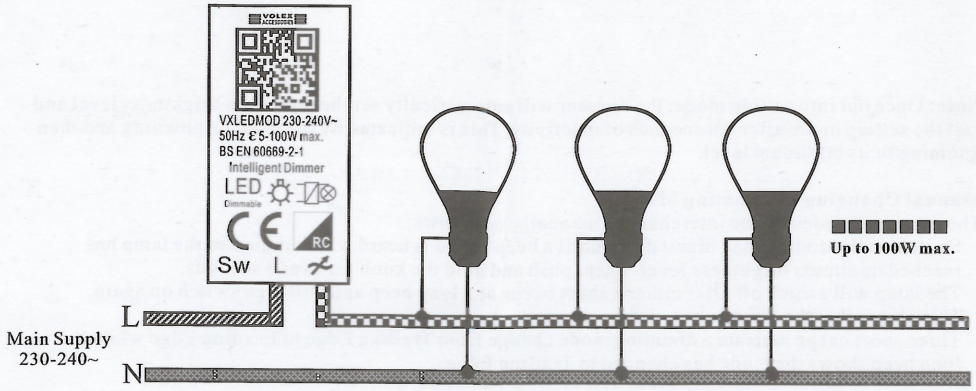

Figure 3 **1-way Switching and Dimming**

2-Way (or Multi-Way) Switching and Dimming
For 2-way (or multi-way) installations, two or more switches are used to control the same lights from two or more different locations. This arrangement is commonly used at the top and bottom of staircases or at the entry and exit doors to a room.

Only one standard plate switch may be replaced with a dimmer switch in a 2-way (or multi-way) installations. Any other existing 2-way switches **MUST** be replaced with retractive or push on/off switches.

In order to dim connected lamps from multiple locations, any number of retractive switches and/or push on/off switches may be installed. See Figure 4 for more details.

To operate the dimming function with a retractive or push on/off switch, push and hold down the switch. The lamp will run through its dimming cycle until it is released. When the desired level is reached, remove the pressure from the switch. A quick push on the switch will turn the lights on or off at that level.

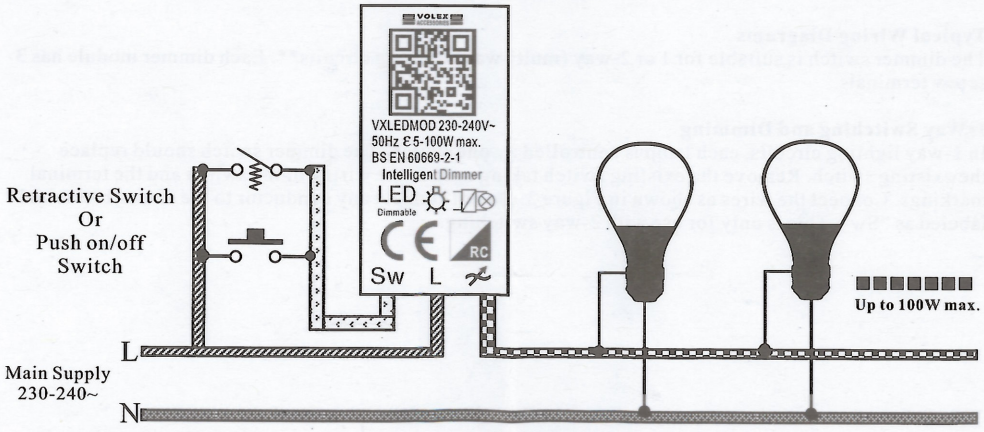

Figure 4 **2-way (or Multi-Way) Switching and Dimming**

ELECTRIUM SALES LIMITED, Commercial Centre, Lakeside Plaza, Walkmill Lane. Bridgtown, Cannock, WS11 0XE.
Telephone: 01543 455010. Facsimile: 01543 455011. Tech help tel 01543 438310. fax 01543 438311.

VOLEX
Wiring accessories

DL23751_B

Installation Instructions

Model: VOLEX VXLEDMOD
Electronic On/Off Auto Detect Intelligent Dimmer Module
Rated Voltage: 230-240Vac
Supply Frequency: 50Hz
Rated Power: 5W-100W*
Neutral Required: No

This dimmer switch complies with the following European Safety and EMC Regulations:
LVD: EN60669-2-1
EMC: EN55015:2006

Product Features
- Suitable for use with capacitive or resistive loads.
- Suitable for control of dimmable LED, dimmable CFL, incandescent, dimmable LV electronic transformers and halogen lamps.
- One or two way switching with ability to dim/brighten light from both switch positions. (See Figure 4 for wiring details).
- Most popular dimmable LEDs are dimmable down to around 5 -10% and up to 100%.
- Recommended minimum load rating of 5W and maximum load rating of 100W.
- User can directly adjust the minimum brightness setting of the dimmer for various lamps connected to the dimmer (See "Operation of Minimum Brightness Settings" below).
- Soft start "on" and soft stop "off", which both help to extend the life of connected lamps.
- Built-in short circuit protection. If a short circuit occurs, the short circuit protection is activated and the dimmer switch beeps for 10 seconds and then switches off.^
- LEDMOD dimmer can run either in Trailing Edge (TE) dimming mode or Leading Edge (LE) dimming mode. The dimmer automatically sets itself to the mode suitable for the lighting loads connected to it. (See "Auto Detection of Suitable Dimming Mode Settings" below)

Operation of Dimmer Knob

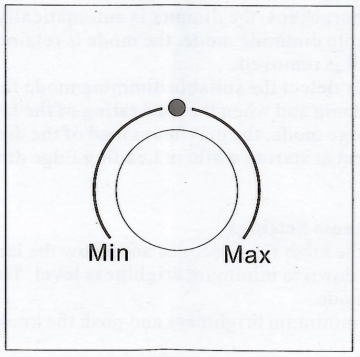

Figure 1: Dimmer Knob

- Push-on/Push-off switch action and a rotary action to dim the light.

