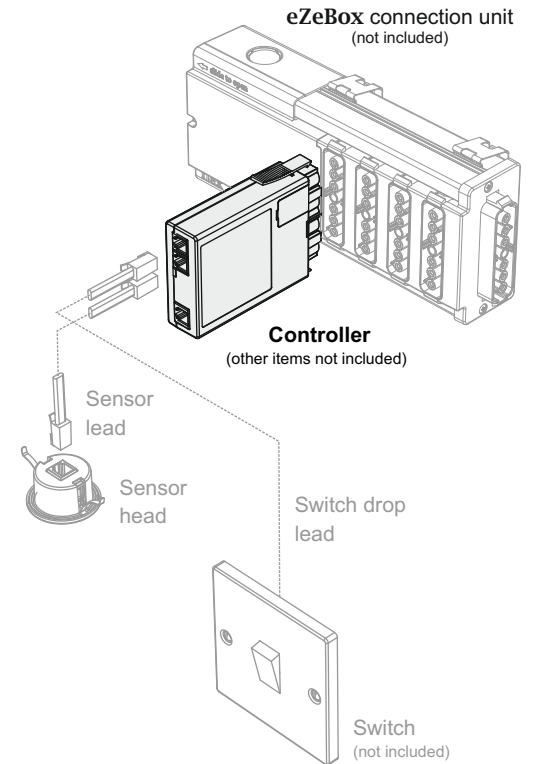The **fnc4000(D,X or A)/AB**, are all control devices which can plug directly into any of the **eZeBox** range of connection units or a 7-pole single socket outlet. Working with at least a switch or together with a plug-in sensor head, the device will control the connected mains rated luminaires ON, OFF and DIM up or down. The exact operation will largely depend on which of the input devices are connected. Note that any connected switch or sensor head will be operating at ELV.

Three products are available:
fnc4000D/AB : DSI digital dimmable ballasts.
fnc4000X/AB : DALI digital dimmable ballasts.
fnc4000A/AB : 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.
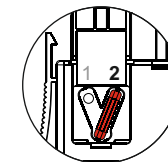
eZeBox connection unit
(not included)

Controller
(other items not included)

Sensor lead

Sensor head

Switch drop lead

Switch
(not included)

Configuring the fnc4000(D,X or A)/AB controller

Prise open lid '**C**' using a screw driver. Position link as required.
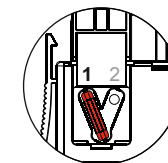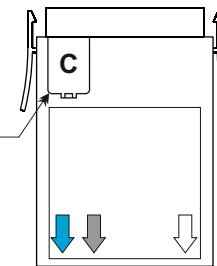
Link in position 1
Lights can remain ON during an emergency test. Wire connection unit as shown on the back page.

Link in position 2
Lights will switch OFF during an emergency test. Wire connection unit as shown on the back page.
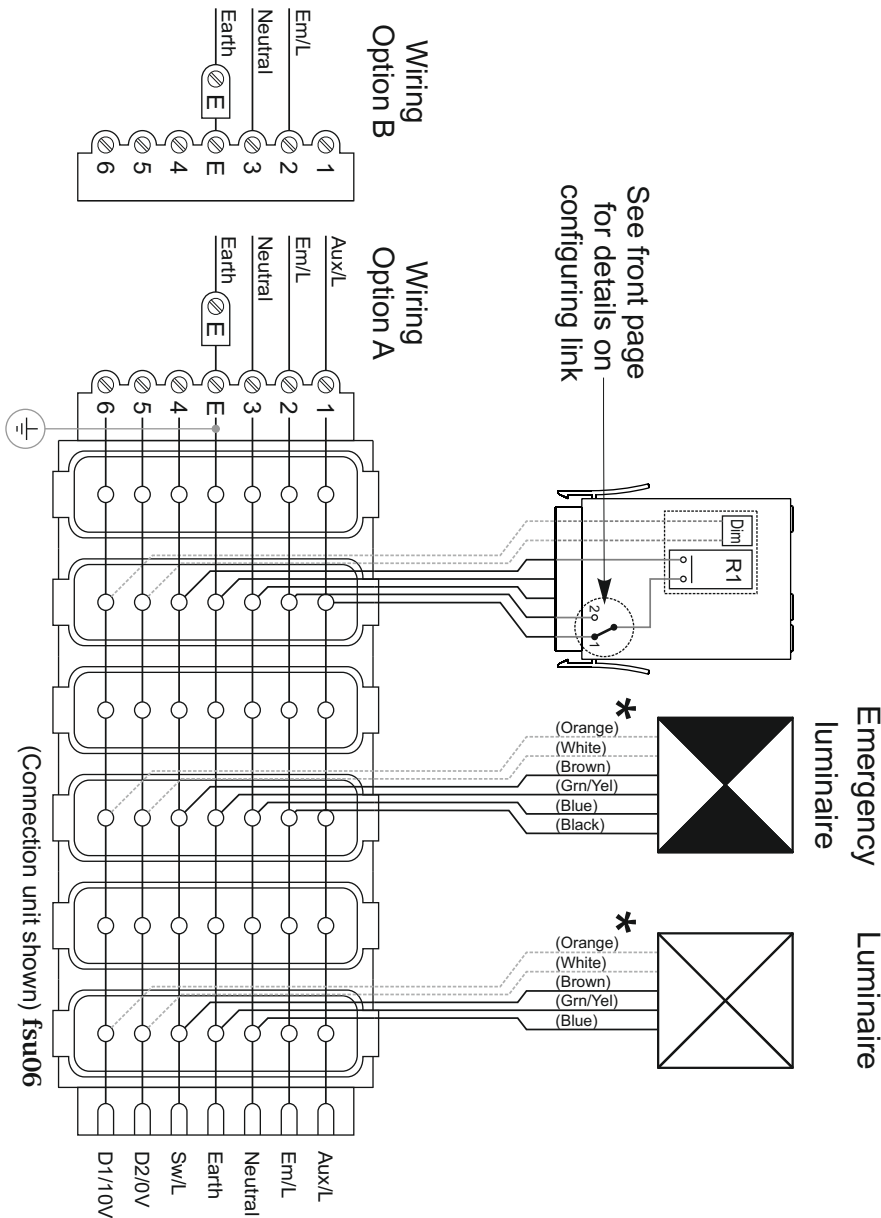
Rating
Supply Voltage : 230V~ 50Hz

