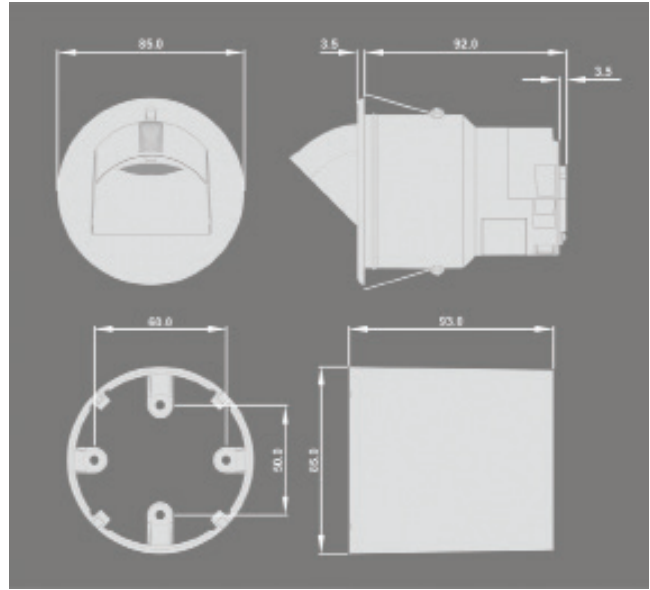


PRE4203-LV-VFC Ceiling Mounted Microwave



Specification:

SUPPLY: MIN 11.5VDC, MAX 36VDC, MIN 10VAC, MAX 26.5VAC
LOAD: Normally open contact
 10 Amp resistive and incandescent lighting
 6 Amp fluorescent lighting and resistive
 3 Amp compact fluorescent lighting
 3 Amp low energy lighting
 3 Amp low voltage lighting (switch primary of transformer)
 Fluorescent lighting (max 6 fittings recommended)
 For fluorescent lighting total power factor correction capacitance must not exceed 40µF.
 3 Amp fans and ventilation equipment

Switch SON lighting loads via a contactor
 Minimum load 100mA
 Normally closed contact
 2 Amp maximum
 Minimum load 100mA
TIME OUT PERIOD: Adjustable 10 seconds to 99 minutes
LIGHT LEVEL: Light to dark
TERMINAL CAPACITY: 2.5mm²
MATERIAL: Flame retardant ABS
TYPE: Class 2
TEMPERATURE: -10°C to 35°C
CONFORMITY: EMC-89/336/EEC LVD-73/23/EEC

Operation:

The PRE4203 (microwave) detector provides automatic control of lighting loads with optional manual control.

It can be used on incandescent, fluorescent and compact fluorescent lighting, and has the added benefit of being able to connect an external switch.

The PRE4203 detects movement using a highly sensitive microwave detector. This works by emitting low power microwave signals and measuring the reflections as the signals bounce off moving objects. The PRE4203 has a unique adjustable sensor head that allows the area of detection to be optimised for the application. Two modes of operation are available:

Presence detection:

When movement is detected the load will automatically turn on. When the area is no longer occupied the load will automatically switch off after an adjustable time period.

If an external switch is connected, this can override the lights off (after the detection time period has elapsed it will revert to automatic operation). An integral adjustable photocell allows

the lights to be kept off if there is sufficient ambient light.

Absence detection:

The load is manually switched on using an external switch. When the area is no longer occupied the load will automatically switch off after the adjustable time period has elapsed. Pressing the switch again during occupancy override the lights off (after the detection time period has elapsed it will revert to automatic operation.) In both modes of operation a short button press turns the load on whilst a long button press turns the load off.

