

LightSpot - Stand-alone lighting control by presence detection and photocell

Multi-Function LightSpot

The Multi-Function LightSpot is a dual-output presence detector with photocell which uniquely can be programmed to perform any one of the following combinations of functions:

● Lighting Control + Emergency Test Control

This mode allows the testing of an area of Emergency Lighting to be conveniently implemented without the expense of a special, single-function controller or any hard wiring. Convenient and easy to use, emergency test is initiated by infrared controller (HP2000 or the dedicated HC8) and a highly visible, blue LED shows that testing is underway.

There is no need for manual timing: automatic test durations of 1 minute or 1, 2, 3 or 5 hours can be selected and a test can be terminated manually at any point. To ensure battery life is maintained, there is even a lock-out feature that limits testing if there has been more than 5 minutes' battery usage or mains outage in the previous 24 hours.

● Lighting Control + Air Conditioning Control

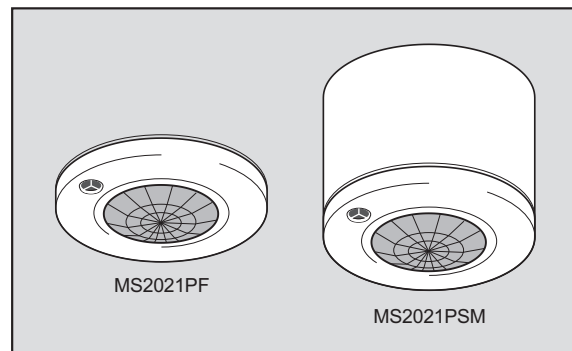
While lighting needs to be provided immediately that someone enters a room, this is not the case with air conditioning, so there are two independently programmable timers: a hold-off timer to avoid responding to momentary occupancy (1, 3 or 5 minutes delay) and a fully programmable run-on timer. Individual on/off control is provided via the dedicated HC7 hand-held infrared controller (or HC5 Universal Controller).

● Lighting Control + Water/Fan Control

Here the volt-free output is used to control a toilet-flush cistern-fill valve or extractor fan. The flush or fan control can be programmed independently from the lighting control. To ensure that fresh, hygienic conditions are maintained during holiday shutdowns, an automatic daily flush takes place.

● Two-Channel Lighting Control

The switched-live output is influenced by the photocell while the volt-free output is not. Each output has an independent off-delay timer. The volt-free output operates in AUTO mode while the switched-live output can be operated in AUTO or SEMI-AUTO (Absence Detection) modes. Relay 1's delay timer may be disabled so that the unit operates as an active photocell, uninfluenced by movement.



Presence detection is by passive infrared, effectively enhanced to improve sensitivity to small movements.



Passive photocell holds lights off in ambient conditions. Active photocell has the capability to switch lights off in occupied areas.



Off delay following the last observed movement after which the lights switch off. Each output is independently adjustable.



Detection pattern and approx range in metres at floor level for 2.5m mounting height (detection pattern is cone shaped).



Switched live influenced by photocell and occupancy; volt-free output by occupancy only. Independent time delays can be programmed via HP2000.



Hand controllers provide local user override/operation (HC5, HC7 & HC8 as appropriate to mode).



Remote programming by HP2000 ensures changes can be easily accommodated.



Air-conditioning control. Switched live for lighting control, volt-free output for air-conditioning control.

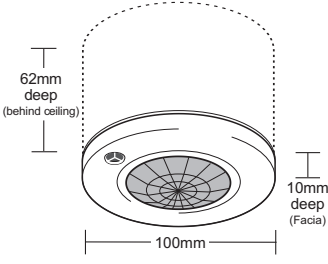
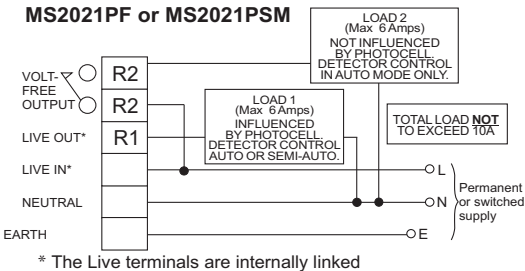
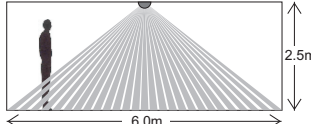






Emergency test control. Switched live for main lighting, volt-free output for emergency test procedures.



Washroom mode. If no movement is detected in a 24-hour period, detector can be programmed to switch the load on for the duration of the off delay.

