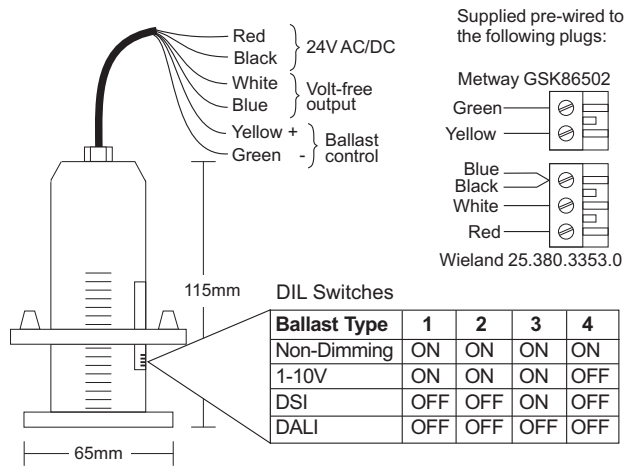


## Electrical Connections



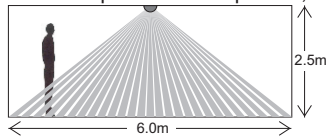
## Technical Data

OPERATING VOLTAGE: 24V AC/DC

POWER CONSUMPTION: <0.5W

MAXIMUM RECOMMENDED MOUNTING HEIGHT: 3.0m

RANGE: Cone-shaped detection pattern, diameter (at floor level) = 2.4 x mounting height



DEPTH REQUIRED BEHIND CEILING: 125mm

WEIGHT: 70g excluding cable

COLOUR: White

MATERIAL: Flame retardant PC/ABS

IP RATING: 4X

SW OUTPUT: Gold contacts for signal only (0.5A @ 24V ac/dc)

BALLAST CONTROL: Up to 25 analogue or digital ballasts

## Ex-Or

Haydock Lane, Haydock, Merseyside WA11 9UJ

Tel: +44 (0)1942 719229

Fax: +44 (0)1942 272767

Email: technicalsales.ex-or@honeywell.com

www.ex-or.com



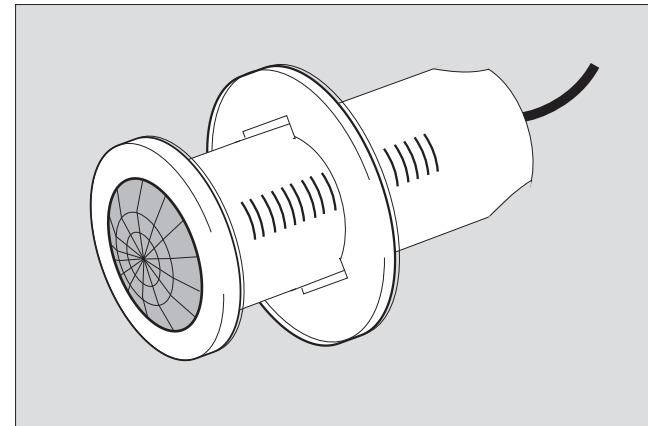
At the end of their useful life the packaging and product should be disposed of via a suitable recycling centre. Do not dispose of with normal household waste. Do not burn.



W4062G



## MS1224UF Silver Series Regulating LightSpot 24V AC/DC Operation



## Installation and Commissioning Instructions

Note: HP10 or HP2000 required for commissioning

## MS1224UF Silver Series Regulating LightSpot

Only suitably qualified personnel should install this equipment.

### Installation

Set the DIL switches to suit the ballast type (as shown in table opposite).

This detector is suitable for flush fitting to a suspended ceiling of thickness up to 54mm. A minimum clearance of 125mm is required between the front surface of the ceiling tile and the hard ceiling. Choose a suitable mounting location; ideally this would be in the centre of the controlled lighting and as close as possible to where occupants normally sit. Do not mount within 25cm of a fluorescent luminaire.

