

MLS Digital - Networked Managed Lighting System

Mid-Bay & Hi-Bay Integral Luminaire Controllers

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.

These MLS Luminaire Controllers may be integrated within luminaires with all makes of high-frequency regulating ballasts to provide individual luminaires with presence detection, daylight regulation/photocell control and full communication functions.

The Mid-Bay controller is suitable for mounting at a height of up to 12m while the Hi-Bay controller can be mounted at up to 16m height. These controllers are available for DSI or DALI ballasts.



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



Regulating photocell ensures a minimum maintained light level, taking account of the contribution from adjacent luminaires and daylight



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



Mid-Bay version: Detection pattern and range in metres at floor level (detection pattern is cone shaped). Range to mounting height ratio is 1:1.75, i.e. at 8m height, the cone's diameter is 14m at the floor.



Hi-Bay version: Detection pattern and range in metres at floor level (detection pattern is cone shaped). Range to mounting height ratio is 1:1, i.e. at 9m height, the cone's diameter is 9m at the floor.



Incorporates simple scene-setting - up to six scenes including entry and exit scenes can be set or recalled via user remote.



Hand-held Controller provides local user override.



Remote programming via HP2000 ensures changes can be easily accommodated.



OneSwitch Dimming. Manual input to adjust light level or turn luminaires on or off. Available on Two-part Controllers.



100-hour Burn-in. Inhibits dimming functions to allow new lamps to burn in.



Commissioning the Programmable Parameters

Operation of the system is determined by its commissioning. This is carried out using a menu-driven infrared remote programmer (HP2000) 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; options for each parameter are selected from alternatives.

Commissioning of Lighting Scenes

Lighting scenes are set up using the infrared HC5 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 devices.

Ancillary Items

HP2000 MLS Digital Programmer

Menu-driven LCD Programmer with automatic device recognition and parameter download facilities.





HC5 Universal Hand-held Controller

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 to ensure this is the most recent issue - Ref: D4136A

Electrical Connections

Please Note: The MLS Bus is polarity-conscious unless specified otherwise on the detector/control module.

Programmable	Selectable Options
Parameters	(Factory pre-set shown in bold)
Power up	On / Off
Response	Auto, Manual/Bus, Manual
Off Delay	1 min to 96 hrs / 10-second Walk-test Mode / Disabled. 20 mins
On Sensitivity	0-100 100
Bus Connect	Yes / No
1st - 4th Zone	1-100 addresses. None
Corridor 1 & 2	Set addresses to begin and end contiguous group of zones. None
Global 1 & 2 Rx	Yes / No
Start lamps	Max / Min
Entry Scene	Select Scenes 1 - 6. Scene 1
Bright-out	Yes / No
Dimming	Reg 100-50% Reg 100%
	Sets the regulating range of the ballast in daylight conditions, i.e. at
	100% the ballast can regulate over its full range, at 70% the ballast will
	not dim below 30% output. Manual override is not affected.
Lamp Max	10%-100% 100%
Fade to Off	Yes / No
When Vacant	Switch Off after Off Delay
	Go to Minimum and do not switch off
	Regulate up to 25% for 3 hours then switch off
	Go to Scene 6 until building is vacated then switch off
Set-Point High	Aiming point as photocell adjusts ballast output. 1023
Set-Point Low	Level above which photocell switches its output off (only if Bright-out =
	Yes) 1023
Additional feature available under Utilities on HP2000:	

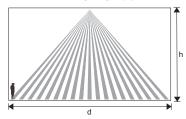
Technical Data

Mid-Bay

MAXIMUM RECOMMENDED MOUNTING HEIGHT: 12.0m

RANGE: 360° cone-shaped detection pattern:

Diameter at floor level (d) = 1.75 x mounting height (h)

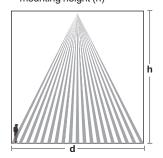


Hi-Bay

MAXIMUM RECOMMENDED MOUNTING HEIGHT: 16.0m

RANGE: 360° cone-shaped detection pattern:

Diameter at floor level (d) = mounting height (h)



Both Types:

MLS CABLE: 1.5mm² unscreened twisted-pair:

see Application Note AN4001

OPERATING VOLTAGE: 230V 50Hz (UK & Europe)

COLOUR: White bezel

OPERATING TEMPERATURE: 0°C to 55°C CAPACITY: DSI Digital - 4 ballasts max DALI - 1 ballast max

MATERIAL: Flame retardant PC/ABS

IP RATING: 4X WEIGHT: 50g

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.

Part Numbers

100-hr Burn-in

MLS2000DIMBWMLS Digital Mid-Bay Luminaire Controller for DSI ballasts - white bezelMLS2000DALIMBWMLS Digital Mid-Bay Luminaire Controller for DALI ballasts - white bezelMLS2000DIHBWMLS Digital Hi-Bay Luminaire Controller for DALI ballasts - white bezelMLS Digital Hi-Bay Luminaire Controller for DALI ballasts - white bezel

Inhibits dimming functions during burning-in of new lamps. 0hr

RB2000 MLS Digital Bus Power Supply
RB2000LT MLS Digital Bus Power Supply 'Lite'

HP2000 MLS Digital Programmer

HC5 Universal Hand-held Controller c/w wall bracket