Load

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

Maximum number of Ballast

fnc4000D/AB (DSI Digital control)	: 25
fnc4000X/AB (DALI Digital control)	: 25
Fnc4000A/AB (Analogue 0-10V control)	: 25

Circuit diagram for **fnc4000(D,X or A)/AB** Controller

Wiring Option B

Earth / Neutral / Em/L

E					
6	5	4 E	3	2	1

Wiring Option A

Earth / Neutral / Em/L / Aux/L

See front page for details on configuring link

(Connection unit shown) **fsu06**

Emergency luminaire

(Orange)
(White)
(Brown)
(Grn/Yel)
(Blue)
(Black)

Luminaire

(Orange)
(White)
(Brown)
(Grn/Yel)
(Blue)

D1/10V D2/0V Sw/L Earth Neutral Em/L Aux/L

Using a $\mathbf{fnc4000(D,X\ or\ A)/AB}$ controller with a switch (dimming)

* Refer to leaflet *Networking Sensors,* leaflet number 17/245.
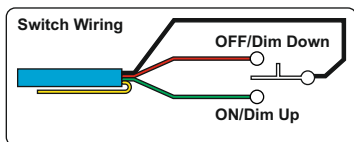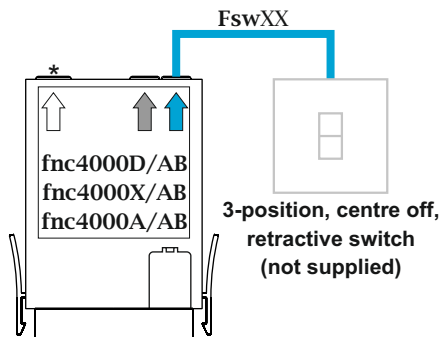
$\mathbf{Fsw}XX$

fnc4000D/AB
fnc4000X/AB
fnc4000A/AB

**3-position, centre off,
retractive switch
(not supplied)**

Switch Wiring

OFF/Dim Down

ON/Dim Up

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. $\mathbf{fsy/A}$ - adaptor)

Operation:
Switch control:
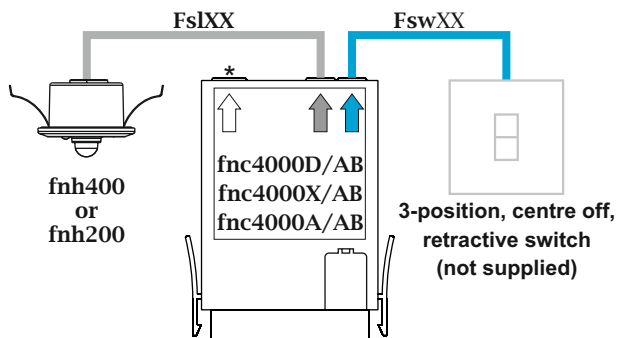ON pulse   - turns the lights ON (to the last dimmed level).
OFF pulse   - turns the lights OFF.
A long ON pulse   - brightens lights (eventually to maximum).
A long OFF pulse - dims lights (eventually to minimum, but should the pulse exceed 15 secs the lights will switch OFF completely).
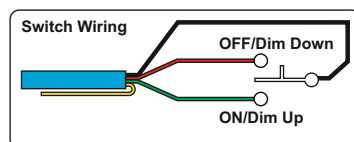
Using $\mathbf{fnc4000(D,X\ or\ A)/AB}$ controller with a sensor head and switches

* Refer to leaflet *Networking Sensors,* leaflet number 17/245.

$\mathbf{Fsl}XX$ $\mathbf{Fsw}XX$

**fnh400
or
fnh200**

fnc4000D/AB
fnc4000X/AB
fnc4000A/AB

**3-position, centre off,
retractive switch
(not supplied)**

Note:
For best operation it is advisable that occupancy coverage extends to cover the wall switch.

Switch Wiring

OFF/Dim Down

ON/Dim Up

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. $\mathbf{fsy/A}$ - adaptor)

Note: Alternative operational options not necessarily shown above are available using the $\mathbf{frc/set}$ setup remote control.
Full instructions for setting up the sensor are supplied with the sensor head and the $\mathbf{frc/set}$ remote control - both ordered separately.

Operation:
If the sensor head is of type $\mathbf{fnh200}$
ON pulse   - turns the lights ON.
OFF pulse   - turns the lights OFF.
A long ON pulse   - brightens lights (eventually to maximum).
A long OFF pulse - dims lights (eventually to minimum, but
should the pulse exceed 15 secs the lights will switch OFF completely).
Absence detection:
When occupancy is no longer detected, lights will switch OFF after a pre-selected *time-out* period (default 20 minutes).

If the sensor head is of type $\mathbf{fnh400}$
Switch control:
As above except lights always switch ON with *daylight linking* activated. If the lights are subsequently dimmed up or down by the switch, *daylight linking* will be deactivated in preference to the DIM state attained by the switch.
Absence detection: As above (type $\mathbf{fnh200}$)
Daylight linking: Provided *daylight linking* is activated (see switch control above) the 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*.