COMMISSIONING

All flex7 microwave sensors are designed to work 'out of the box' and as such

are manufactured with the following common default settings:

- Time-out - 20 minutes (luminaires switch OFF 20 minutes after last detection)
- Sensitivity level – 2 (sensitivity may be increased by 1 increment or reducedby 5 increments to reduce nuisance triggering)
- Target light level – maximum (luminaires will not turn OFF or DIM as a result of ambient light conditions)

A flex7 remote handset (FRC/SET or FZL/RC) is required to change these default settings.

Refer to FRC/SET or FZL/RC instructions for details on how to:

- Change time-out setting
- Change sensitivity level
- Set target light level to achieve daylight Linking

All other settings are control module / ZoneLite specific - refer to

appropriate instruction sheet for details.

Notes: Microwave sensors can detect moving objects through partition wall, windows etc. resulting in nuisance or unexpected triggering.

Expected detection range can be affected by the velocity of the target object and the type of back box used i.e. metal (good) or plastic (slightly reduced).

TECHNICAL

- Rating   Microwave sensor - 12v dc

  Plug-in control module / ZoneLite - 230v 50hz 6A

  Inrush - 120A, 20ms (max)
- IP Rating: IP2X
- Compliance: LVD 2014/35/EU, EMC 2014/53/EU

CE

FLEX7 12V MICROWAVE INSTRUCTIONS

These instructions cover the following models:

- FMH400 - Ceiling Mounted 12v Microwave Sensor (use with flex7 control module)
- FMH400/W - Wall Mounted 12v Microwave Sensor (use with flex7 control module)
- FZH/MW - Ceiling Mounted 12v Microwave Senor (use with flex7 ZoneLite LCM)
- FZH/MW/W - Wall Mounted 12v Microwave Sensor (use with flex7 ZoneLite LCM)

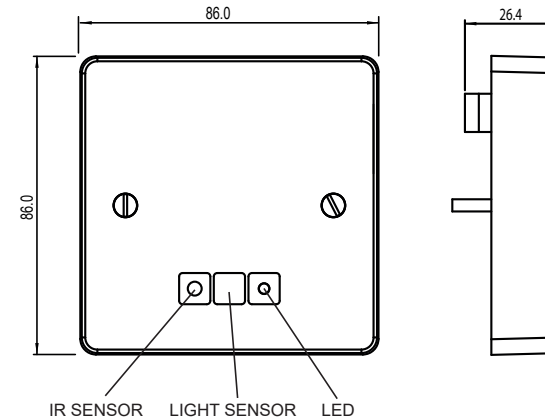86.0   86.0   26.4

IR SENSOR   LIGHT SENSOR   LED

FIGURE 01

These microwave sensors must only be used with plug-in control modules or ZoneLite LCMs manufactured by flex7 Limited. Contact flex7 Limited if in doubt.

flex7 microwave sensors are designed to switch luminaires ON when movement is detected and OFF when the area is vacated.

All variants have an integral infrared sensor, a light sensor and LED (see figure 01).

The infrared sensor allows the device to be programmed via a flex7 remote control if 'out of the box' settings are inappropriate - FRC/SET or FZL/RC (not supplied).

During periods of occupancy the Light Sensor offers a secondary mode of control, making it possible to turn luminaires ON/OFF (daylight dependency) and DIM/ BRIGHTEN (daylight linking) in relation to the available ambient light within the detection zone.

Please note that for luminaires to daylight link the microwave sensor must be used in conjunction with one of FNC3000(A/D/X), FNC4000(A/D/X) or ZoneLite LCM. In addition the luminaire must incorporate a suitable ballast/driver and be capable of being DIMMED/BRIGHTENED.

The LED will flash if movement is detected or a signal is received from a flex7 remote control.

Please read these instructions carefully before installing the microwave sensor and leave them with the end user for future reference.

THE FLEX7 MICROWAVE SENSOR MUST BE INSTALLED BY A QUALIFIED ELECTRICIAN IN ACCORDANCE WITH LOCAL WIRING REGULATIONS.

LOCATION AND FIXING

The FMH400 / FZH/MW (ceiling) should be mounted horizontally and positioned as centrally as possible within the space being monitored. The FMH400/W / FZH/MW/W (wall) should be mounted vertically and positioned at one end of the space being monitored (see figure 02 for respective detection patterns).

To minimise false triggering, microwave sensors should not be installed near plant or machinery with moving parts (e.g. ventilation fans) or fixed to vibrating surfaces.

