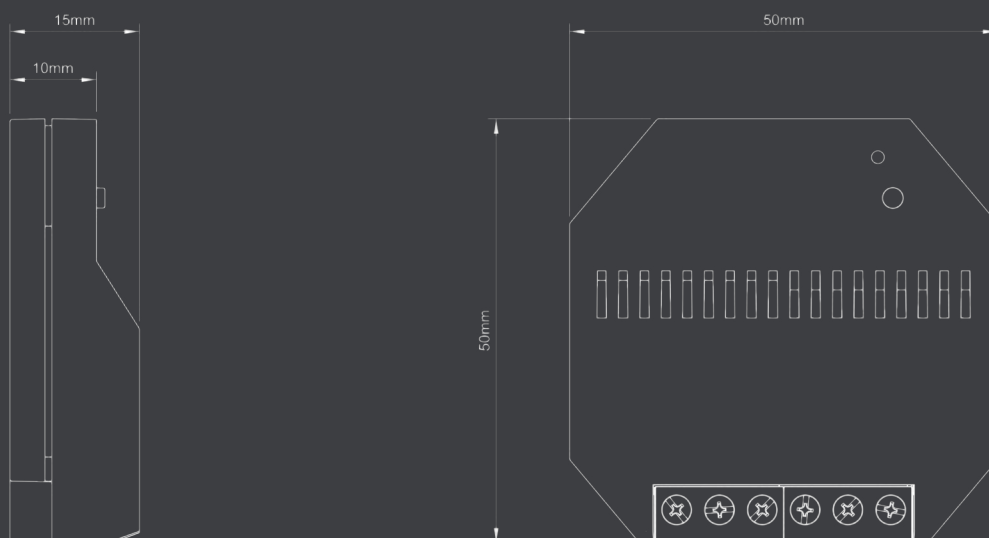


ZDM150

Enkin 150W Zigbee Dimmer Module



Markings & Standard(s)	CE, UKCA, BS EN 60669-2-1
Zigbee Protocol	3.0
Operating Voltage	220-240V AC
Main Frequency	50Hz
Minimum Load	2W LED (2W Incandescent / Halogen)
Maximum Load	150W LED (150W Incandescent / Halogen)
Switch Type	Multi way (retractive switch), (2way up/down retractive switch)
Dimming Protocol	Trailing edge & leading edge phase control
Mounting Box Depth (Min)	35mm
Terminal Capacity	1 x 4mm ² / 1 x 2.5mm ² / 3 x 1.5mm ² / 4 x 1mm ²
Terminal Markings	2 x 'C' (live), '1' x L (load), '1' x for one way push retractive switch, '2' x for 2 way retractive switch
Neutral Required	No
Short Circuit Protection	Yes
Overload/Overcurrent Protection	Yes
Thermal Protection	Yes - Thermal resettable fuse
Soft Start	Yes
Power Failure	Previous state recall
Memory	Yes, non volatile
Min/Max Level Setting	Yes - Following a defined procedure
Driving Mode	Yes - TE & LE mode change following a defined procedure
Product Dimensions	50mm x 49.5mm x 15.1mm
Climate Range	0°C to 40°C, Humidity 0% to 95% non-condensing
Recommended Location	Indoor use only
Maximum Installation Altitude	2000m
IP Rating	IP2XD
Trademarks	Enkin is a registered trademark number: UK00003707694, Date: 07 May 2021



Operating Voltage	240V ac
Nominal Operating Freq.	50 Hz
Dimming Technique	Trailing & Leading Edge Phase Control
Compliance	BS EN 60669-2-1

Load Symbol	Compatible Loads	Max Load	Min Load
	Dimmable LED lighting	150W TE 100W LE	2W
	240V Incandescent & Halogen lamps	150W TE 100W LE	2W
	Low voltage lighting with electronic transformers	150W TE 100W LE	2W

Multi-Gang Switch De-Rating Chart

1 Gang	2 Gang	3 Gang	4 Gang	5 Gang
150W	127W	105W	82W	60W

IMPORTANT NOTE:

