**Dimmer Features**
- Designed to control the DETA range of Fire Rated Dimmable LED Downlights
- Control other makes of LED lamps - the dimmer Mode may need to be changed
- Control other load types, e.g. tungsten halogen, incandescent, low voltage electronic transformers
- Soft Start to increase lamp life, particularly for MV and LV lamps
- EPROM Chip, unit retains dimmer setting when power is switched off
- Overload Protection, built in overload protection which will automatically turn off the lamp until the overload is removed (dimmer needs to be switched off and then on again to reset)
- Push on / Push off control for ease of operation
- Dimmer beeps at both minimum and maximum settings
- 1way and 2 way switching using a push to make switch

**Safety Instructions**
Read these instructions carefully. Incorrect installation may damage the dimmer beyond repair.
- This dimmer switch must be installed in accordance with the current edition of the IEE Wiring Regulations
- Always switch off the electrical supply before commencing installation.
- Do not overload the dimmer – this may damage the dimmer beyond repair
- If the dimmer is to be used to control tungsten halogen lamps, de-rate the dimmer to 75% of the maximum load.
- If using in Leading Edge mode, de-rate the dimmer to 75W max. due to some lamps having a high inrush current
- Use only on an electricity supply of 220-240 volts AC
- When controlling the load from two positions, it is only possible to have one dimmer switch. The other needs to be a push to make or retractive switch.
- Ensure that the mounting box is at least 25mm deep (35mm for Grid).
- Metal mounting boxes must be earthed.

If in doubt, contact a qualified electrician.

**Wiring Instructions – Typical Lighting Circuits**
This dimmer switch is suitable for 1-way or 2-way lighting circuits. There are three terminals per module.

**1 way Circuits**
In 1-way lighting circuits each lamp is controlled by one dimmer switch.
Follow the wiring in Figure 1.
- L live supply, \( \wedge \) load

**2 way Circuits**
2-way lighting circuits have two switches turning the same lamps on and off from two different locations (e.g. at the top and bottom of the stairs), however only one of these can be a dimmer switch, the other must be a push to make or retractive switch. Follow the wiring in Figure 2.
- L live supply, \( \wedge \) load, Sw from 2w switch

**Dimmer Operation**
- For switching on and off, push on/push off the dimmer control
- The dimmer will beep at maximum brightness
- The dimmer will beep at minimum brightness
- **Operation from switch when 2 way switching**
  - Operating the push to make switch will switch on light on or off
  - For dimming, press and hold switch for cycle dimming

**Batch Number**
Please record the batch number printed on the side of the module on the back of the product. The batch number is in the form ##Y## A#.

**Installation Instructions**
1. Switch off the mains supply before commencing the installation.
2. If removing the existing switch, disconnect the wiring from the switch terminals at the rear and take note of the present wiring of the switch and the marking on the terminals.
3. Ensure that any mounting box is free of plaster lumps or projecting screw heads. Most models can be fitted into a box with a minimum depth of 25mm (35mm for grid). These dimmer switches can be installed in boxes with two mounting lugs only. Other mounting lugs need to be removed or bent flat.
4. Terminate the dimmer switch in accordance with the diagrams in the Wiring Instructions section. Take care that no bare wires project out of the terminals. Keep wires together in a terminal if they were together in your old switch.
5. Dimmer switches having a metal front plate must be earthed by means of the earthing point on the dimmer.
6. After connecting the wires screw the dimmer switch gently into the wall box so that the front plate does not distort or crack. Do not trap the wiring between the rear of the dimmer and the back of the wall box.
7. Once installation is complete, switch on the mains supply. When switching on the dimmer for the first time it will go through a set up procedure. The dimmer will beep when the procedure finishes.
8. For installing LED Grid Switch dimmer, refer to the Grid Switch installation instructions
Load Type | Specification
---|---
LED | Power Rating per Module: 5-100W (75W LE Mode) 20-75W 20-100W
Mains Tungsten Halogen | 20-100W
Incandescent and ECO Halogen | 20-100W
LV Transformers | 

Optimising the Performance of Your Dimmer Switch

This dimmer switch is preset for optimum control of Deta LED Dimmable Fire Rated Downlights.

