

## MLS Digital - Networked Managed Lighting System

# Remote Detector for Fixed-output Ballasts

MLS Digital offers a flexible, user-responsive, building-wide control solution via a network of communicating detectors. Constant monitoring of occupancy and ambient light levels enables the system to automatically deliver optimum lighting conditions while effecting energy and cost savings. MLS Digital is available for use with all fixed-output and digital dimming HF ballasts.

This data sheet covers the ceiling-mounted MLS Digital Detector for use with fixed-output ballasts. This remote detector is used to control groups of luminaires. It provides switching where there is no need for regulating light levels and incorporates a passive photocell to maximise energy savings.



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



Passive photocell holds lights off in bright ambient conditions.



Off delay: Period following the last observed movement after which the lights switch off.



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



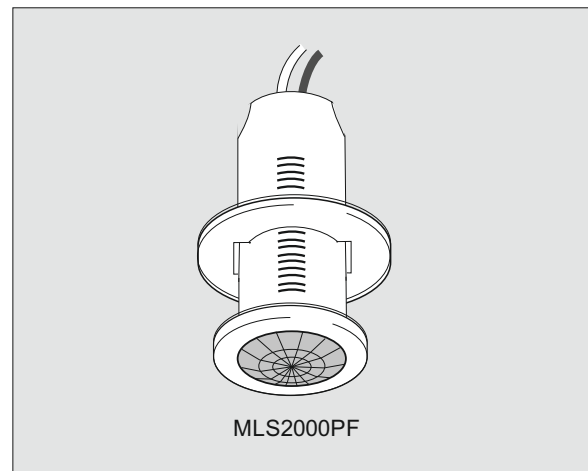
Incorporates simple scene-setting - up to six scenes can be set via user remote.



Hand-held Controller provides local user override.



Remote programming via hand-held commissioning device ensures changes can be easily accommodated.



### Commissioning the Programmable Parameters

Operation of the system is determined by its commissioning. This is carried out using a menu-driven infrared remote programmer (QuickSet Pro) with virtually no disturbance to the building's occupants. Settings can be changed whenever required in the same way. The programmable parameters are shown overleaf in the order they are presented on the programmer. Options are selected from alternatives.

### Commissioning of Lighting Scenes

Lighting scenes are set up using the infrared HC5A Hand-held Controller. The scene is set manually then stored by a long press on the selected scene button. New scenes can be set in this way without the need for separate programming.

### Ancillary Items



**QuickSet Pro Digital 2-Way Programmer**  
 Menu-driven LCD Programmer with automatic device recognition and parameter download facilities.

QUICKSET PRO

### HC5A Universal Hand-held Controller

Allows user override. Supplied with wall bracket.



HC5A

### RB2000 Bus Power Supply

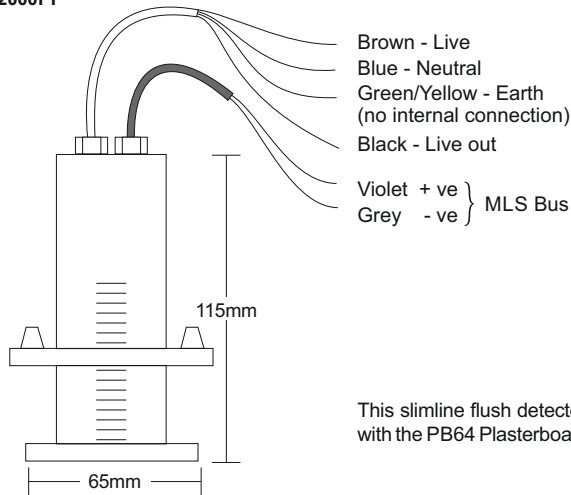
A single Bus Power Supply synchronises and powers the bus for up to 200 MLS devices. It also provides a test facility. Units may be linked for larger installations and to provide a building-wide common zone. (RB2000LT Bus Power Supply may also be used but with reduced functionality.)



Please check [www.ex-or.com](http://www.ex-or.com) to ensure this is the most recent issue - Ref: D4030N

## Electrical Connections & Dimensions

MLS2000PF



This slimline flush detector is suitable for mounting into a suspended ceiling (or plasterboard when used with the PB64 Plasterboard Fixing Kit).

Programmable Parameters	Selectable Options (Factory pre-set shown in bold)	
Power up	On / Off	<p><b>Scene-setting</b></p> <p>While scene-setting is aimed primarily at dimming applications, fixed-output luminaires controlled by these detectors can be included in any of the six scenes in an 'ON' or 'OFF' state. Scenes can be recalled with a single press of a button.</p> <p><b>Entry and Exit Scenes</b></p> <p>The Entry Scene is automatically selected when the area becomes occupied. Similarly, there is an option to select an Exit Scene for when an area is vacated.</p>
Response	Auto / Semi-Auto	
Off Delay	1 min to 96 hours plus 10 seconds for walk test. <b>20 mins</b>	
Bus Connect	Yes / No	
1st Zone	1-100 addresses / Common Zones 1-3. Pre-set to -- ( <b>no zone</b> )	
2nd Zone	1-100 addresses / Common Zones 1-3. Pre-set to -- ( <b>no zone</b> )	
3rd Zone	1-100 addresses / Common Zones 1-3. Pre-set to -- ( <b>no zone</b> )	
4th Zone	1-100 addresses / Common Zones 1-3. Pre-set to -- ( <b>no zone</b> )	
Corridor 1 Begin/End	00-100 / Building. Pre-set to -- ( <b>no zone</b> )	
Corridor 2 Begin/End	00-100 / Building. Pre-set to -- ( <b>no zone</b> )	
Global 1 Rx	Yes / <b>No</b>	
Global 2 Rx	Yes / <b>No</b>	
Entry Scene	Select Scenes 1 - 6. <b>Scene 1</b>	
When Vacant	<b>Switch Off after Off Delay</b>	
	Go to Scene 6 do not switch off	
	Go to Scene 6 for three hours then switch off	
Threshold	0-254 (Level below which photocell triggers lights when occupancy is detected.) <b>254</b>	

## Technical Data

MAXIMUM RECOMMENDED MOUNTING HEIGHT: 3.0m  
 RANGE: Cone-shaped detection pattern, diameter (at floor level) = 2.4 x mounting height  
 OPERATING VOLTAGE: 230V 50Hz (UK & Europe)  
 PRODUCT RATING & RECOMMENDED CIRCUIT PROTECTION: 10 Amps  
 CAPACITY: Maximum load 6 Amps  
 OUTPUT: Switching  
 PHOTOCELL: Passive  
 OFF DELAY: 1 minute - 96 hours plus 10 second walk-test  
 DEPTH REQUIRED BEHIND CEILING: 125mm  
 WEIGHT: 70g excluding cable  
 COLOUR: White  
 MATERIAL: Flame retardant PC/ABS  
 IP RATING: 4X  
 OPERATING TEMPERATURE: 0°C to 40°C

### Note

The photocell is active in Scene 1 only. When the ambient light level reaches the pre-set level, the photocell will hold off the lights as an area becomes occupied. The photocell allows the lights to come on as the ambient light level drops but will not turn lights off in an occupied area.

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](http://www.ex-or.com)

### Part Numbers

MLS2000PF	MLS Digital Detector for fixed output HF ballasts - slimline flush
RB2000	MLS Digital Bus Power Supply
RB2000LT	MLS Digital Bus Power Supply 'Lite'
QUICKSET PRO	QuickSet Pro Digital 2-Way Programming Tool
HC5A	Universal Hand-held Controller c/w wall bracket