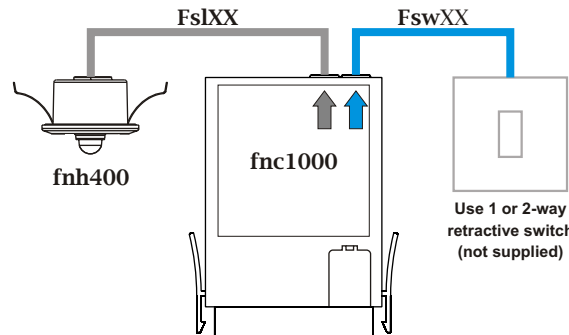
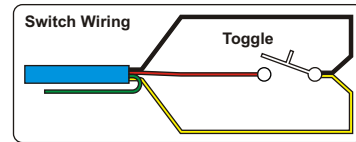


## Switching Options - Absence Sensing in conjunction with a 1-way Retractive Switch



**Note:** Multiple switches can be connected in parallel. 'Y' connectors are available to enable two switch drop leads to be connected into one point. (Part No. fsy/A - adaptor).



### Operation:

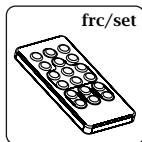
**Switch control:** Pulse - toggles the lights ON or OFF.

**Absence detection:** When occupancy is no longer detected, lights will switch OFF after a pre-selected *time-out* period (default 20 minutes).

**Daylight dependency:** During periods of occupancy (or whilst occupancy is timing out) the lights may switch OFF if the ambient light detected under the sensor head sufficiently exceeds the *set-level*. Conversely the lights may switch back on again should the ambient light fall below the *set-level*.

**Note:** By default, absence sensors do not switch lights on due to occupancy, however with an **frc/set** setup remote control it is possible to reconfigure the unit to initiate the lights ON with first occupancy - This is not true occupancy detection as it can only occur where occupancy has timed out e.g. first thing in the morning.

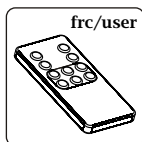
## Setting Up



### Setup Remote Control - frc/set

The sensor can only be setup by using an **frc/set** remote control - ordered separately. Full instructions for setting up the sensor are supplied with the **frc/set** remote control.

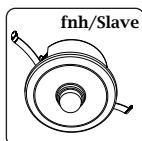
## Optional Extras



### User Remote Control - frc/user

The **frc/user** remote control is a convenient method for the user to control the lighting remotely. Lights can be temporarily overridden ON or OFF and in cases where the lighting control is dimmable, dimmed UP or DOWN. In addition, up to six preset light levels can be stored and recalled.

**Note:** Unlike the **frc/set** remote control the **frc/user** remote control can not be used to setup or change occupancy time-out settings.



### Increasing Occupancy Coverage - fnh/slave

Occupancy coverage can be increased by adding up to a maximum of five slave sensor heads (**fnh/slave**) to your existing sensor head. The **fnh/slave** comes complete with a 'Y' adaptor to facilitate connection.

A connecting lead may also be required, part number **fslXX** (XX = length /5m).

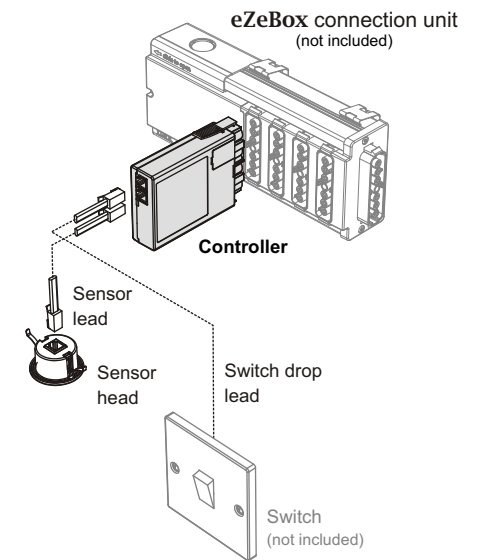
## Fns1400/U Universal Sensor Kit

D

The **fns1400/U** universal sensor kit plugs directly into any of the **flex7** range of connection units or a 7-pole single socket outlet to provide control of the connected mains rated luminaires. Control is ON/OFF and is dependent on a combination of occupancy & daylight detection with an initiating / overriding wall switch (operating at ELV).

**Note:** The **fns1400/U** universal sensor can be setup as occupancy or absence sensing.

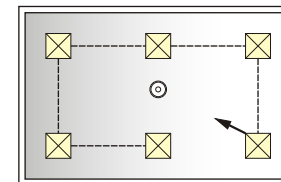
The kit comprises a controller, a sensor head, a sensor link lead and a switch drop lead.