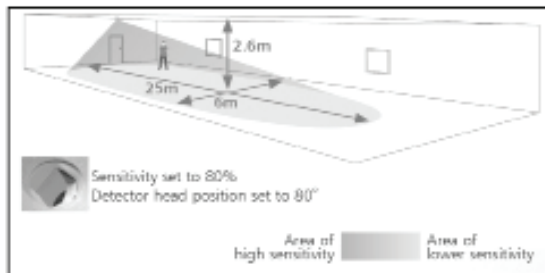
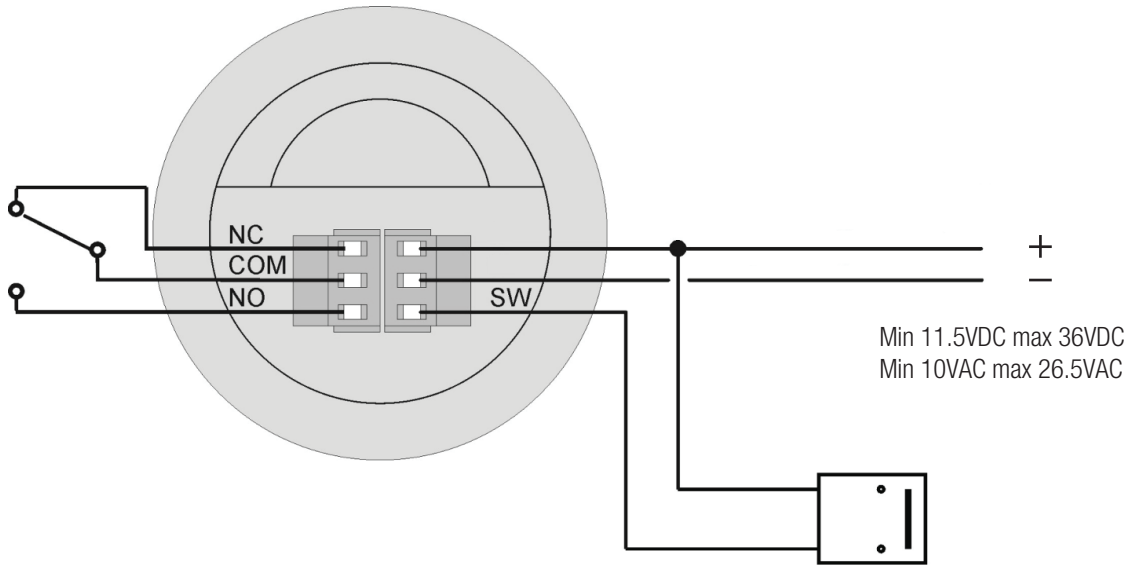
An integral infra-red sensor in the unit allows the unit to be programmed using the optional PRE5900L Programming Handset. This gives complete flexibility over many of the operating parameters. Without the handset, manual adjustments can be made to the sensitivity, lux and time settings using controls accessible behind the lens.

The PRE5900L user handset can be used to change output lux levels and override the lights on or off.

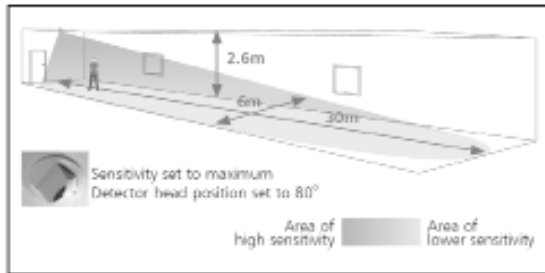
The PRE4203 DD is also available which incorporates a dimming function.



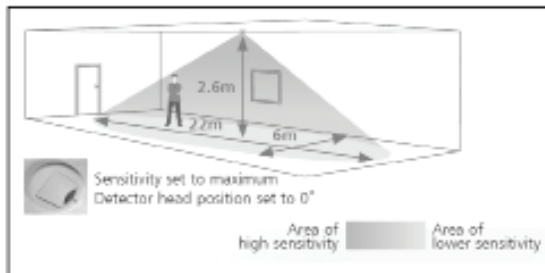
Installation Instructions:



Ideal for large office or classroom



Ideal for corridor or wide applications



Ideal for open plan areas and offices

Installation Instructions Continued:

1. Wire the products using the diagram on page 2.
2. To switch from more than one position simply wire two or more units in parallel using the Live, Neutral and Switched Live wires only.
3. The detector should be sited so that the occupants of the room fall inside the detection pattern shown in section 9.
4. Corridors or aisles, the unit should be placed at the end of the corridor or aisle and the sensor head should be angled to look down the corridor or aisle.
5. Open plan areas and offices.

