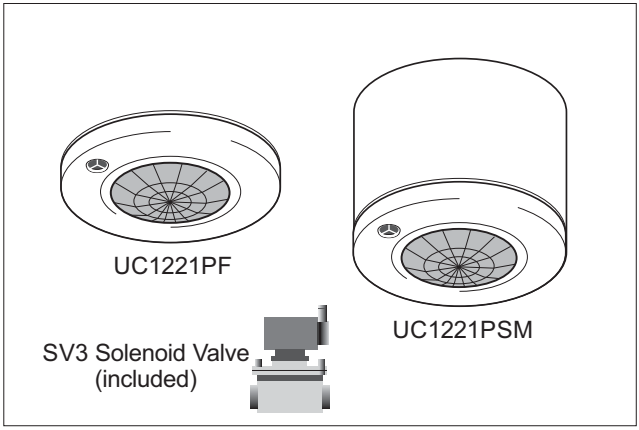
Ex-Or

by Honeywell

LightSpot Washroom Series
UC1221PF / UC1221PSM



Installation and Commissioning Instructions

Note: Infrared Programmer QuickSet Pro required for commissioning

LightSpot presence-detecting washroom controls

Only suitably qualified personnel should install this equipment.

LightSpot washroom controls are high performance presence detectors with photocell. The photocell can operate in three modes: Passive, Active or Disabled. Further information can be found overleaf.

Fixing

UC1221PSM - The housing may be secured to a hard surface or a BESA box. The unit fits into the housing with a simple bayonet action.

UC1221PF - Depth required behind ceiling: 62mm from front flange plus an allowance for the minimum bend radius of the cable. Sinking box fits into an 89mm diameter hole in ceiling tile or plasterboard ceiling. To avoid damage to ceiling tile, do not overtighten. No access above the ceiling is necessary.

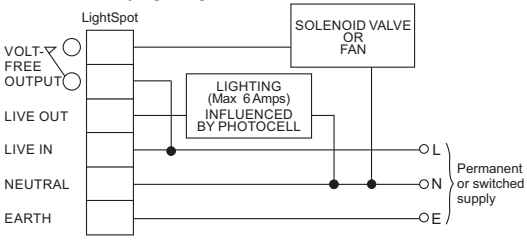
Note: Do not mount within 25cm of a luminaire.

Solenoid Valve

The solenoid valve must be plumbed into the water feed to the urinal header tank and connected to the LightSpot detector using 230V cable. The required direction of water flow is shown on the valve. Avoid contamination by swarf, flux etc.

Single UC1221PF or UC1221PSM

The UC1221 has two outputs, one influenced by the photocell (R1), the other not (R2). This is useful in applications where a fan or water is being controlled in addition to any lighting.



Important Additional Notes

1. All terminals on this product are provided for final connections. It is not intended that the product be used as a junction box for looping cables.
2. A means for disconnection must be incorporated in the fixed wiring in accordance with the current wiring regulations.
3. This equipment switches lights no more frequently than would a responsible human occupant. However, manufacturers of some lighting types (e.g. '2D' luminaires) may specify a maximum number of switching cycles in order to achieve a predicted lamp life. Please check with the manufacturer of the luminaires to ensure that they are compatible with automatic controls in this respect.

Parameter Options

R1 and R2 Off Delay

Independent Off Delays of between 1 minute and 96 hours may be set for each Relay. A 10-second Off Delay is available for walk-testing the product. In a typical office environment a 20-minute Off Delay is usually satisfactory.

Response (Automatic / Semi-Automatic)

Where absence detection is required (i.e. the user manually turns lights ON if required but lights still turn off automatically once an area is vacated), semi-automatic operation can be set via the programmer. It should be noted that this mode of operation affects only the switched-live output. Where semi-automatic operation is required on both outputs, please contact Ex-Or for assistance.

Power Up (On/Off)

Set to ON the detector will automatically switch its outputs on when Mains is applied. If set to OFF, the detector will power up without turning its outputs on, wait for 30 seconds and THEN look for movement. Only if the area is occupied will the output switch on at this time. The detector must be set to Power Up ON when used in conjunction with semi-automatic operation.

Photocell Mode (Passive/Active/Disabled)

The sensor features an in-built photocell. The photocell does not affect the volt-free output - i.e. the volt-free output will turn ON regardless of natural light levels when occupancy is detected. The photocell has three modes of operation - Passive, Active and Disabled. Its operational behaviour is governed by the setting chosen and by the values stored in the Upper and Lower thresholds (see diagram overleaf).

Passive - The photocell will inhibit turn-on of the controlled load if sufficient natural light is available. It will not turn the load off whilst an area is occupied

Active - The photocell will turn the controlled load on and off as required whilst natural light levels fluctuate during a period of occupancy. This mode of operation operates in conjunction with a passing cloud timer (PCT). The PCT is asymmetrical in operation - the load will be switched on immediately that the light level falls below the lower set point, however, the load switches off only if the light level exceeds the upper threshold *continuously* for a period equal to the Off Delay.

