PHILIPS

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DUS804C-DALI
Ceiling Mount Universal Sensor Installation Manual

The DUS804C-DALI is a low profile recessed flush mount 360º ceiling mount sensors that combines motion detection (PIR) and ambient light level detection (PE) in one device. The sensor is powered directly by the DALI network that is running between the DALI fittings, eliminating the need for additional network field wiring or network power cables. The sensor can only be used when connected to the DALI port of the DDBC120-DALI unit.

In applications such as office buildings, lecture theatres, and homes, the DUS804C-DALI multi function sensor can be utilised to detect different levels of motion and switch on the lights. The sensor can detect movements over a 7.42m x 5.66m area with a mounting height of 2.4m. When an area is unoccupied the sensor can detect this and the lights can be automatically dimmed or switched off to provide energy savings. The unit also incorporates a segmented click-up bezel surrounding the motion sensor element. This enables a portion of the sensing field to be readily masked to prevent nuisance detection from adjacent doorways or corridors. In situations where it is critical to maintain precise lighting control for individual workspaces, such as an office workstation or even air traffic control centers, the DUS804C-DALI facilitates light compensation. The DUS804C-DALI can also be placed in an automatic "Daylight Regulation" mode for additional energy savings.
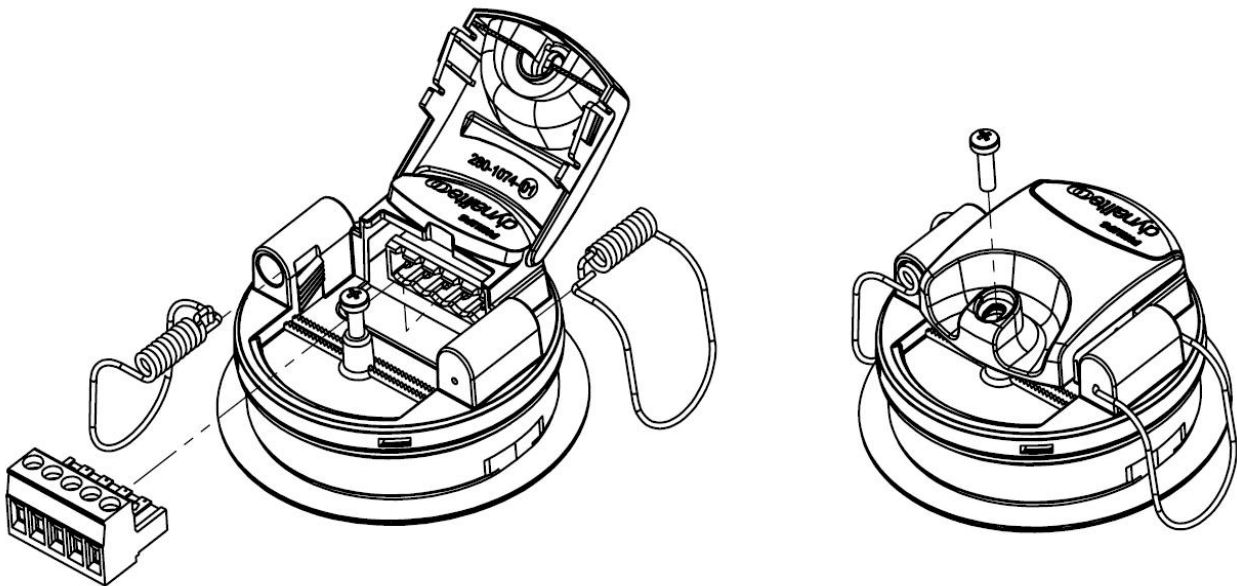
instructions

This unit is for indoor use only. This unit is designed for installation in a 64mm diameter hole where the ceiling void is at least 40mm deep. Select an appropriate indoor mounting location, as detailed in the location guidelines on the following pages. Note that the product has two functions, and the optimum mounting location for each individual function may conflict with each other, and may require use of multiple sensors.