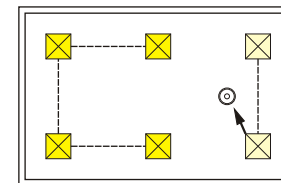
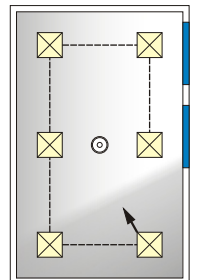
**This product should only be installed by a qualified electrician.**

### Considerations before installation

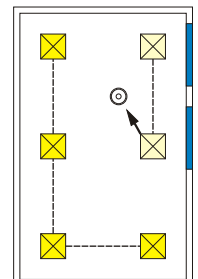
The **fnh400** sensor head detects both occupancy and light level. However, conditions for optimum light sensing should always have priority over those for occupancy coverage. To achieve effective daylight dependent control, select only an area where the daylight contribution, though changeable, is significant and remains consistent across the area.



As lamp output across the circuit must be common, it is not possible to provide the 'optimal' ON/OFF state for all areas when some receive more daylight than others.

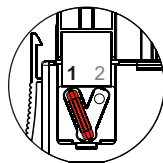
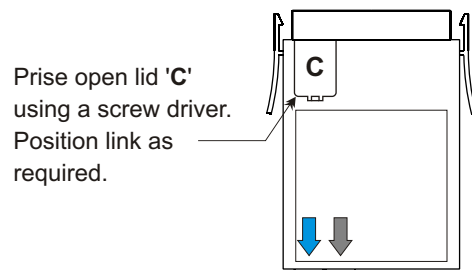


Try to split into zones where the changes in daylight are reasonably consistent. Darker areas may then be controlled via alternative means such as on/off without consideration to daylight. You may even consider sufficient natural light reaches these areas to justify a second daylight sensing circuit.

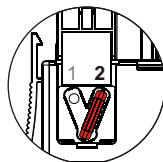


**Note:** Always fit the sensor head as close as possible to the centre of the group of lights under its control. Do not site where the head could receive direct sunlight

## Sensor head and occupancy detection performance



**Link in position 1**  
Lights can remain ON during an emergency test. Wire connection unit as shown in option A. See below for details.



**Link in position 2**  
Lights will switch OFF during an emergency test. Wire connection unit as shown in option A or B. See below for details.