Cut a 50mm diameter (64mm if using an FR64 flush ring or PB64 plasterboard fixing kit) circular hole in the tile. Feed the flying lead and detector through the hole and secure in position with the locking ring. Twisting the locking ring will release the detector should this be necessary.

### Connection

The detector is supplied with a flying lead and plugs for connection to an appropriate Connection Centre.

### Commissioning

The factory pre-set parameters will be appropriate for most applications. However, the installer does have the facility to re-programme the parameters and to set the light level using the HP10 or HP2000 infrared programming tool. The table opposite shows the pre-set factory settings with a brief explanation of each parameter. These parameters may be re-programmed any number of times and all settings will be retained in the event of a power loss.

### Changing Pre-set Parameters

Using the table "Parameter Options for MS1200D" in the HP10 instructions.

1. Set switches to ON or OFF according to the desired settings.
2. Hold the programmer vertically beneath the detector and press button A. The detector turns its load OFF to indicate the beginning of a programming event and turns back ON almost immediately if the operation is a success. If the detector does not turn back on, repeat the process.

### Setting the Light Level (Dimming ballasts)

1. Point the programmer at the detector and adjust the light output using the UP/DOWN buttons until the desired light level is achieved locally (note that it may not be possible to do this in the presence of strong natural light).
2. Press STORE, two seconds later the load (regulating ballasts) blinks to indicate a successful store operation. The detector will now regulate the light output in order to maintain the level of illuminance at this new set point.

### Setting the Light Level (Non-dimming ballasts)

Press the 'STORE' button at a time when the ambient light level is at the desired minimum level.

### Important Additional Notes

1. A means for disconnection must be incorporated in the fixed wiring in accordance with the current wiring regulations.
2. Although nominally 12V, the dimming output is not ELV and therefore should be treated with the same respect as mains with regard to wiring practice. The 0V line of the dimming output is almost at Neutral potential.
3. The dimming control output should be connected only to the control input of the ballasts - never to other detectors.
4. This equipment should be used to control only those ballasts powered from the same phase as the detector.
5. Due to the fact that the photocell is on the ceiling looking down, it is not possible for measurements made with a lux meter on the working plane to remain constant when daylight illuminates the ceiling and the working plane to a differing extent. Therefore, products of this type should be regarded as capable of maintaining an APPROXIMATE light level only.

## Programmable Parameters

Please note: Parameters marked \* are not applicable where non-dimming ballasts are used.

Parameter	Options	Pre-set	Notes
Power-up	on/off	on	Sets the luminaire state at power-up irrespective of occupancy. Useful in reducing start-up load following power cut. Power-up off responds to occupancy after 30 seconds.
Start-up level*	max/min	max	Sets the level at which the lamps strike when switching on.
PIR operation	auto/ semi-auto	auto	If set to auto, the presence detector switches the luminaire on and off automatically. If set to semi-auto, the luminaire will not switch on automatically when a person enters the area. It can be turned on using an HC5 or HC6 hand-held controller or by toggling the power switch. When the area is vacated, the light will switch off automatically.
Bright-out*	yes/no	no	If set to yes, movement fails to refresh the off delay if the ambient light level is 125% of its desired level, and the luminaire will switch off when the off delay has elapsed.
Minimum on-time	yes/no	no	If set to yes, the luminaire is guaranteed to stay on for at least 20 minutes, regardless of the off delay setting.
Off delay	5 - 35 minutes	20 minutes	The time for which the luminaire will stay on following the last detected movement. Also 10 second setting for walk-testing.
Fade to off*	yes/no	no	When no presence is detected, and after the off delay has elapsed, the lamps can fade to off instead of switching off (approx 80 seconds to fade from 100%).
When vacant*	low/off / reg <25%	off	These are the options for a vacant area after it has timed out. Luminaires can turn off, remain at minimum output, or regulate to a maximum 25% output, until the next period of occupancy. If programmed to remain at minimum or regulate below 25%, there is a programmable option to switch off after 3 hours.
Light level	1-100%	100%	Can be set to regulate at any level within the light output range of the fitting.