

**PHILIPS**

dynalite 

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# DUS704W

## Wall 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, DUS704W 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. The same sensor provides IR remote control reception to give full control over lights, audio-visual equipment and blinds. A range of hand held infra-red transmitters to complement DUS704W series universal sensors.

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 DUS704W can be placed in an automatic “Daylight Harvesting” mode for energy savings.

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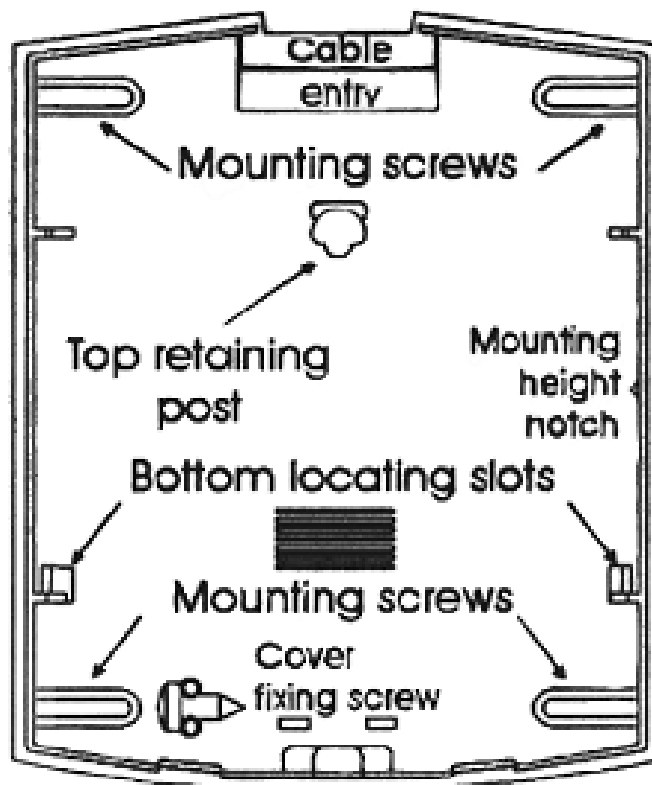
## installation steps

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1. \* WARNING \* Do not touch the Pyro Sensor with your fingers. For indoor use only and not to be used as a sensor for integration to a security system.
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 un-clipping the bottom of the cover and hinging it upwards.
4. Screw the base unit to the wall, ensuring the unit is mounted vertically. Pass the data cable through the cable entry hole.
5. Ensure that the lens is properly mounted
6. Terminate the data cable as shown below.
7. Use silicon sealant to seal any cable entry and screw holes to prevent air draughts, dust and insects from entering the enclosure.
8. Replace the cover onto the base unit by locating it in the top clip position then hinging it downwards. Remove the screw cap at the bottom of the housing, insert and loosely tighten the supplied screw, then replace the screw cap. Ensure that the housing is proper enclosed and sealed