The unit can be mounted in a corner looking outwards in which case the sensor head should be angled. Or the unit can be mounted in the centre of the area with the sensor head flat. Note that the higher the sensor is installed the shorter the detection range will be.

- Sites as far away as possible from any lighting or ventilation equipment.
 - Do not fix to a vibrating surface.
 - Do not fix to a suspended luminaire.
 - Site as far away as possible from the surface of metal objects.
6. Mount using one of the two options overleaf.
 7. Connect the sensor via the terminal blocks. Live supply to the L terminal; load to the L/OUT terminal; Neutral to the N terminal on the green terminal block. External switch connections to the switch terminal.
 8. Use a small screwdriver to set the LUX level adjuster fully clockwise, the time to minimum (fully anticlockwise) and the sensitivity to maximum (fully clockwise) using the diagram in section 7.
 9. Power the unit up—the load should come on immediately.
 10. Vacate the room or remain very still and wait for the load to switch off (should take no more than 2 minutes).

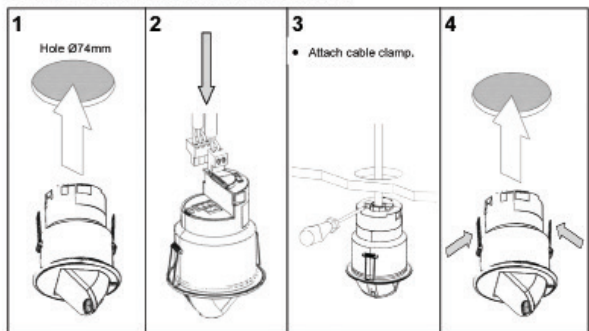
11. Check that the load switches on when movement is detected.
12. The LUX thumbwheel determines the ambient light level at which the lights turn on.
13. Select the time using the adjuster, fully clockwise is the maximum.
14. The area of detection can be varied by altering the angle of the sensor head and the sensitivity adjuster. Note: on maximum sensitivity this unit is extremely sensitive to movement and may detect through glass, thin walls or partitions. If this causes a problem reduce the sensitivity by turning the adjuster anticlockwise.
15. Using the PRE5900L infra-red handset: the override on button turns the unit on permanently; the override off button turns the unit off permanently; the cancel button cancels the overrides. When an override is selected an LED will flash inside the unit. The 5901 handset can also be used to set the lux levels.

Absence detection

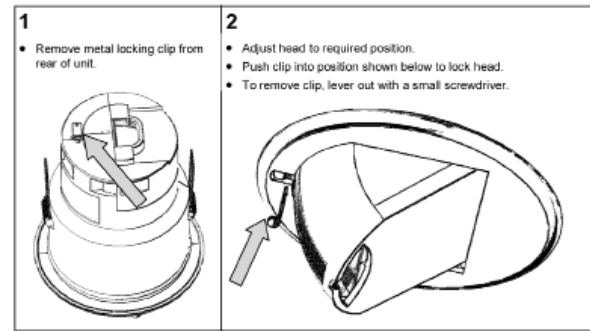
16. To use absence detection a retractive (momentary) switch must be connected between the 2 terminals on the diagram. Note that this will be switching mains voltage.
18. The unit ships with presence detection as default. To change to absence detection, press and release the external switch 5 times within the first minute of power up. The LED will turn on solid for 30 seconds to indicate absence mode has been selected.
19. To change back to presence detection, repeat the above procedure—the LED will flash for 30 seconds to indicate presence mode has been selected. Note: the above adjustments can also be made using the 5901 handset instead of the manual.

