

# LDM31, LDM32, LDM61 300W/600W Dimmers



LDM31U	1 Gang 300W Dimmer, 868.4MHz, UK/UAE
LDM32U	2 Gang 300W Dimmer, 868.4MHz, UK/UAE
LDM61U	1 Gang 600W Dimmer, 868.4MHz, UK/UAE
LDM31S	1 Gang 300W Dimmer, 868.4MHz, Singapore
LDM32S	2 Gang 300W Dimmer, 868.4MHz, Singapore
LDM61S	1 Gang 600W Dimmer, 868.4MHz, Singapore
LDM31M	1 Gang 300W Dimmer, 868.1MHz, Malaysia
LDM32M	2 Gang 300W Dimmer, 868.1MHz, Malaysia
LDM61M	1 Gang 600W Dimmer, 868.1MHz, Malaysia
LDM31H	1 Gang 300W Dimmer, 919.8MHz, Hong Kong
LDM32H	2 Gang 300W Dimmer, 919.8MHz, Hong Kong
LDM61H	1 Gang 600W Dimmer, 919.8MHz, Hong Kong
LDM31I	1 Gang 300W Dimmer, 865.2MHz, India
LDM32I	2 Gang 300W Dimmer, 865.2MHz, India
LDM61I	1 Gang 600W Dimmer, 865.2MHz, India

## Compatible with astral dimmer fascias (supplied separately)

	LDF21	1 Gang Metal Dimmer Fascia		LDF11	1 Gang Plastic Dimmer Fascia
	LDF22	2 Gang Metal Dimmer Fascia		LDF12	2 Gang Plastic Dimmer Fascia

## Features and Benefits

1 and 2 Gang versions available

Up to 75m RF range (open field)

Can control either a group or scene

Can control up to 5 devices in total

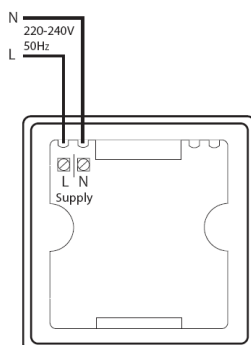
Maximum of 5 devices per control channel

Mains-powered

astral holiday mode occupation simulation

Use astral dimmer fascias

## Installation:



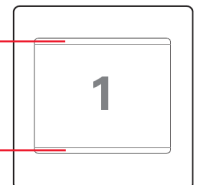
**IMPORTANT**  
The mains supply must be protected by a 10A class B or C MCB

## Operation:

### Normal Operation:

Short press ON/SET SCENE  
Long press DIM UP

Short press OFF  
Long press DIM DOWN



## Command Status Indications:

**Flash red 1 time:** Device not included in the network

**Flash green 3 times:** Command received by all target switches and dimmers

**Flash red 3 times:** At least 1 target device has not confirmed receipt of the command.

**High level blue:** Load ON

**Low Blue:** Night locator.  
(Visible only in low light level conditions.)

**Red flash every 3s:** Load switched OFF due to detection of overload or short circuit condition on load side of switch

**Alternating High/Low: blue every second** Holiday mode active

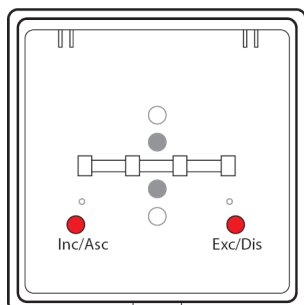
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## Program Buttons and Functions:

### Program buttons:

Located on front of module beneath fascia



### Program functions:

Group/Scene control select    NVM reset  
Delete group/scene                Update request to SUC/SIS

## Power Supply:

Power Source:	Mains
Rated voltage:	220 - 240Vac / 50Hz
Power Consumption:	<1W in standby

## Load Specification:

Suitable for use with the following load types and maximum load ratings only.

	1G 300W Dimmer	1G 600W Dimmer	2G 300W Dimmer
GLS / Incandescent, Tungsten Halogen	25-300W	25-600W	25-300W per channel
12V Halogen lamps with wire-wound or electronic transformers	35-300VA	35-600VA	35-300VA per channel

Not suitable for any other load type.

Do not use different types of lamps on the same circuit.

Remember to allow for the inefficiency and losses in the transformer when calculating dimmer loading, (e.g. a 50VA transformer will look like more than 60VA to the dimmer if it is 80% efficient).

### Notes on using ELECTRONIC TRANSFORMERS:

To minimise the risk of flicker associated with using electronic transformers at low dimming levels please take note of the following installation points:

- Always follow the loading instructions for the transformer and load the transformer to a minimum of 70% of its rating.
- Always use transformers from the same manufacturer and of the same type and size on each load circuit.
- Load each transformer equally.
- Do not use both electronic and wire-wound transformers on the same load circuit.

### Notes on using MAGNETIC TRANSFORMERS:

- Always use transformers of a similar rating to the load connected to it.
- Always follow the loading instructions for the transformer and load the transformer to at least 50% of its rating.
- Remember to allow for the losses of the transformer.  
(A 100VA transformer will actually load the dimmer with approx 120VA (or more) depending on the transformer.)

