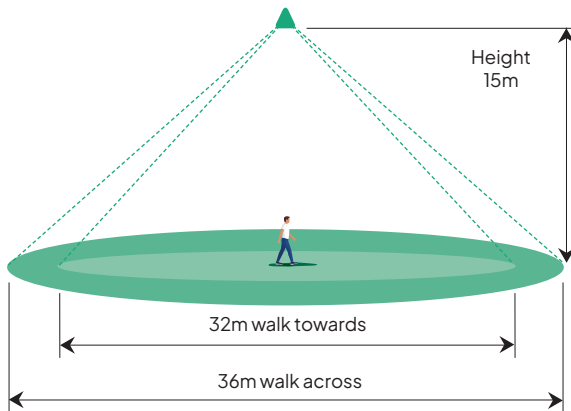
High Bay DALI DIMMING Sensor Range

Innovative lighting control sensors for industry professionals, by industry professionals.

Out of the box sensors work in standalone mode and can be set up using our free Cucumber Controls app on either Android or iOS devices. Need to network devices together? Then not a problem as wireless networking is included as standard. Using the same free app users can set groups of detectors to work together to provide tailor made solutions.

- 2 part modular construction
- Colour coded housings = yellow for switching; green for dimming
- Suitable for either surface or flush mounting
- Large wiring compartment with push-fit terminals including Earth connections
- Quick setup menu reducing time on-site for programming
- Over the air software updates

Detection range

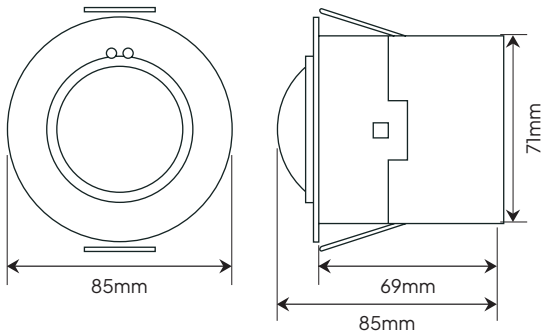


PIRDMHBR
Range



Specifications	
Supply Voltage	100VAC to 230VAC
Supply Frequency	50/60Hz
Relay Max. Output Current	6 Amps @ 230VAC
No of DALI Drivers	10 max. using sensor relay (Please refer to Fig.1 wiring diagram)
	20 max. not using sensor relay (Please refer to Fig.2 wiring diagram)
Circuit Protection	≤10A MCB Type C
Parasitic Power Consumption	498mW
Terminal Capacity	0.5mm ² to 1.5mm ²
Time Out Period	1 second to 240 minutes
Working Temperature	-10 to +35°C
Impact Resistance	IK04
IP Rating (flush mounted)	Standard versions: IP20
	IP versions: IP65
Insulation Class	Class II
Unit Weight	0.156kg
Material (Casing)	ABS Dev962 UL 94 VO
Compliance	2014/35/EU Low Voltage Directive 2014/30/EU Electromagnetic Compatibility Directive 2014/53/EU Radio Equipment Directive 2011/65/EU Restriction of Hazardous Substances (RoHS) Directive
BLE (Bluetooth) Transceiver	
Protocol	Bluetooth
Operation frequency	2.4 GHz
Transmission Power	10 dBm
Typical Range (indoor)	10 to 30m max. in free air with direct line of sight

Dimensions



Wiring

Terminate cables into connections as per wiring diagrams below and fit wiring cover.