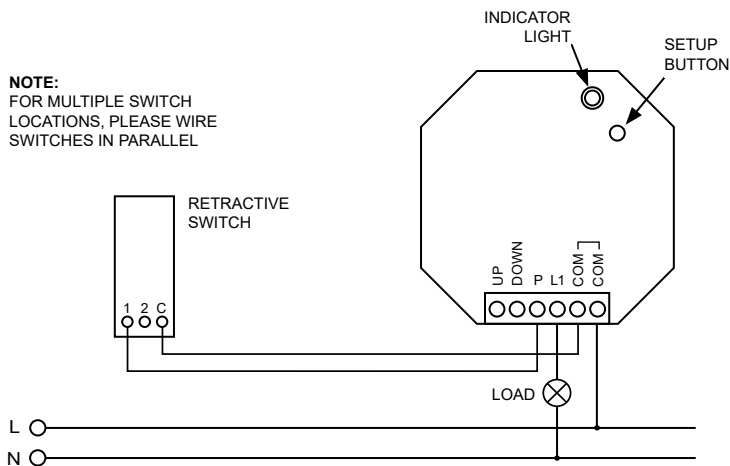
Some driverless products can still operate with a small amount of residual current present, such as LED strip lighting etc, it may be necessary to fit a bypass device to allow this product to dim completely to off.



WIRING EXAMPLES

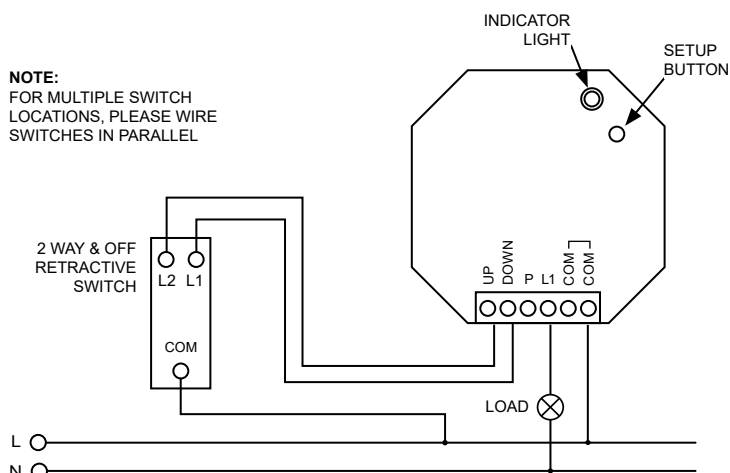
ONE-WAY PUSH RETRACTIVE SWITCH WIRING OPTION

NOTE:
FOR MULTIPLE SWITCH
LOCATIONS, PLEASE WIRE
SWITCHES IN PARALLEL



TWO-WAY & OFF PUSH RETRACTIVE SWITCH WIRING OPTION

NOTE:
FOR MULTIPLE SWITCH
LOCATIONS, PLEASE WIRE
SWITCHES IN PARALLEL



DIMMER SETUP

NOTE: Manual control of the On/Off function and dimming up and down can also be achieved with a connected Retractive Switch, or multiple (parallel) Retractive Switches. Please refer to example circuit diagrams to the right of this text for some connection examples of this option.

A fast click of the retractive switch will turn the lamp (or Load) on and off, holding the switch will alternately dim the lamp up or down, release the switch when desired lamp brightness has been achieved.

The minimum/maximum level and dimming mode can be manually adjusted by following the procedures below.

NOTE: This product is supplied with a minimum level already set, if this does not work well with your situation, please perform a Factory Reset before setting a minimum level to suit your setup.

SETTING THE MINIMUM LEVEL

1. Whilst on, adjust dimmer to your desired minimum brightness.
2. Push the rear setup button 3 times within 2 seconds.
3. The LEDs will step up and down in brightness once to confirm the setting has been saved.

SETTING THE MAXIMUM LEVEL

1. Whilst on, adjust dimmer to your desired maximum brightness.
2. Push the rear setup button 5 times within 3 seconds.
3. The LEDs will step up and down in brightness once to confirm the setting has been saved.