The microwave sensor's primary function is to turn luminaires ON / OFF as a result of movement within the area of detection. If, in addition, daylight dependency or linking is required the sensor should be positioned in an area where natural light contribution is relatively significant. If this results in the sensor being sited such that it will become less effective for part of the space being monitored for occupancy, consideration should be given to adding a flex7 slave PIR to maintain 'positive detection'.

The microwave sensor must be securely fixed to a suitable surface (wall or ceiling) in conjunction with a 20mm (min) single gang back box. Two 3.5mm screws are supplied for fixing to the back box.
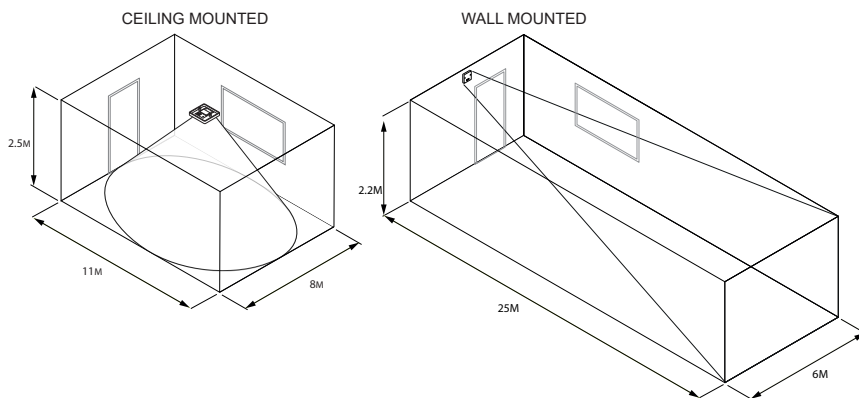
CEILING MOUNTED

WALL MOUNTED

2.5M

2.2M

11M

8M

25M

6M

FIGURE 02

ELECTRICAL

All flex7 12v microwaves must be connected to a suitable control module or ZoneLite LCM via a FSL senor lead. All variants operate at PELV.

If absence, override ON / OFF or manual dimming is required, a wall switch must be connected to a suitable control module via a FSW switch lead. Switches operate at PELV.

Control modules plug directly into a flex7 connection box (see figure 03).

Please refer to individual control module or ZoneLite instructions for more detailed information.
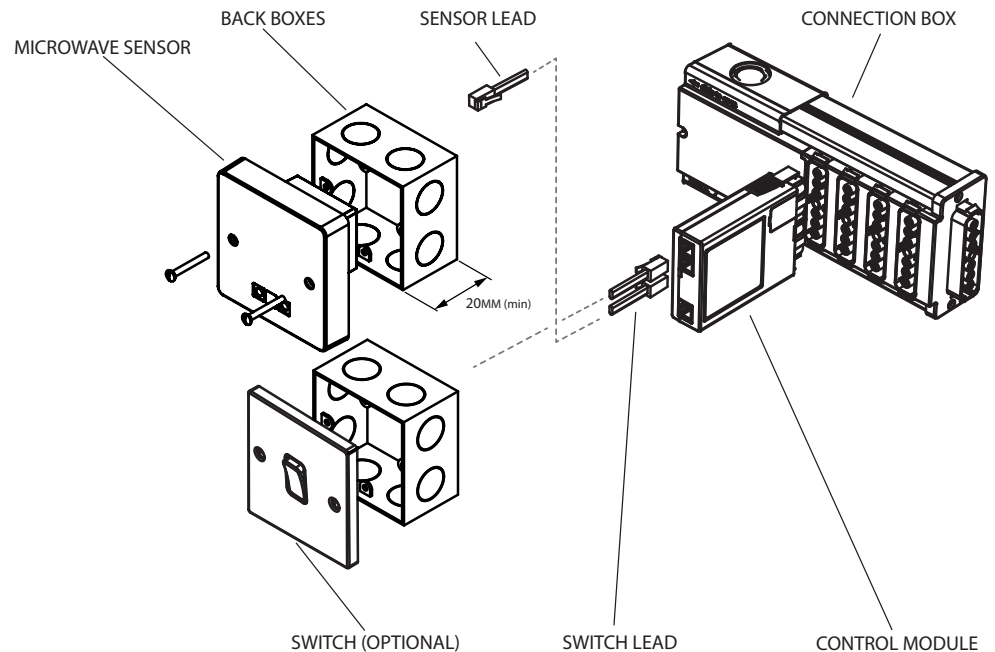
BACK BOXES

SENSOR LEAD

CONNECTION BOX

MICROWAVE SENSOR

20MM (min)

SWITCH (OPTIONAL)

SWITCH LEAD

CONTROL MODULE

FIGURE 03