DUS804C-DALI network connections
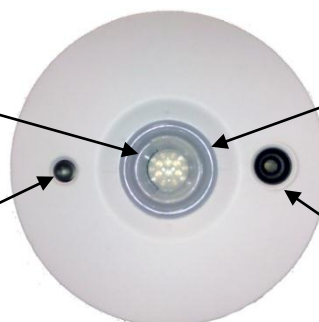
DALI cable connected to sensor.
The sensor has been designed for the DALI network to loop through and then loop out to the next device. The different DALI network devices can be connected in any order along the network. The sensor does not need to be directly connected to the lighting groups that is to be controlled.

- Power down & isolate DALI bus prior to wiring the device
- Fix the sensor to a firm section of ceiling
- Position the sensor so it is between 2.1 and 4.0m from the floor. Optimum height is 2.4m
- Position the sensor so it is at least 1m away from electrical lighting such as neon and fluorescent lights
- Position the sensor as to avoid exposing it to direct sunlight, glare and heating/cooling sources
- Position the sensor where pedestrian traffic is likely to walk across the detection zones (see motion detection coverage diagram)
- Note that for the DUS804C-DALI coverage area is rectangular (see Motion Detector coverage diagram)
- For programming instructions refer to Dynalite Tech Note - Setting up Motion Detector function

Click-up bezel for motion shield
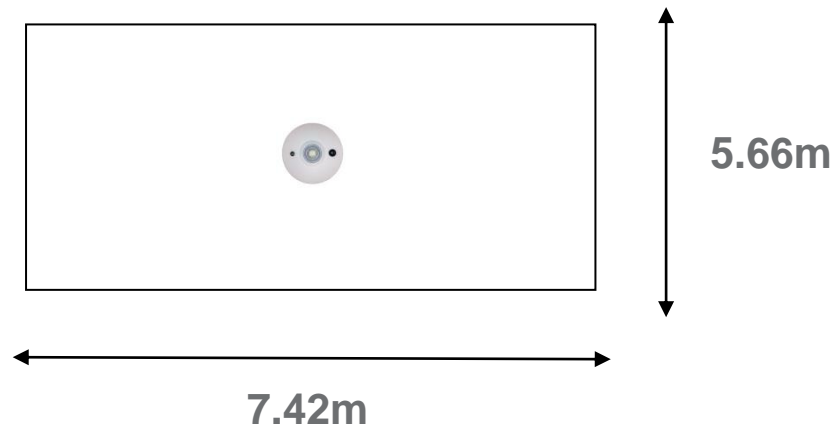
DALI network sign on button

PIR sensor

Light level sensor
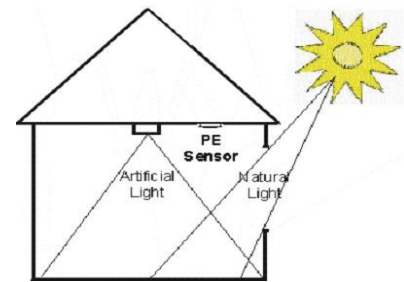
motion detector coverage at 2.4m mounting height

5.66m

7.42m

photo electric cell mounting location

- Position the sensor so it "sees" a combination of artificial light and natural light indirectly.
- Position the sensor so it is not directly exposed to artificial light or sunlight and glare.
- Ensure that the sensor is directed onto working surfaces were correct light level is required.
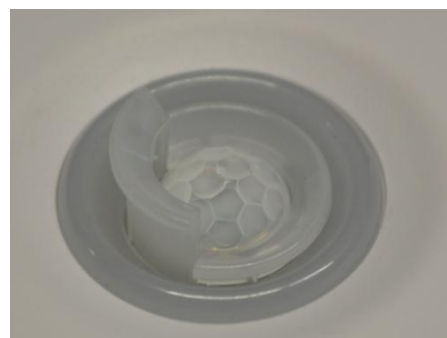- For programming instructions refer to Dynalite Tech Note - Setting up PE functions

masking regions from motion detection

The DUS804C-DALI has a built in pull up mask that can be rotated to remove 120° scanning range from the sensor. This feature can be used in situation when a section of the motion detection zone needs to be blocked out. When mounting the sensors in a single office the mask can be used to block out motion that would be detected in the corridor causing false triggering of the sensor and then turning on the lighting unnecessary. This feature does not affect the light level detection functionality of the sensor.