FACTORY RESET FOR MIN/MAX BRIGHTNESS

1. Please note this factory reset will reset all the min and max brightness settings.
2. Whilst on, push the rear setup button 7 times within 5 seconds.
3. The LEDs will step up and down in brightness three times to confirm that the min/max setting has been cleared.

CHANGING THE DIMMING MODE

The default mode of the dimmer is Trailing Edge, but it can be put into Leading Edge if required. Please ensure that you know the correct mode for your lamp.

1. Whilst on, push the rear setup button 9 times within 5 seconds.
2. The LEDs will step up and down in brightness twice to confirm the setting has been changed to Leading Edge mode.

NOTE:

To switch back to Trailing Edge mode, just repeat the process again, the LEDs will step up and down once to show the dimmer is back in Trailing Edge mode.

Blue flashing Indicator Light
Network Pairing Mode



Green flashing Indicator Light
Touchlink Commissioning Mode



Red Indicator Light
Device is in a factory reset state



ZIGBEE SETUP INSTRUCTIONS:

NETWORK PAIRING MODE

1. Remove the device from any previous Zigbee network if it has already been bound to one, otherwise any pairing attempt will fail. Please refer to the section titled "Network Factory Reset Procedure" for factory reset procedure.
2. From your Zigbee controller or Hub interface, choose add lighting device or dimmer device and enter Pairing Mode as instructed by the controller.
3. Double press setup button to activate the network pairing mode (The indicator light will flash blue) Network pairing mode will remain active for 15 minutes, repeat step 2 if this times out before setup has completed.

Note: Depending on your OS, this device may be automatically added to your device list.

4. The blue indicator light will stop flashing and remain lit for 10s when pairing is successful, the device will now appear in your controller's menu and can be controlled through controller or hub interface.

Note: The blue indicator light will remain on for 2 seconds to warn that dimmer has previously been paired to a Zigbee network and that this pairing attempt has failed.

TOUCHLINK BETWEEN ZIGBEE REMOTE AND DEVICE (One device only, no hub required)

Note: Please make sure the device and remote are not part of any existing Zigbee network.

1. Short press setup button 4 times.
2. The indicator light will flash green to show the device is in touchlink commissioning mode. This mode will remain active for 180 seconds before timing out, repeat this step if time-out occurs.
3. Bring the remote or touch panel within 10cm of the dimmer device.
4. Set the remote or touch panel into Touchlink commissioning. (Please refer to the corresponding remote or touch panel manual for the correct procedure for this).
5. The connecting lights will start flashing to indicate the pairing processing. Once paired both the connecting lights and the green indicator light will stop flashing and you can control the lights by the remote.

TOUCHLINK BETWEEN ZIGBEE REMOTES AND DEVICE (Up to 30 remotes, Hub required)

Note: Please make sure the device and remote have already been added to your zigbee network.

1. Short press setup button 4 times.
2. The indicator light will flash green to show the device is in touchlink commissioning mode. This mode will remain active for 180 seconds before timing out, repeat this step if time-out occurs.
3. Bring the remote or touch panel within 10cm of the dimmer device.
4. Set the remote or touch panel into Touchlink commissioning. (Please refer to the corresponding remote or touch panel manual for the correct procedure for this).

NOTE: For Philips Hue Bridge & Amazon echo plus, add remote and device to network first, then Touchlink.

FIND AND BIND MODE

Note: Please make sure the device and remote have already been added to your zigbee network.

1. Press the setup button 6 times and the indicator light will start flash yellow. This mode will remain active for 180 seconds before timing out, repeat this step if time-out occurs.
2. Set the remote or touch panel into find and bind mode, and enable it to find and bind initiator. (Please refer to the corresponding remote or touch panel manual for the correct procedure for this).
3. There shall be some indication on the remote or touch panel that the device has bound successfully.

NETWORK FACTORY RESET PROCEDURE

Press and hold the setup button for over 5 seconds until the indicator shows a red light.

Note: All configuration will be reset after the device is reset or removed from the network. This does not include min/max and dimming mode setting).