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* If the dimmer is running in Leading Edge mode, the maximum load is 75W
^ After a short circuit is detected by the dimmer switch, the installation should be checked by a **competent person** before any attempt is made to switch the dimmer on again.

- Turn clockwise to increase brightness level of lamp. A beep sound will indicate that maximum brightness level has been reached.
- Turn anticlockwise to decrease brightness level of lamp. A beep sound will indicate that minimum brightness level has been reached.

Operation of Multi-Way Retractive Switch (For control of the dimmer from a remote position on a "2 way" wired installation

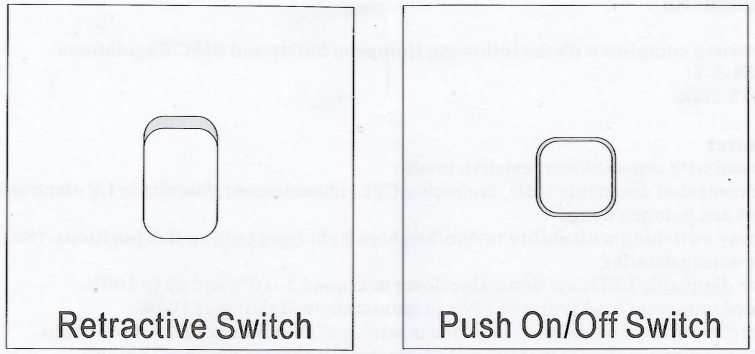

Figure 2: Retractive Switch/Push on/Off Switch

- Push-on/Push-off switch action
- Push and hold the switch down for dimming control. The light will cycle through a brightening and dimming loop until the switch is released.

Auto Detection of Suitable Dimming Mode Settings

At initial power-up of a lamp connected to the dimmer, it automatically detects the most favourable dimming mode and sets itself in the following manner:

- If the lamp brightens to maximum and then switches off after a long beep, the dimmer is automatically set to Trailing Edge mode.
- If the lamp brightens to maximum, switches off and then switches on to maximum brightness before finally switching off after 3 short beeps, the dimmer is automatically set to Leading Edge mode.

Once the dimmer is set to a suitable dimming mode, the mode is retained even if the voltage supplied to the "L" terminal of the dimmer is removed.

Note: The dimmer can accurately detect the suitable dimming mode for a particular lighting load only when connected to one piece of lamp and when the load rating of the lamp is not over 100W. If the dimmer is running in Leading Edge mode, the maximum load of the dimmer should be de-rated by 25% due to the high inrush current at startup while in Leading Edge dimming mode i.e. 75W max for a nominally rated 100W dimmer.

Operation of Minimum Brightness Settings

- From off state, push and hold the knob for 5 seconds and allow the lamp to reach its maximum brightness level and then dim down to minimum brightness level. This takes the dimmer to its minimum brightness setting mode.
- Adjust the knob to the desired minimum brightness and push the knob once to exit the minimum brightness setting mode.
- The lamp will automatically brighten to maximum, dim down to minimum brightness level and then goes off to indicate that the dimmer has exited the program mode.
- Switch on the dimmer to return to normal operation. This will take the lamp to its maximum brightness level.

Note: Once put into setting mode, the dimmer will automatically set the minimum brightness level and exit the setting mode after ten seconds of inactivity. This is indicated by the lamp brightening and then dimming to its minimum level.

Manual Changing of Dimming Modes

The dimming modes can be interchanged manually as follows:

- Switch on the dimmer and dim it down until a beep sound is heard which indicates the lamp has reached minimum brightness level. Then, push and hold the knob for over 3 seconds.
- The lamp will switch off after either 3 short beeps or a long beep and will then switch on again. This shows that the dimming mode has changed.
- Three short beeps indicate a dimming mode change from Trailing Edge to Leading Edge while a long beep shows the mode has changed to Trailing Edge.

Manual Reset of Dimmer to Factory Default Settings

The dimmer can be reset to its factory default settings as follows:

- Switch off the lamp and then, push and hold the dimmer knob for over 10 seconds until 2 beep sounds are heard. This will reset the dimmer. The dimmer will start auto detection of dimming modes once it is switched on again.

Installation

Read the instructions carefully before commencing installation. This product must be installed in accordance with the latest building and IEE wiring regulations. If in any doubt, please consult a **qualified engineer.**

- Switch off at the mains. If unit is to replace an existing product, remove existing product and disconnect the wiring.
- Ensure that the mounting box is free of projecting screw heads. If a 4 lug box has been previously installed, the north and south lugs should be removed or bent back to avoid contact with the module.
- To connect the wiring for 1-way or 2-way circuits, refer to Figure 3 and 4. Ensure terminals are properly tightened and no bare wire is visible.
- Dimmer switches with metal front plate must be earthed by means of the earthing point on the dimmer.
- After connecting the wires, push the unit back into the mounting box ensuring conductors are not trapped between the rear of the dimmer and the back of the mounting box.
- Once installation is complete, switch on the mains supply to operate the dimmer switch.

Typical Wiring Diagrams

The dimmer switch is suitable for 1 or 2-way (multi-way) lighting circuits**. Each dimmer module has 3 screw terminals.

1-Way Switching and Dimming

In 1-way lighting circuits, each lamp is controlled by one switch. The dimmer switch should replace the existing switch. Remove the existing switch taking note of the wiring of the switch and the terminal markings. Connect the wires as shown in Figure 3. Do not connect any conductor to the dimmer terminal labeled as "Sw". This is only for use with 2-way switching.

** **A competent person** is required for installing the dimmer.