

PHILIPS

dynalite 

DUS804C-UP

Ceiling Mount Universal Sensor Installation Manual



The DUS804C-UP is a low profile mount 360° ceiling mount sensor that combines motion detection via both Ultrasonic (UP) & passive infrared (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-UP universal sensor can be utilised to detect motion and switch on the lights automatically when motion is detected. When rooms have been unoccupied for a certain amount of time, lights can be automatically dimmed or switched off to provide energy savings.

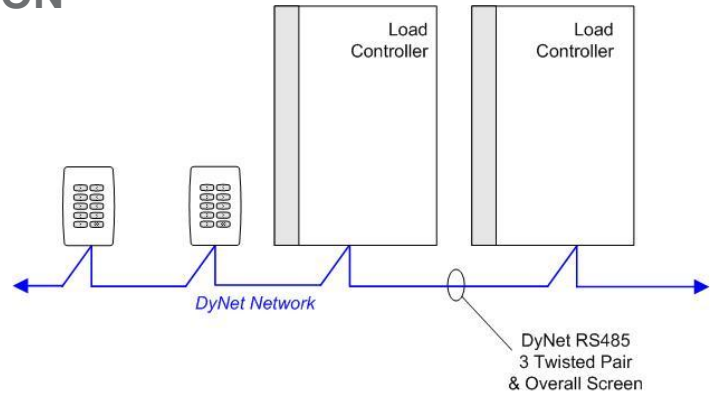
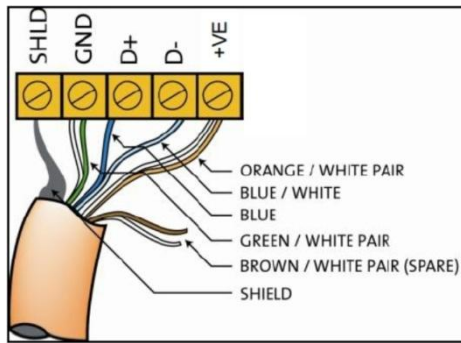
The unit also incorporates a segmented click-up bezel surrounding the motion sensor element. This enables a portion of the sensing field to be readily masked to prevent nuisance detection from adjacent doorways or corridors. The same sensor provides IR control reception to enable full remote control over lights, audio-visual equipment and blinds. A range of hand held infra-red transmitters to complement DUS804 series 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-UP facilitates light compensation. The DUS804C-UP can also perform multiple functions at the same time so that automatically going to “Daylight Harvesting” mode once motion has been detected for additional energy savings.

instructions

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 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



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

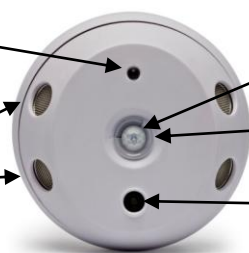
Belden:	9503
Garland:	MCP3S
Hartland:	HCK603
M&M Cable:	B2003CS
Dynalite:	DYNET-STP-CABLE

Motion detection installation steps

- An ultrasonic sensor should never be located within 17.5 meters of another ultrasonic sensor.
- Chose a location where it may face doorways etc which could cause false triggering.
- 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. Sensor should be at least 2.5m from horizontal or vertical air ducts
- Position the sensor where pedestrian traffic is likely to walk across the detection zones
- Fix the sensor to a firm section of ceiling. Sensor can be surface mounted using ring provided.
- Note that for the DUS804C-UP coverage area is rectangular (see Motion Detector coverage diagram)
- When terminated and powered there are three indicating LED's for the following information
 - **Blue** = Low network voltage. The sensor must receive minimum of 12VDC from the Dynet network. If the right network voltage is not present at the sensor terminals when the whole system is powered, then additional network power supplies (DDNP1501) will be required.
 - **Green** = Ultrasonic detection activity
 - **Red** = PIR detection activity
- When terminated correctly and powered from the Dynet network the sensors LED's will flash for 5 min every time a Dynet push button is pressed. This is so the installer can confirm the sensor is terminated correctly with other network devices.
- Only after all network devices are confirmed to be terminated correctly can the commissioning of the system begin.