Disabled - The photocell has no effect.

24hr Cycle (Yes/No)

For use in 'Washroom Mode' only (see overleaf) to provide hygiene flush. In this mode, if the detector has seen no movement for 24 hours, the output (selectable; default = R2 volt-free) will be switched ON for the duration of the time delay. Used in conjunction with a suitable valve the need for separate urinal flush control is removed.

Lower Threshold (0-254)

The point at which the photocell allows lights to switch on.

Upper Threshold (0-254)

The point where the photocell turns lights off if the photocell is in Active Mode.

Commissioning

The units are supplied with factory default settings (Power-Up On, fully Automatic operation, a 20 minute Off Delay, no 24hr Cycle, Photocell Disabled). Program using the infrared programming tool QuickSet Pro.

Walk-test Mode

Walk-test mode is used to check that the detector is operating as required. The short off-delay enables the installer to check that lights are switching on when movements are made at the edge of the detection zone. It is easier to carry out a walk-test when the photocell is not holding the lights off.

1. Change the Off Delay to 10 seconds using the QuickSet Pro by choosing 'Utilities / LightSpot/MLS/LCM / User Test / Walk Test / OK'.
2. Move around the area that is being controlled, stopping for 10 seconds to allow the lights to switch off, before moving and triggering the lights back on. Re-program the desired Off Delay once testing is complete. The programmed Off Delay will be automatically restored after 5 minutes.

Setting the Photocell (Photocell only affects the 'Live Out' output)

1. Wait until the time of day when the ambient light level is equal to the level at which you want the photocell to become active.
2. Using the QuickSet Pro, from the Utilities menu select 'LightSpot/MLS/LightSpot' then 'Set Light Level' and press OK while pointing at the detector to store the current light level - the lights must be on prior to starting this process. The detector stores two values in Lower Threshold and Upper Threshold.
3. If required, these values can be manually edited via the QuickSet Pro. Please note, these are not Lux levels but a representation of the light levels perceived by the detector at the time of the store command.

   Note: If the photocell is set to Passive, only the value in the Lower Threshold is relevant.

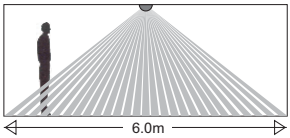
   If the photocell is set to Active, once the ambient light level drops below the Lower Threshold value, the lights will turn ON. If the ambient level exceeds the value of the Upper Threshold for the duration of the off-delay (Passing Cloud Timer) then the lights will turn ON. If the photocell is set to 'Disabled' when a Set Light Level operation is made, it will revert to operating in Passive mode.

Washroom Mode

This product allows the control of water for washroom management applications (urinals). In order to maintain good standards of hygiene the products feature a washroom mode (24hr Cycle) that, if enabled, ensures that when urinals have not been used for 24 hours (i.e. the controlled area has been unoccupied), a hygiene flush occurs. The 'flush' will occur on the volt-free output although this can be changed via the QuickSet Pro Programmer.

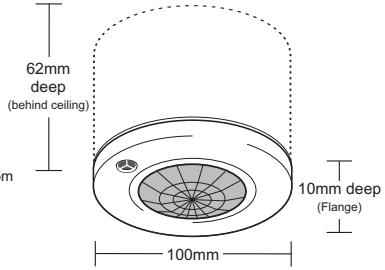
Technical Data

OPERATING VOLTAGE: 230V 50Hz (UK & Europe)
RECOMMENDED CIRCUIT PROTECTION: 10 Amps
TERMINAL CAPACITY: 2 x 2.5mm^2
MAXIMUM LOAD: 6 Amps per output [not exceeding 10A in total)
MAXIMUM RECOMMENDED MOUNTING HEIGHT: 3 metres
RANGE: Cone-shaped detection pattern, diameter (at floor level) = 2.4 x mounting height



PHOTOCELL: Adjustable 50-5000 lux via Programmer
OFF DELAY 1 & 2: Adjustable via Programmer - factory pre-set to 20 mins
Each output is independently adjustable
COLOUR: White RAL9010
MATERIAL: Flame retardant PC/ABS
WEIGHT: 210g (Flush version), 187g (Surface version)
IP RATING: 3X

Dimensions



Honeywell Ex-Or
St. Marks Court, North Street,
Horsham, West Sussex, RH12 1BW, UK
Tel: +44 (0)1942 719229
Fax: +44 (0)1942 508753
Email: technicalsales.ex-or@honeywell.com
www.ex-or.com

At the end of their useful life the packaging and product should be disposed of via a suitable recycling centre.
Do not dispose of with normal household waste.
Do not burn.

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