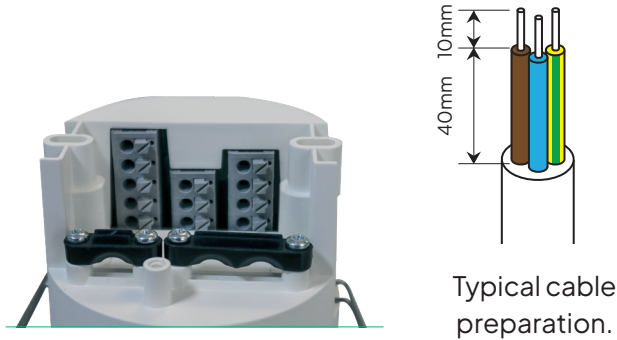
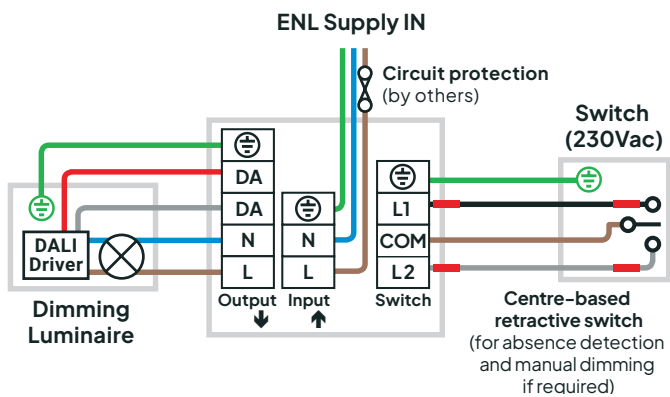
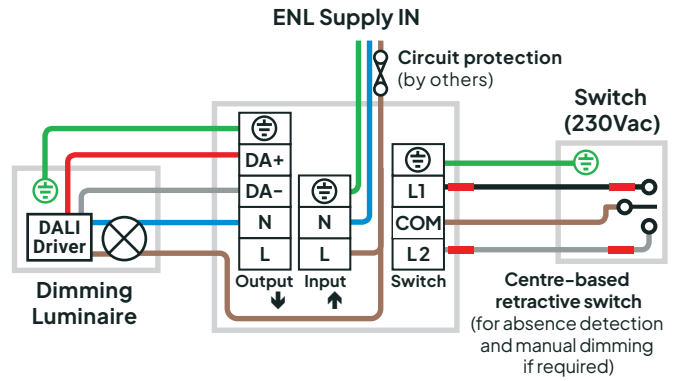


Fig 1.



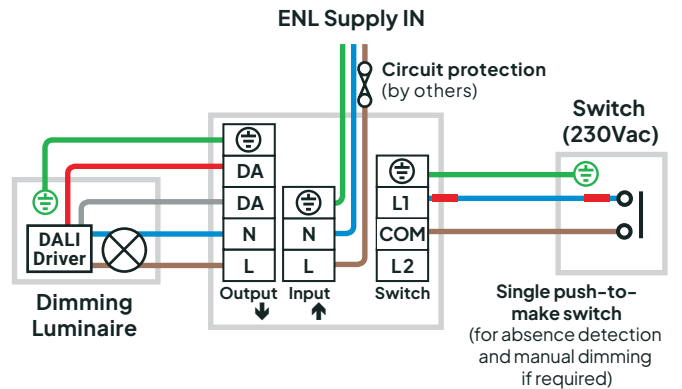
Wiring diagram for up to 10 drivers using Switched Live relay output. If wiring to more than 10 drivers, refer to Fig 2.

Fig 2.



Wiring diagram for up to 20 dimming drivers, not using the sensor relay output. Driver(s) have permanent live feed; they switch and dim using DALI dimming driver connections.

Fig 3.



Wiring for alternative switch type, using a single push-to-make switch.

Please use **L1** and **COM** sensor terminals for manual switch connections.

The Fig.2 arrangement for live supply to the luminaires (not using the sensor's relay output), can also be used with this switch type.

Switch activation:

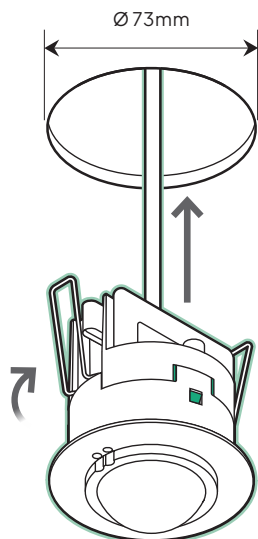
- Quick press and release = On / Off
- Press & Hold = Manually dims up / down
- Release switch, then Press & Hold again = Manually dims in opposite direction.



WARNING: This device should be installed by a qualified electrician in accordance with the latest edition of the UK Wiring regulations.