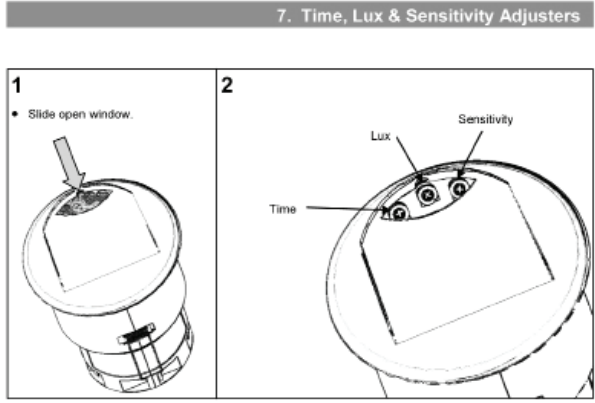
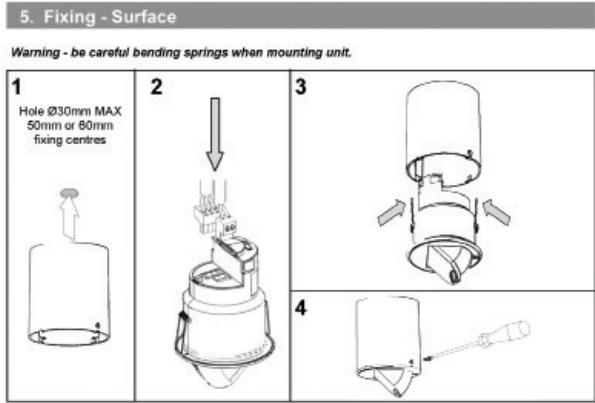
4. Fixing - Flush

Warning - be careful bending springs when mounting unit.



6. Head Locking





Programming:

All the following functions can be programmed using the remote control PRE5900L handset:

1. Detector Parameters (factory default in brackets):

- 1.1 Time adjustment** 10 seconds to 99 minutes time delay (select 0 for 10 second delay – use for commissioning only).
- 1.2 Sensitivity On** (9) Sensitivity level when the detector is already operational adjustable between 1 (min.) and 9 (max.)
- 1.3 Sensitivity Off** (9) Sensitivity level for switching the detector on – adjustable between 1 (min.) and 9 (max.).
- 1.4 Power Up On** (Y) Select No for a 30 second delay on start up. If Yes is selected, there will be no delay on start up and the detector will always power up detecting.
- 1.5 Walk Test** (N) An LED behind the detector lens will flash to show movement has been detected (use for commissioning).
- 1.6 Disable Detector** (N) Disables detection. In this mode the detector acts as a photocell only.

The lux preset determines the light level at which the output is turned on. The sensitivity preset determines the light level at which the output turns off. The time preset prevents nuisance tripping and in this mode is adjustable between 0-13 minutes.

- 1.7 Factory Default** Restores factory default settings.

2. Switching functions (factory default in brackets):

- 2.1 Presence detection** Auto switch on with detection, auto off after movement ceases (default) and time delay ends.
- 2.2 Absence detection** Manual switch on, auto off after movement ceases and time delay ends.
- 2.3 Switch level on** (9) Lux level setting to prevent the luminaires being switched on if the ambient light level is sufficient (adjustable between 1 and 9). The luminaires will always be switched on at level 9.
- 2.4 Switch level off** (9) Lux level setting to switch the luminaires off during occupancy if the ambient light level goes above the setting (adjustable between 1 and 9). Level 9 will always keep the lights on. This setting can be used for “window row switching”.

3 User Menu

PRE5900L user menu handset functions:

- 3.1 Lux up** Can only be used with the set button.
- 3.2 Lux down** Can only be used with the set button.
- 3.3 Override on** Permanently overrides the luminaire output on.
- 3.4 Override off** Permanently overrides the luminaire output off.
- 3.5 Cancel** Cancels the on or off override, returning the detector to normal operation.
- 3.6 Set** Send before using lux up or lux down. The switch level on can then be adjusted using the lux up or lux down buttons.