**Network sign
 on button & IR
 window**

**Ultrasonic
 sensors**



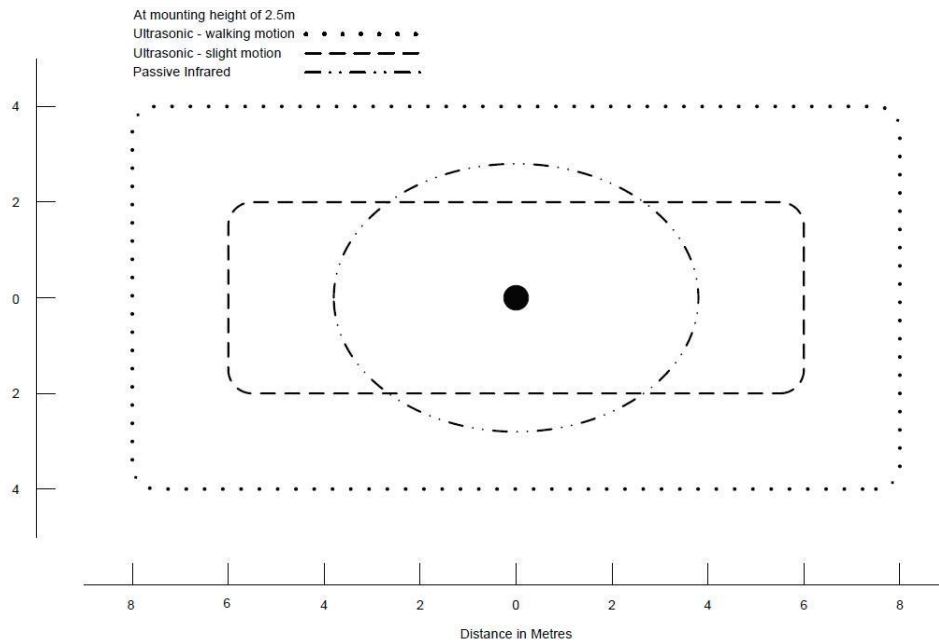
PIR sensor

Indicating LED's

Light level sensor

motion detector coverage at 2.4m mounting height

Lens pattern – DUS804C-UP



Mounting Dimensions

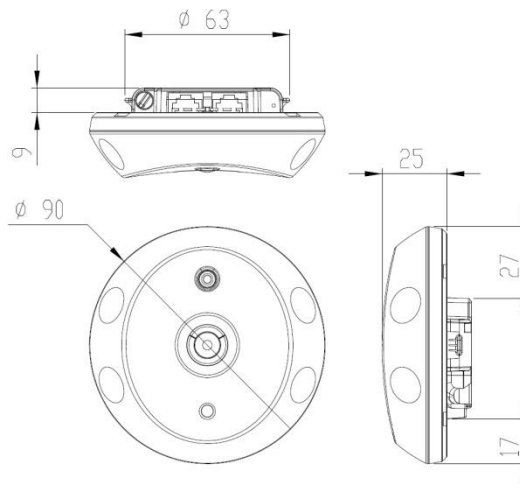
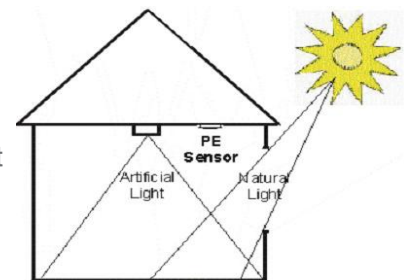


photo electric cell mounting location

- 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



specifications

DUS804C-UP:

PIR:

Maximum detection range: 5.0m
Detection area 7.4m x 5.6m ellipse (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
R.F.I Immunity:>15V/m @ 10 – 1000MHz

Ultrasonic:

Normal motion detection area:
8m x 16m (128m² coverage)
Transducer pairs 2
Operating frequency: 32KHz

PE Cell:

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

Indicating LED:

Blue = Low network voltage / server required
Green = Ultrasonic detection activity
Red = PIR detection activity

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 80mA 12VDC min
The supply of the sensor must never drop below 12VDC.

Terminals

Standard:
5 way removable terminal strip, 1 x 2.5mm² max conductor size

Operating Environment

0 °C to 40°C ambient temperature
0% to 90% RH non condensing

Dimensions

90mm diameter x D 26mm

Weight

Packed weight 0.25kg

Compliance

CE, C-tick

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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