PHILIPS

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DUS704C

Ceiling Mount Universal Sensor Installation Manual

The DUS704 series combine motion detection (PIR), infra red remote control reception (IR) and ambient light level detection (PE) in the one device. In applications such as homes, lecture theatres and office towers, DUS704 universal sensors can be utilised to detect motion and switch on the lights. When rooms are unoccupied, lights can be automatically dimmed or switched off to provide energy savings.

Infra Red remote control reception allows full control of lights, audio-visual equipment and blinds. The Dynalite DTK500 series hand held infra-red transmitters are compatible for use with the DUS704, and for the programming of 3rd party "universal" remote controls.

In situations where it is critical to maintain precise lighting control for individual workspaces, such as a flight control tower or office workstation, the DUS704 facilitates light compensation. The DUS704 can be placed in an automatic "Daylight Harvesting" mode for energy savings.

installation steps

1. * WARNING * Do not touch the Pyro Sensor with your fingers. For indoor use only.
2. Select an appropriate indoor mounting location, as detailed in the location guidelines on the following pages. Note that this product has three functions, and the optimum mounting location for each individual function may conflict with each other, and may require the use of multiple sensors.
3. Remove the cover from the base unit by turning the cover in an anti clockwise direction.
4. Screw the base unit to the ceiling, passing the data cable through the cable entry hole.
5. Terminate the data cable as shown below.
6. Use silicon sealant to seal any cable entry and screw holes to prevent air draughts, dust and insects from entering the enclosure.
7. Replace the cover onto the base unit by turning the cover in a clockwise direction.
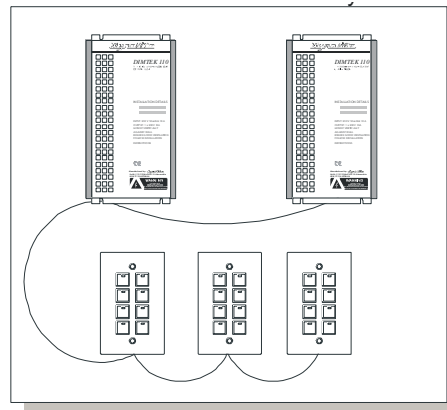
connecting the data cable

serial cable permanent connectors
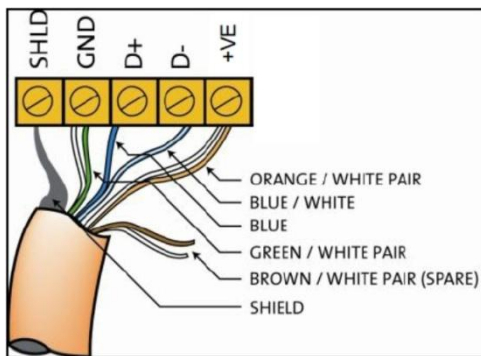
Recommended Cable Colours

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

connect data cable in a "daisy chain"

Recommended Cable Types

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

motion detection mounting location

• Fix the sensor to a firm section of ceiling.
• Position the sensor so it is between 2.1 and 4.0 metres from the floor. Optimum height for the sensor is 2.4 metres.
• Position the sensor so it is at least 1 metre 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.
• Keep data cables away from electrical wiring.
• Position the sensor where pedestrian traffic is more likely to walk across the detection "fingers" rather than parallel with them (see Lens pattern diagram).
• Note that the coverage area is elliptical (see Motion Detector Coverage diagram) with the longest axis being identified by the keyhole on the circuit board.
• For programming instructions refer to Dynalite Tech Note – Setting up Motion Detection functions.