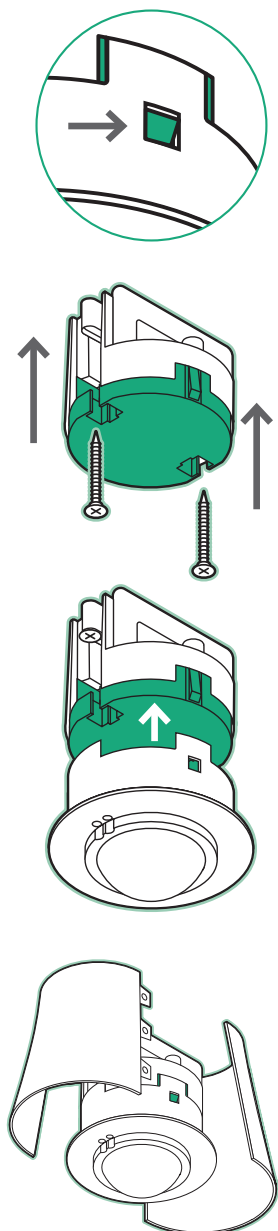
Flush fixing

- 1) Drill a $\varnothing 73\text{mm}$ hole in the ceiling.
- 2) Wire connections as shown opposite, and fit wiring cover.
- 3) Push springs upwards and insert the sensor into the hole.



Surface fixing

- 1) Separate head and power supply by pressing the green release lug.
- 2) Remove springs by pressing spring legs together, and unhook them from the power supply body.
- 3) Wire connections as shown opposite, and fit wiring cover.
- 4) Fix to Besa box or direct to surface using suitable 3.5mm or No.6 screws (not supplied).
- 5) Refit head to power supply.
- 6) Attach the surface mounting sleeves (SMSLW (White) or SMSLB (Black) sold separately) to the sensor.



Installation precautions:

- Do not fix the sensor to an unstable or vibrating surface.
- Do not position unit within 1m of any ventilation or forced heating.
- Avoid sunlight directly entering the photocell on the front of the sensor.
- Flush-mounting Bluetooth Low Energy (BLE) devices inside metal enclosures is not recommended.
- BLE networking (“meshing”) between devices: Although BLE range between devices can be up to 30m in direct line of sight, this distance can be affected by other external factors such as building fabric / materials and 3rd party technology. Therefore we would normally recommend BLE devices to be mounted a maximum of 10m to 20m apart (or closer if possible). If further distance between devices is required, please contact us.
- If possible, please check on quality of mesh network between devices before proceeding with project.
- Please contact us for further design considerations if you are planning to mesh more than 50 BLE sensors and/or devices into the same network.
- If you have any queries with regards to above points please contact us for further details.




WARNING: This device should be installed by a qualified electrician in accordance with the latest edition of the UK Wiring regulations.

Functionality and programming


The sensor can be programmed using the Cucumber Controls app via Bluetooth on your smart device. Please use the QR code below to download our app on either iOS or Android to set up the product. Basic functionality using sensor(s) as a non-networked product can be programmed using the 'Quick Start' menu option – please see list of basic parameters below:

Quick Start menu default parameter settings	
Presence/absence detection	Presence
Time out period	10 min
Maintained illuminance (MI target level)	500 Lux approx
Lux switching	Off
Master override	Off
Temporary dim output level	100%
Sensor sensitivity	Optimised
Walk test	On for 24 hours after power up

If further configuration is required, including advanced dimming functionality and/or Bluetooth networking (meshing) between multiple sensors, please use the 'Network setup' option in the app. Further information for using the 'Network setup' can be found on our website.



Download our free Cucumber Controls app to set up the product



This datasheet and/or contents is subject to change without notice. Please always refer to the current release on our website www.cucumberlc.co.uk/resources.

For our Standard Terms & Conditions and Guarantee Policies please refer to our website at www.cucumberlc.co.uk.

Optional Directional Shield

For altering the detection pattern to prevent triggering such as at the end of a racking aisle.



HBSW (White)
or HBSB (Black)
(not supplied).



Simply clip the shield's alignment lugs into the bezel.



Adjustable aperture.

Product Code	Descriptions
PIRDMHBRW	PIR DALI Dimming High Bay Sensor Recessed White RAL9010
PIRDMHBRB	PIR DALI Dimming High Bay Sensor Recessed Black RAL9005
PIRDMHBRWIP	PIR DALI Dimming High Bay Sensor Recessed White RAL9010 IP65
PIRDMHBRBIP	PIR DALI Dimming High Bay Sensor Recessed Black RAL9005 IP65
	Accessories
HBSW	Directional Shield - White
HBSB	Directional Shield - Black
SMSLW	Surface Mount Sleeves - White
SMSLB	Surface Mount Sleeves - Black



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