DUS804C & DUS804C-SM

Ceiling Mount Universal Sensor Installation Manual

The DUS804C and DUS804C-SM are low profile recessed flush mount 360º ceiling mount sensors that combine motion detection (PIR), infra red remote control reception (IR) and ambient light level detection (PE) in the one device.

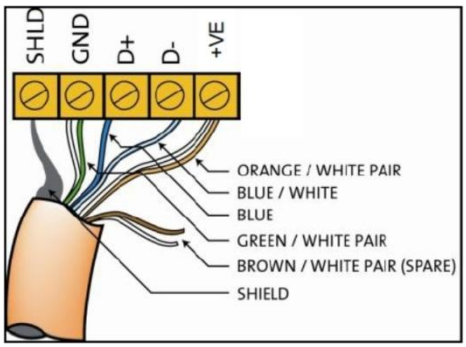
In applications such as office buildings, lecture theatres, and homes, the DUS804C and DUS804C-SM universal sensors can be utilised to detect different levels of motion and switch on the lights. In the case of the standard detection model it can detect movements of items of a size of 700mm x 250mm, whereas the slight motion version can detect movements of items of a size of 200mm x 200mm – it also has more detection zones and a faster detection speed (0.5ms vs 1.0ms) – see specifications on page 4 for more information.

When rooms are unoccupied, 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. The same sensor provides IR control reception to enable full remote control over lights, audio-visual equipment and blinds. A range of hand held infra-red transmitters to complement DUS804 and DUS804C-SM universal sensors are available. 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 facilitates light compensation. Both the DUS804C and DUS804C-SM can also be placed in an automatic “Daylight Harvesting” mode once motion has been detected for additional energy savings.

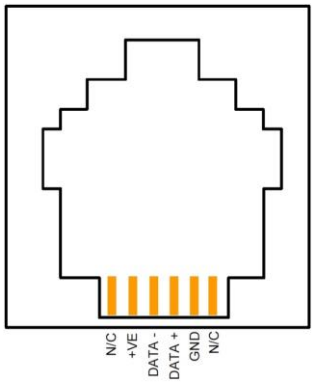
This unit is for indoor use only. This unit is designed for installation in a 64mm diameter hole where the ceiling void is at least 40mm deep. Select an appropriate indoor mounting location, as detailed in the location guidelines on the following pages. Note that the product has two functions, and the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

DUS804C NETWORK CONNECTIONS:

STANDARD CABLE CONNECTION



-RJ option

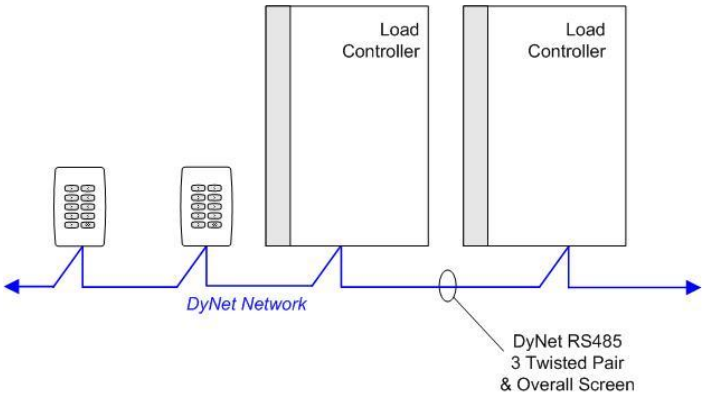


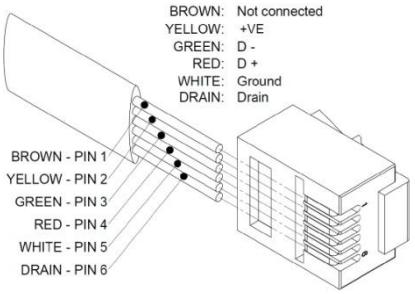
Recommended Cable Colours

Green/White Pair	paralleled for GND
Orange/White Pair	paralleled for +VE
Blue/White Pair	Blue for DATA +
	White for DATA -

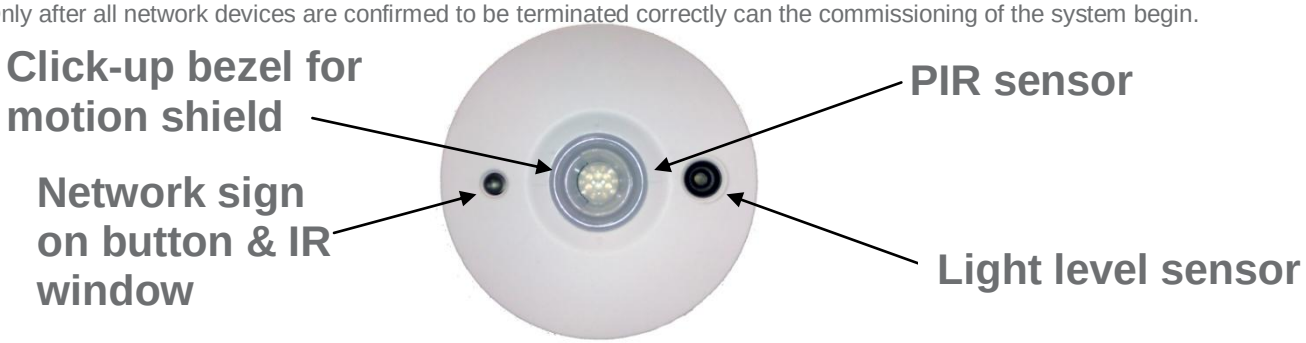
Recommended Cable Types

Belden:	9503
Garland:	MCP3S
Hartland:	HCK603
M&M Cable:	B2003CS
Dynalite:	DYNET-STP-CABLE