lens pattern & coverage
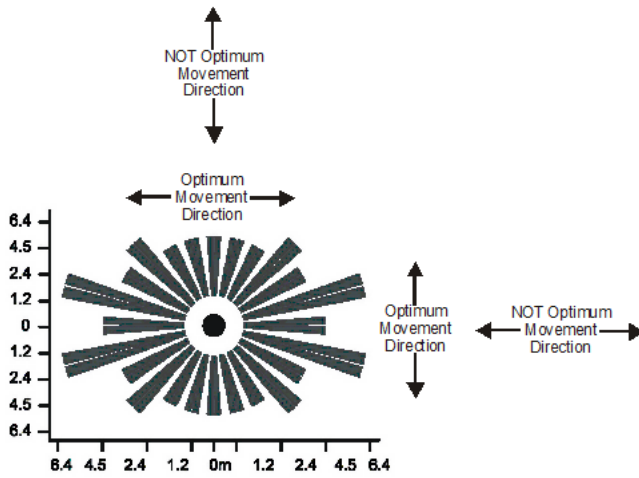
Lens pattern
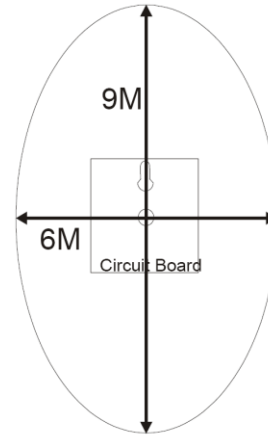
Motion detector coverage at 2.4 m mounting height

infrared receiver mounting location

• Position the sensor so it is within 6 meters of the intended operating positions of the infrared transmitter

• Position the sensor so it is not directly exposed to light, especially incandescent and sunlight, both of which can substantially reduce IR range

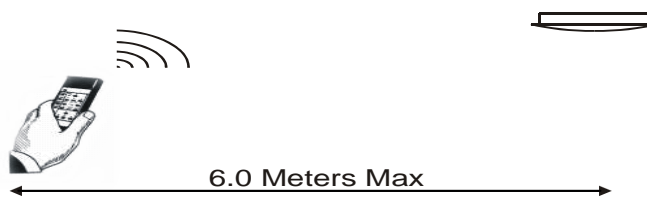• Keep data cables away from electrical wiring

6.0 Meters Max

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

• Keep data cables away from electrical wiring

• For programming instructions refer to Dynalite Tech Note - Setting up PE functions
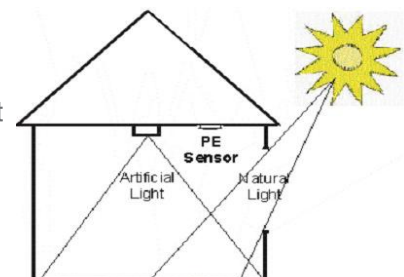
masking regions from motion detection

It is possible to reduce the field of view of the DUS804C from its 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 to 240^0. The shield can also be rotated to block any 120^0 area once the sensor has been installed.

specifications

Motion Detector
360° Ceiling Mount PIR Detector
Range 9m x 6m ellipse (at a height
of 2.4m)
Mounting height: 2.1m to 4.0m, 2.4m optimum
LED activation indicator
Adjustable Pulse Count & Sensitivity
Detection zones: 34 dual element zones
Sensor: Dual element pyro-electric
R.F.I. Immunity: >15V/m @ 10- 1000MHz

PE Cell
Dynamic range < 5 lux to > 5000 lux
Automatic "Daylight Harvesting" mode
Can be used for light measurement

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

Installation Position
Ceiling mount, indoor use only

Dimensions
102mm diameter x 30mm

Control IO
Serial Port – RS485 DyNet

DyNet DC Load
20mA

Setup
All functions remotely programmable

Weight
0.1Kg Packed

DUS704C Instruction Manual Rev H.doc. Specifications and design subject to change without notice.
Philips Dynalite manufactured by WMGD Pty Ltd (ABN 33 097 246 921). Unit 6, 691 Gardeners Road Mascot NSW 2020 Australia Tel: +61 2 8338 9899 Fax: +61 2 8338 9333
E-Mail: **dynalite.info@philips.com**   Web: **Philips.com/dynalite**

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