## RF Performance:

### RF operating frequency:

LDM31U, LDM32U, LDM61U	868.4MHz for use in UK, Ireland, UAE
LDM31S, LDM32S, LDM61S	868.4MHz for use in Singapore
LDM31M, LDM32M, LDM61M	868.1MHz for use in Malaysia
LDM31H, LDM32H, LDM61H	919.8MHz for use in Hong Kong
LDM31I, LDM32I, LDM61I	865.2MHz for use in India

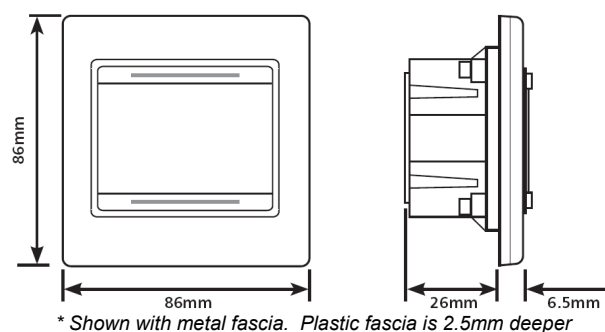
### RF operating frequency:

RF range	Up to 75m (open field)
Modulation	FM
Radiated power	<1mW

## Mechanical and Environmental:

### Dimensions:

with metal fascia	86(h) x 86(w) x 32(d)mm
with plastic fascia	86(h) x 86(w) x 34.5(d)mm
Wall box depth	35mm (min)



### Weights:

1 Gang Dimmer	100g
2 Gang Dimmer	103g
Metal Fascia	54g
Plastic Fascia	30g

### Temperature and Humidity:

Operating	0°C to +45°C
Storage	-20°C to +60°C
Humidity	95% (non condensing)

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## Certification and Approvals:

### Certification:

CE marked	Yes
EU Directives:	LVD, EMC and R&TTE
LVD:	(BS) EN 60669-2-1 (MS) IEC 60669-2-1 SS227-2-1
EMC:	(BS) EN 61000-6-1 / 3 (MS) IEC 61000-6-1 / 3 ETSI EN 301489-1 / 2
R&TTE:	ETSI EN 300220-1 / 2

### Local Regional and Other Approvals:

UK, Ireland	none required
UAE	TRA
Singapore	IDA
Malaysia	ST / CMST
Hong Kong	None required
India	None required
Zensys:	Z-Wave compliant and interoperable

## Zensys:

### Z-Wave device type:

#### 1 Gang Products:

- Basic class: Routing Slave
- Generic class: Multi-Level Switch
- Specific class: Multi-Level Power Switch

#### 2 Gang Products:

- Basic class: Routing Slave
- Generic class: End point 1: Multi-Level channel 1  
End point 2: Multi-Level channel 2
- Specific class: End point 1: Multi-Level Power Switch channel 1  
End point 2: Multi-Level Power Switch channel 2

### Z-Wave command classes:

- All switch, (S)
- Basic, (S/C)
- Indicator, (S)
- Manufacturer specific, (S/C)
- Multi-channel, (S/C)
- Multi-channel association, (S)
- Multi-level switch, (S/C)
- Node Naming & Location, (S)
- Version, (S)

Where: S = Supported, C = controlled

### Associations:

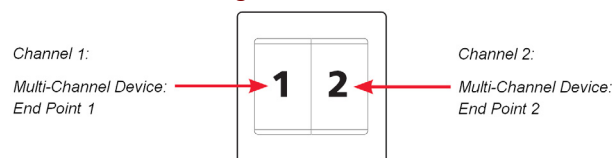
Control modes: Can be configured for group or scene control

No of groups/scenes: One per channel

No of Associations: 5

**Note:** The device can support associations to up to 5 other devices in total. Each channel may be associated to a maximum of 5 end points from the 5 devices.

### For Multi-Channel 2 Gang Devices:



### Inclusion:

To include device into another system press any operation button

### Exclusion:

To exclude device from a system quickly press Dis/Exc button twice in 1s

### Association:

To create associations using another controller press normal operation button/rocker of required channel.

### Disassociation:

To remove associations using another controller press normal operation button/rocker of required channel.

### SUC/SIS updates:

Periodic and routine update will be requested every:

- 24 operations on 1 Gang Products
- 36 operations on 2 Gang Products
- To initiate a manual wake-up and update request press Exc/Dis

**Note:** Only available if SUC/SIS in network.

### Response to indicator request:

On receipt of an indicator request command from another Z-Wave device each channel status indicator will illuminate green for 1s in a continuous sequence for 30s.

### Z-Wave compatibility:

MK astral™ products are tested and certified as Z-Wave® compliant and are designed to work with other manufacturers Z-wave® compliant and interoperable products. Z-Wave® products of other types and applications can be added to the system and will act as repeaters if they support this functionality. This enables the system to grow and expand to other application areas as your needs develop



MK Electric

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