### Rating

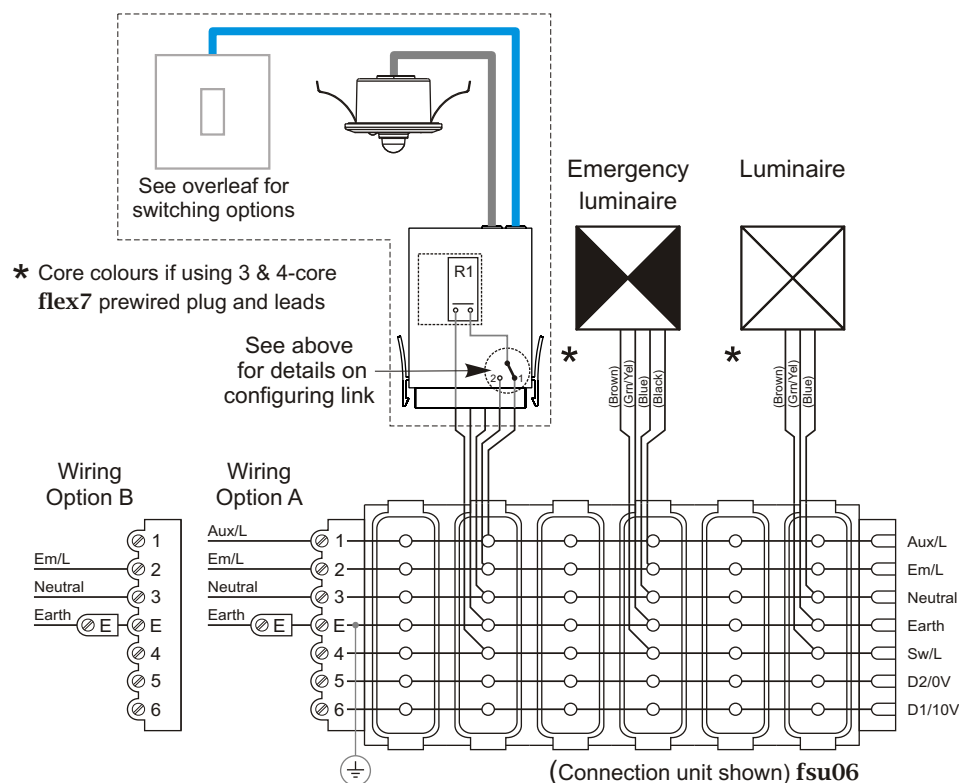
Supply Voltage : 230V~ 50Hz

### Load

Fluorescent & Incandescent Lighting : 6A

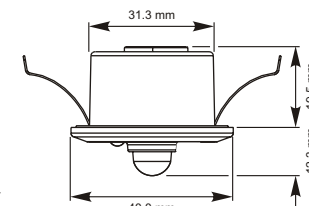
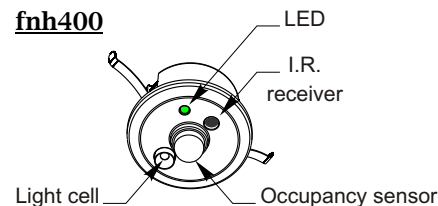
Compact Fluorescent Lighting : 3A

## Wiring diagram



## Sensor head and occupancy detection performance

### fnh400

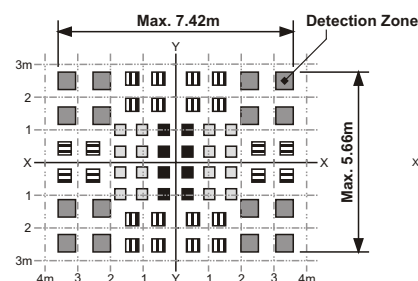


The sensor head fits into a 32mm diameter hole, with clips which can grip ceiling panels down to 1.5mm thick.

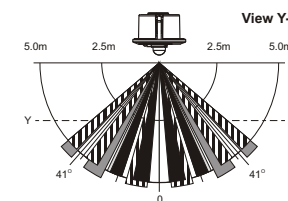
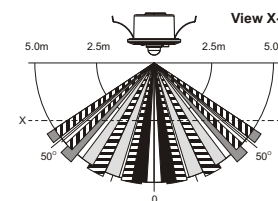
The sensor head has a rectangular occupancy detection range broadly 7.4m x 5.6m at a ceiling height of 2.5m (Longest length of detection aligning with the spring clips). As the ceiling height increases so will the overall detection area but sensitivity to small movements will decrease.

**Note:** Make sure that the sensor is not adjacent to circulating air, heaters or lamps.

### Detection Zone

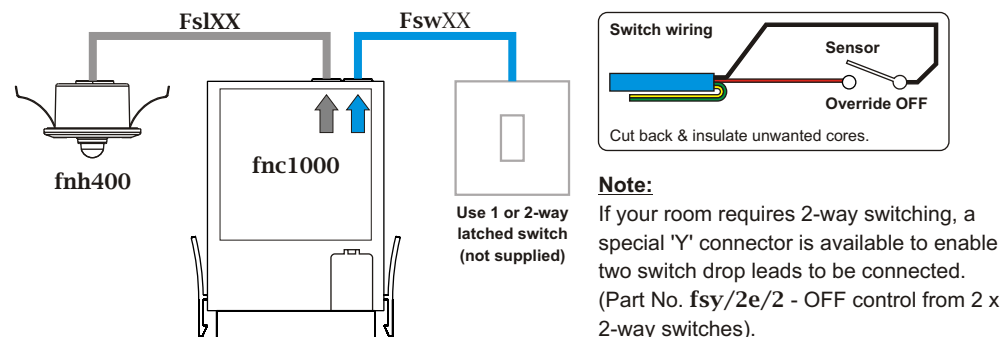


**Note:** For safe operation it is advisable to extend occupancy coverage to cover the wall switch. In this way, operating the switch to 'SENSOR' position ensures the lights turn ON.



The X-Y cross-sectional diagram shows the detection area. The differences in the detection zone patterns indicate the projections of the 16 lenses with a single focal point. Movement of an object with higher than background temperature, between the detection zones, will be detected.

## Switching Options - Occupancy Sensing in conjunction with a 1-way Latched Switch



### Operation:

**Override switch operation:** Override OFF takes priority over occupancy sensing.

**Occupancy detection:** Provided the wall switch is in the 'Sensor' position & Not withstanding 'daylight dependency' (see below) the lights will switch ON whenever there is occupancy detected by the sensor head. When occupancy is no longer detected, lights will switch OFF after a pre-selected time-out period.

**Daylight dependency:** During periods of occupancy the lights may switch OFF if the ambient light detected under the sensor head exceeds the set level.