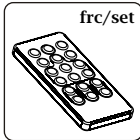


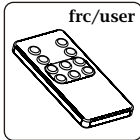
Setting Up



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.

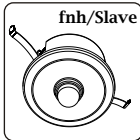
Optional Extras/Spares



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.

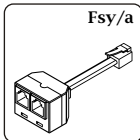
Note: Unlike the **frc/set** remote control the **frc/user** remote control can not be used to setup or change occupancy time-out settings.



Increasing Occupancy Coverage - fnh/slave

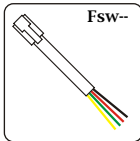
Occupancy coverage can be increased by adding up to a maximum of five slave sensor heads (**fnh/slave**) to your existing sensor head. The **fnh/slave** comes complete with a 'Y' adaptor to facilitate connection.

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



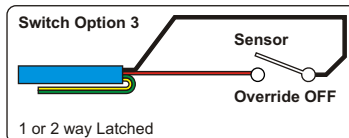
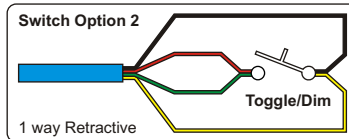
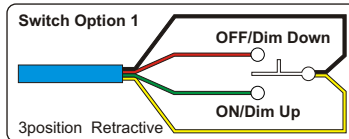
Fsy/a

If your room requires additional sensor heads (**fnh/slave**) or additional switch drops you will require an **fsy/a** to link your additional cables into.



PELV - Switch Drop

To add switches a PELV switch drop lead will be required to connect the additional switches to the control unit.



fns3400D(X, A) Occupancy Sensor Kit

3400

The **fns3400D(X, A)** sensor kit plugs directly into any of the **eZeBox** range of connection units or a 7-pole single socket outlet to provide control of the connected mains rated luminaires. Control is ON/OFF/DIM, up/down dependent on occupancy and or light level detection.

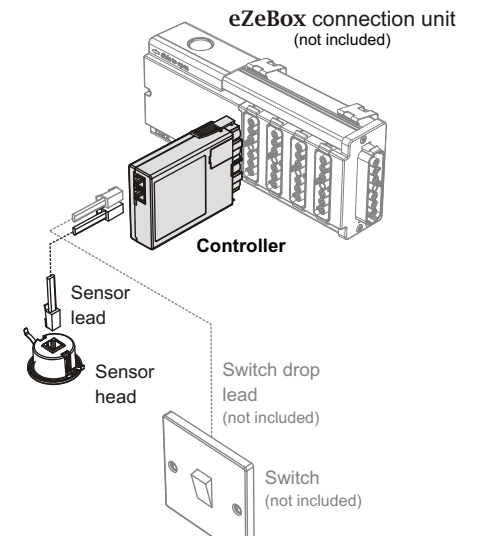
The kit comprises a controller, sensor head, and sensor lead.

Three products are available:

- fns3400D/U** for DSI digital dimmable ballasts.
- fns3400X/U** for DALI digital dimmable ballasts.
- fns3400A/U** for Analogue ballasts 0-10V.

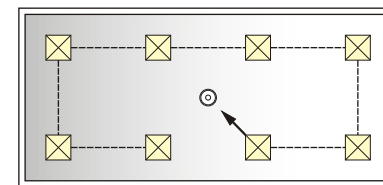
Please ensure the correct product is selected for the type of ballast being used as incorrect connection may damage the controller.

This product should only be installed by a qualified electrician.

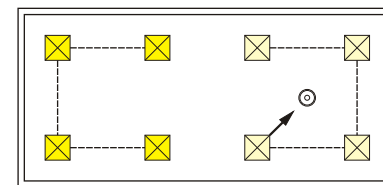
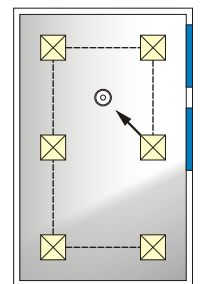


Light level detection performance

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 linking control, select only an area where the daylight contribution, though changeable, is significant and remains consistent across the area.

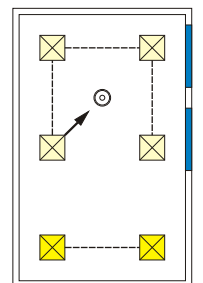


As lamp output across the circuit must be common, it is not possible to provide the 'optimal' luminosity for all areas when some receive more daylight than others.



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 light level. You may even

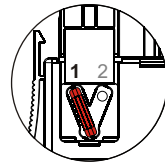
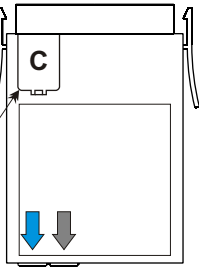
consider sufficient natural light reaches these areas to justify a second light level sensing circuit.



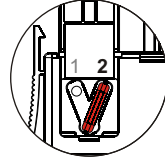
Note: Always fit the sensor head as close as possible to the centre of the group of lights under its control. Do not site where the sensor head could receive direct sunlight.

Configuring the controller and wiring the connection unit

Prise open lid 'C' using a screw driver. Position link as required.



Link in position 1
Lights can remain ON during an emergency test. Wire connection unit as shown below.



Link in position 2
Lights will switch OFF during an emergency test. Wire connection unit as shown below.