Most dimmable lamps have an optimum performance mode - Leading Edge or Trailing Edge. It is possible to change the dimming mode, this will prevent the lights from flickering. See “Changing the Dimmer Mode” below.

Additionally, the minimum brightness setting of the dimmer can be adjusted to achieve the optimum dimming range for a particular load. See “Compatibility and Loading Advice” below. Also see “Adjusting the Minimum Brightness” below.

You may need to refer to these instructions if you change your lights to a different type at a later date so please keep them for reference.

Programming the Dimmer

To optimise control of the dimming function, the software within this dimmer can be set either to Trailing Edge (TE) or to Leading Edge (LE) mode.

The dimmer switch is factory set to LE mode. Should the lamps specify TE mode, flicker or fail to function as expected, the mode can be easily changed – refer to “changing the dimmer mode”

At initial “power on” and “switch on” the unit will automatically function through a sequence of lighting, dimming and the beep will sound.

The dimmer will remain in the preferred set mode even when the power supply is switched off at the circuit breaker.

To reset the module to factory default conditions:
- With Power Supply ON, switch lamp OFF.
- Push and hold the knob for over 10 seconds.
- Once reset is activated, the unit will beep 2 times as confirmation.

Changing the Dimmer Mode

- Switch on the power supply at the circuit breaker.
- Push the knob switching the lamp ON and turn to minimum – unit beeps.
- Then push and hold the knob for over 3 seconds. The following sequence will initiate: The lamp will turn OFF and automatically ON & OFF. The unit will also BEEP to signify its new mode: One long beep TE mode OR 3 short beeps for LE mode. (release the button after the sequence starts)

Note: changing the mode will lose the minimum brightness setting

Adjusting the Minimum Brightness

- Ensure the lamp module is switched OFF
- Push and hold the control for three seconds, the unit will beep – release the control. The lamp will light and auto dims up to max. level & down to min.
- Adjust the control to the desired minimum brightness.
- Push the knob OFF, this will store the minimum level and exit the program mode.
- When exiting the set up procedure, the lamp will auto dim up to max. level and dim down to off, completing the setting procedure.

Note: failure to turn unit off and complete the process will cause the unit to revert to previous setting. This will happen automatically after 10 seconds of inactivity

Dimmable LED Lamps

The recommended minimum load per gang is 5W. Always choose LEDs that are “dimmable” and for the best performance choose dimmable LEDs from established brands. We cannot guarantee that all LEDs labelled as “dimmable” can actually be dimmed satisfactorily.

Maximum and minimum loads will vary according to make and type of LED. If in doubt, use 2 to 10 lamps per gang (100W max).

The dimming performance of dimmable LEDs may be improved by following the steps outlined above under the heading “Changing the Dimmer Mode”.

Compatibility and Loading Advice

Always use the same brand and wattage of LED lamp on each circuit.

Ideally, when replacing LED lamps, use the same brand and wattage

This Dimmer Switch is suitable for:
- Most dimmable LEDs [see “Dimmable LED Lamps” box]
- Mains voltage incandescent, GLS or candle-shaped bulbs
- GU10 or similar good quality mains halogen bulbs

This Dimmer Switch is not suitable for:
- Fluorescent bulbs and tubes
- Wire-wound or toroidal transformers
- Electric motors
- Non dimmable LEDs

Specifcation

<table>
<thead>
<tr>
<th>Load Type</th>
<th>Power Rating per Module:</th>
<th>Voltage</th>
<th>Compliance</th>
</tr>
</thead>
<tbody>
<tr>
<td>LED</td>
<td>5-100W (75W LE Mode)</td>
<td>220 – 240V ac 50Hz</td>
<td>BS EN 60669-2-1</td>
</tr>
<tr>
<td>Mains Tungsten Halogen</td>
<td>20-75W</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Incandescent and ECO Halogen</td>
<td>20-100W</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LV Transformers</td>
<td>20-100W</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Deta Electrical Company Limited
Kingsway House Laporte Way
Luton Bedfordshire LU4 8RJ UK
Tel.: +44 (0)1582 544 544 Technical Helpline: +44 (0)1582 544 548