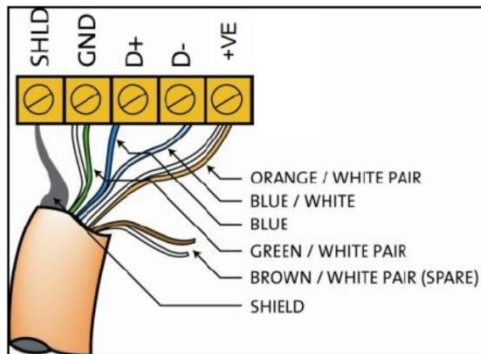
## internal view

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# connecting data cable

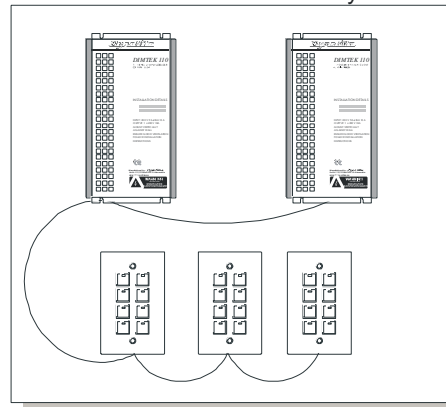
## serial cable permanent connectors



### Recommended Cable Colours

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

## connect data cable in a “daisy chain”



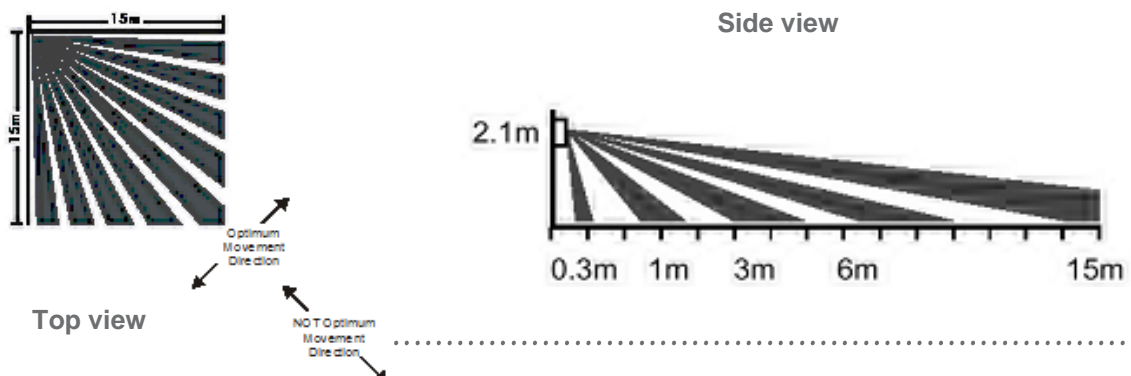
### Recommended Cable Types

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 wall
- Position the sensor so it is between 1.1 and 3.1 metres from the floor. Optimum height for the sensor is 2.1 metres.
- Slide the circuit board up or down so the marker on the housing matches up with the installed height on the scale provided on the right hand side of the circuit board.
- Position the sensor so it is at least 2 metres 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.
- Select a location where persons are more likely to walk across the detection “fingers” rather than into them (see diagram below).
- For programming instructions refer to Dynalite Tech Note – Setting up Motion Detection functions.

# motion detection lens pattern



## optional motion detector lens

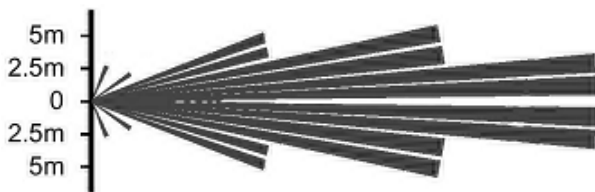
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In addition to the supplied Wide Angle lens, An option for a long range lens is available for corridor applications:

- DUS704W Long Range – Useful for monitoring a long thin space such as a corridor.

Contact your local supplier for more details

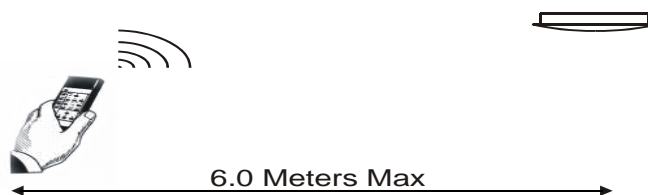
### Optional Lens – DUS704W Long Range



## infrared receiver mounting location

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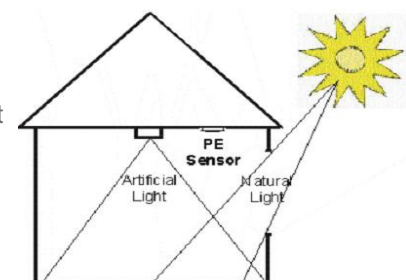
- Position the sensor so it is within 6 meters of the intended operating positions of the infrared transmitter
- Position the sensor so it is not directly exposed to light, especially incandescent and sunlight, both of which can substantially reduce IR range
- Keep data cables away from electrical wiring



## photo electric cell mounting location

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- 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



## **Motion Detector**

Wide Angle Wall Mount PIR Detector  
Range 12m x 90O (standard lens)  
Mounting height: 1.1m to 3.1m  
LED activation indicator  
Adjustable Pulse Count & Sensitivity  
Detection zones: 20 dual element zones  
Sensor: Dual element pyro-electric  
R.F.I. Immunity: >15V/m @ 10- 1000MHz  
Optional lens:  
\* 30m x 30O Long Range

## **PE Cell**

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

## **Installation Position**

Wall mount, indoor use only

## **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

## **Dimensions**

H 85mm x W 66mm x D 45mm

## **Control IO**

Serial Port – RS485 DyNet

## **DyNet DC Load**

20mA

## **Setup**

All functions remotely  
programmable

## **Weight**

0.1Kg Packed

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