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Dimensions & Installation Notes	Programmable Parameters (via HP2000)
<p>Fixing</p>  <p>MS2021PSM - The housing may be secured to a hard surface or to a BESA box. The unit fits into the housing with a simple bayonet action.</p> <p>MS2021PF - Supplied with a sinking (dry-lining) box for flush fitting. The sinking box fits into an 89mm diameter hole in a ceiling tile or plasterboard ceiling. To avoid damage to ceiling tile do not overtighten. Depth required behind ceiling 62mm from front flange plus an allowance for the minimum bend radius of the cable. No access above the ceiling is necessary.</p> <p>DO NOT FIT WITHIN 25cm OF A LUMINAIRE</p>	<p>POWER UP Options: On/Off Sets the status of luminaires when power is applied. On - lights power-up on irrespective of occupancy. Off - lights respond to occupancy after 30 seconds. Pre-set - On</p>
<p>Example Wiring Diagram</p>	<p>RESPONSE Options: Auto/Semi-auto Auto - lights switch on and off automatically. Semi-auto - lights are switched on by wall switch or hand-held controller and switch off automatically. NOTE: If manual operation is via hand-held controller only, Power-up Off may be used in Semi-auto mode. If a wall-switch is to be used, Power-up On coupled with a means of interrupting the mains power to the MS2021P is required (e.g. push-to-break momentary switch capable of switching the load on both the switched-live and volt-free outputs if the latter is not supplied separately.) Pre-set - Auto</p>
<p>Always check product label before connecting.</p>  <p>MS2021PF or MS2021PSM</p> <p>LOAD 2 (Max 6 Amps) NOT INFLUENCED BY PHOTOCELL. DETECTOR CONTROL IN AUTO MODE ONLY.</p> <p>LOAD 1 (Max 6 Amps) INFLUENCED BY PHOTOCELL. DETECTOR CONTROL AUTO OR SEMI-AUTO.</p> <p>TOTAL LOAD NOT TO EXCEED 10A</p> <p>* The Live terminals are internally linked</p>	<p>R2 OFF DELAY Options: 1 min - 96 hrs/Disabled In Lighting mode this sets the period after the last observed movement until the secondary lights switch off. In other modes, setting this delay to longer than R1, allows for an extended filling time for flush cistern or for extractor fan/air conditioning run on. Not used in Emergency Test mode. Pre-set - 20 mins</p>
<p>Technical Data</p>	<p>R2 MODE Options: Lighting/Washroom/Emergency A/C DLY: 1 Min/3 Min/5 Min Sets the mode of operation of the R2 load. Pre-set - Lighting</p>
<p>OPERATING VOLTAGE: 230V 50Hz (UK & Europe) RECOMMENDED CIRCUIT PROTECTION: 10 Amps TERMINAL CAPACITY: 2 x 2.5mm² 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</p>  <p>PHOTOCELL: Adjustable 50-5000 lux via HP2000 OFF DELAY 1 & 2: 1 minute - 96 hours adjustable and 10 second Walk Test Mode [Each output independently adjustable] COLOUR: White (RAL9010) MATERIAL: Flame retardant PC/ABS WEIGHT: 200g approx IP RATING: 3X OPERATING TEMPERATURE: 0°C to 40°C</p>	<p>PHOTOCELL Options: Active/Passive/Disabled Affects the R1 Load only Passive - holds lights off when sufficient natural light. Active - lights turn on and off as required when natural light levels fluctuate and area is occupied. Disabled - the photocell has no effect. Pre-set - Disabled</p>
<p>Ex-Or operates a genuine policy of continuous improvement. You may expect the specification to be regularly enhanced. For latest technical information, please visit www.ex-or.com</p>	<p>Ancillary Items</p>  <p>HP2000 HP2000 MLS Digital Programmer Menu-driven LCD Programmer with automatic equipment recognition and parameter download facilities.</p>  <p>HC5 HC5 Universal Hand-held Controller</p>  <p>HC7 HC7 Air-conditioning Hand-held Controller</p>  <p>HC8 HC8 Emergency Test Hand-held Controller</p>

Part Numbers

MS2021PF Multi-Function LightSpot - flush
MS2021PSM Multi-Function LightSpot - surface

Accessories

HP2000 MLS Digital Programmer
HC5 Universal Hand-held Controller c/w wall bracket
HC7 Air-conditioning Hand-held Controller c/w wall bracket
HC8 Emergency Test Hand-held Controller c/w wall bracket
SV2 Solenoid valve
SVB Solenoid valve housing