Lens mask down. Full 360° of scanning available.

Lens mask up removing 120° scanning range from the PIR, leaving only 240°. The mask can be rotated to adjust the area being blocked out.
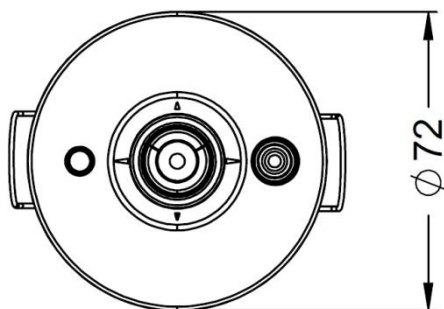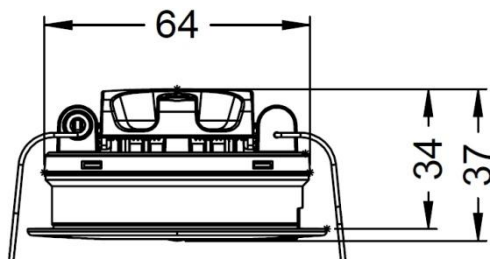
specifications

DUS804C-DALI:
Standard Sensitivity
Maximum detection range: 5.0m
Detection Area: up to 7.4m x 5.6m rectangular
(at a height of 2.4m)
Detection speed: 1.0m/s
Detection object: 700mm x 250mm
Detection zones: 64
LED activation indicator
Sensor: Quad element pyro-electric

PE Cell
Range <5 lux to >5000 lux (reflected)
Automatic "Daylight Harvesting" mode

All dimensions shown in mm.

Controls
Walk test/ LED indicator
Service switch

DALI power Consumption
9mA Max @ (Total of 10 user interfaces on one DALI universe)

Control Bus
DALI bus for use with Philips Dynalite multi master controller only

Terminals
5 way removable terminal strip, 1 x 1.5mm^2 max individual conductor size

Operating Environment
0 ^{o}C to 40°C ambient temperature
0% to 90% RH non condensing

Dimensions
72mm diameter x D 37mm

Weight
Packed weight 0.116kg

DALI power consumption
9mA (Total of 10 user interface on one DALI universe)

WARNING: Do not connect any DALI terminals to mains power. DALI wires are **NOT** SELV and should never be considered touch safe. Functional level of isolation or better is required between DALI wires and mains cabling.

Warranty policy

Dynalite warrant to the original purchaser for a period of twenty four (24) months from the date of shipment ex-factory of the equipment that should the equipment prove defective by reason of improper workmanship or material, Dynalite will repair or replace the same without charge provided the equipment has not been improperly installed, operated, repaired, damaged or abused. The warranty granted herein is limited to repair or replacement only. Dynalite has the right to substitute any warranty item not on the current price/equipment list. As far as the law permits, Dynalite shall not be liable for any loss or damage caused to property or persons arising from any cause whatsoever. This warranty is subject to the return of the equipment to Dynalite, or the Dynalite authorised distributor who supplied the equipment (the 'Supplier'), by prepaid freight within the twenty four (24) months warranty period. Where Dynalite, or the Supplier, agree to a site visit during the warranty period and it is found to be an operational problem, and not subject to warranty in that event, then a field service call out charge will apply. Contact Dynalite or the Supplier for details.

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