Rating

Supply Voltage : 230V~ 50Hz

Load

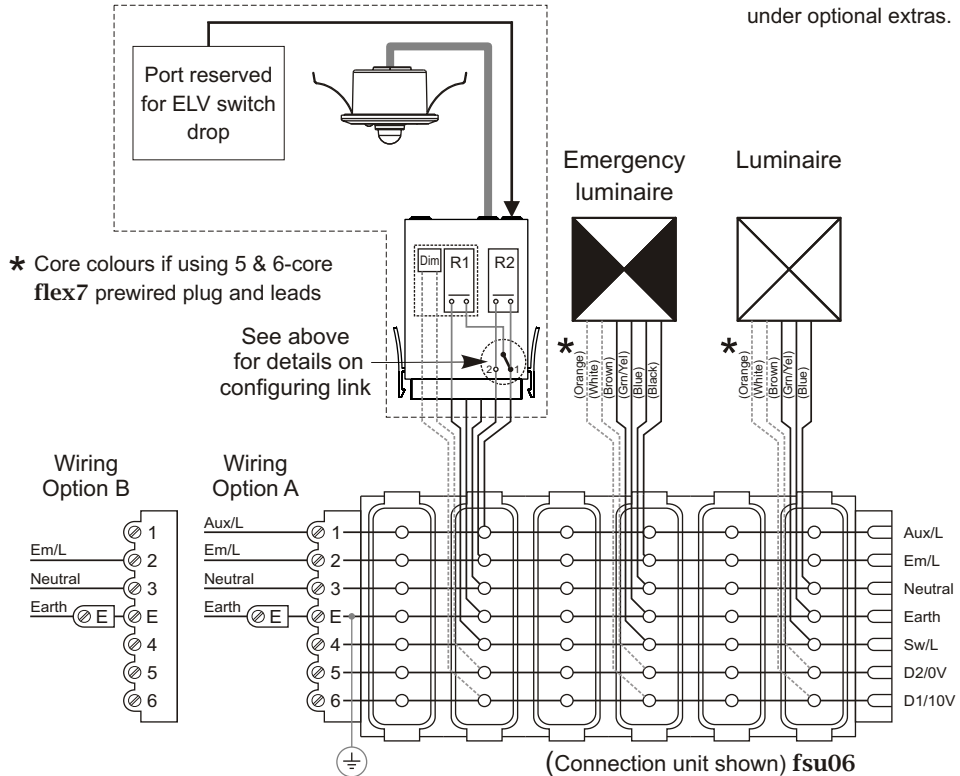
Flourescent & Incandescent Lighting : 6A
Compact Flourescent Lighting : 3A

Maximum number of Ballast

fnc3000D/U (DSI Digital control) : 25
fnc3000D/U (DALI Digital control) : 25
fnc3000D/U (Analogue 0-10V control) : 25

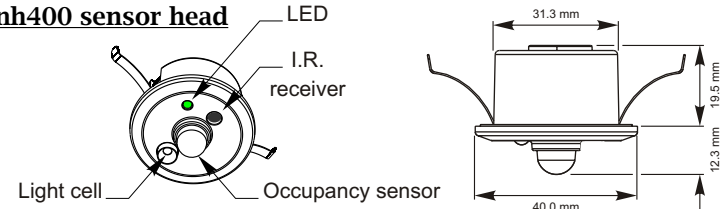
Connection unit wiring

** See PELV switch drop under optional extras.



Sensor head and occupancy detection performance

Fnh400 sensor head

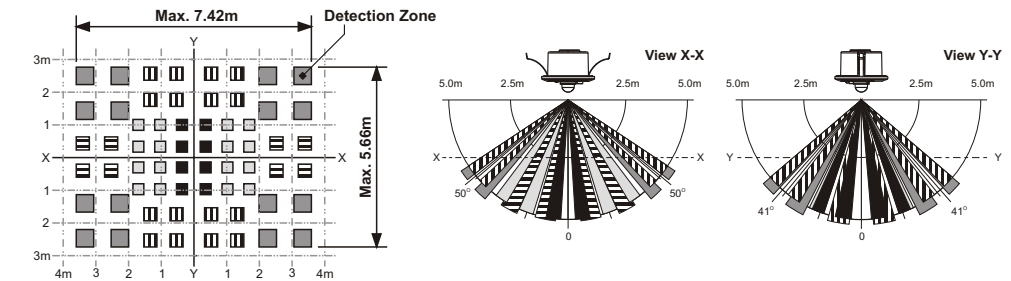


The sensor head fits into a 32mm diameter hole, with clips which can grip ceiling panels down to 1.5mm thick.

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.

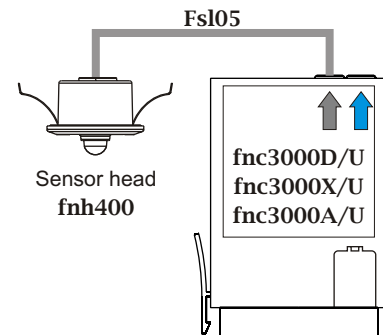
Note: Make sure that the sensor is not adjacent to circulating air, heaters or lamps.

Detection Zone



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.

Occupancy Sensing



Operation

Occupancy detection: 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 (default 20 minutes).

Daylight linking: While lights are ON due to occupancy their light output will adjust to compensate for any changes in ambient light in order to maintain a constant light level under the sensor head - the *target level*.

Note: Alternative operational options not necessarily shown above are available using the **frc/set** setup remote control.

Full instructions for setting up the sensor are supplied with the sensor head and the **frc/set** remote control - both ordered separately.