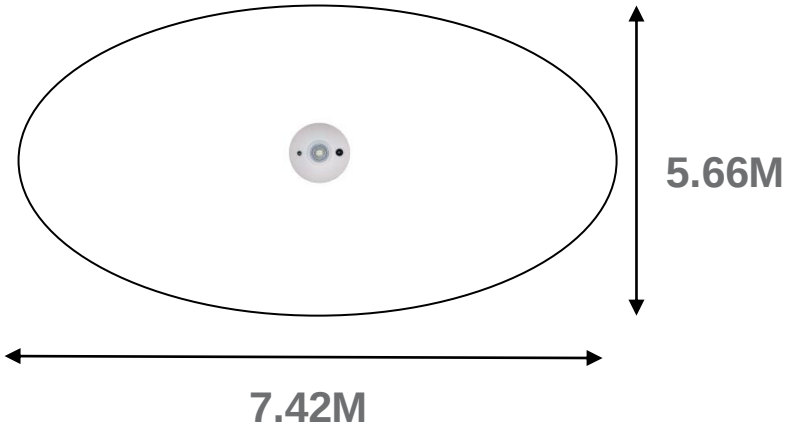


- Fix the sensor to a firm section of ceiling
- Position the sensor so it is between 2.1 and 4.0m from the floor. Optimum height is 2.4m
- Position the sensor so it is at least 1m away from electrical lighting such as neon and fluorescent lights
- Position the sensor as to avoid exposing it to direct sunlight and heating/cooling sources
- Position the sensor where pedestrian traffic is likely to walk across the detection zones
- Note that for the DUS804C coverage area is rectangular (see Motion Detector coverage diagram)
- When terminated correctly and powered from the Dynet network the sensors LED will flash for 5 min every time a push button is pressed. This is to confirm the sensor is terminated correctly
- Only after all network devices are confirmed to be terminated correctly can the commissioning of the system begin.



motion detector coverage at 2.4m mounting height

Lens pattern – DUS804C



Lens pattern – DUS804C-SM

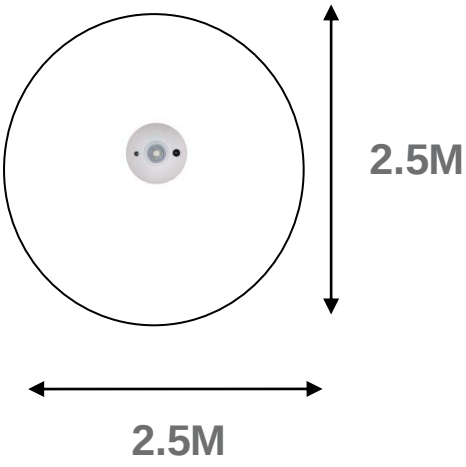
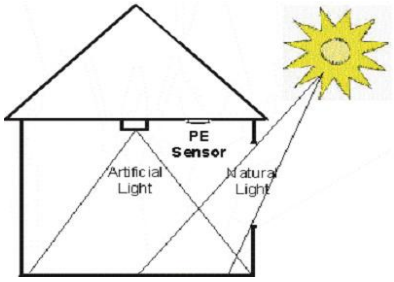


photo electric cell mounting location

• Position the sensor so it “sees” a combination of artificial light and natural Light

• Position the sensor so it is not directly exposed to artificial light or sunlight

• For programming instructions refer to Dynalite Tech Note - Setting up PE functions



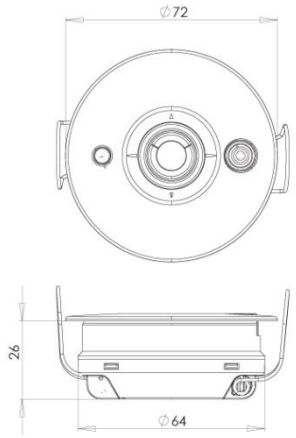
masking regions from motion detection

It is possible to reduce the field of view of the DUS804C-DALI from their normal 360^0 by use of the in-built rotating pull out shield. The shield blocks 120^0 of the field of view, reducing the motion detection field area to 240^0. The shield can also be rotated to block any 120^0 area once the sensor has been installed.

specifications

DUS804C:
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



Infra Red Remote Control Receiver
Range up to 6m
LED activation indicator
Can be used with DTK500 series infra red remotes or other learning IR remotes controls

Controls
Walk test/ LED indicator
Service switch

Control IO
Serial Port – RS485 Dynet 20mA

Terminals
Standard:
5 way removable terminal strip, 1 x 2.5mm2 max conductor size
-RJ option:
2 x RJ12 network sockets

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

Dimensions
72mm diameter x D 26mm

Weight
Packed weight 0.116kg

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.