## Auto Detect Intelligent Rotary ON/OFF 1-way Switch Universal dimmer

ATE-VRR400EU (smooth turning)



# INSTALLATION INSTRUCTION



#### **IMPORTANT!**

It is illegal for persons other than an appropriately licensed electrical contractors or other persons authorised by legislation to work on the fixed wiring of any electrical installation.

#### **WARNING: ELECTRIC SHOCK HAZARD**

Hazardous voltage maybe present at the output of the dimmer despite setting the dimmer to zero brightness level. Look out and tag the input circuit before accessing the wiring connections. Failure to follow this warning can result in death or serious injury.

## **ELECTRICAL SPECIFICATIONS**

Parameter	Value	
Supply voltage & Frequency	230-240V ~ 50Hz	
Maximum Load	400W @ 240V~	
Dimming Technology R.C.L	Auto Detect Trailing / Leading edge driven control Also, Leading edge dimming mode can be set by user manually.	
Compatible loads for <b>TEauto mode</b>	LED Dimmable	Dimmable LED lighting with compatible Electronic Transformers
	ф	Incandescent lighting, MV Halogen lamps
		LV Halogen Lighting with electronic transformers
Compatible loads for <b>LE mode</b>		LV Halogen Lighting with Iron-core transformers
*Must be manual change to LE mode	M	Small motor loads, ceiling sweep fans
Operating Temperature	0°-45°C	
Operating Humidity	10 - 90% R.H.	
Mounting Centres	82mm EU Pattern Plate	
Safety Compliance	IEC EN 60669-2-1 : 2013	
EMC Compliance	IEC EN 60669-2-1: 2002+A1:2008+A2:2015 Excepting when used in conjunction with electronic load	

#### NOTE:

Operation at elevated temperatures or voltages may cause the thermal protection circuit to operate. If this happen, decrease the connected load to prevent re-occurance.

#### THERMAL OVERLOAD PROTECTION

Build-in thermal protect circuit. Apply a re-settable thermostat component, when module temperature raise achieve 110°C will activate the protection, while temperature cool down approx. 75°C it will become normal operation. If occur frequently, please reduce loading.

#### SHORT CIRCUIT PROTECTION

Build-in short circuit protect, once activate, the dimmer will suspend operation around 5 second after that, it will auto-ON again. If detect remain short circuit or over current, the module will suspend operation until disconnect dimmer power and Push ON dimmer again reset to normal operation. In this case, please check the circuit with electrical technician.

#### **FEATURES:**

- Suitable for 1-way switching.
- Minimum load down to 5W of capacitive or resistive load, such as Dimmable LED Lighting, Incandescent Lighting, MV Halogen / LV Halogen Lighting with electronic transformers.
- Lamps soft-start operation, to extend longer lifetime for the lamp.
- User setting for the minimum dim Level.
- Build-in short circuit protect, designed to ensure the dimmer can survive in case of wiring fault or catastrophic failure of the load.
- Build-in re-settable thermal cut-off to protect the dimmer over normal operation temperature caused by overloads.
- Complies with CE and International safety standards.

#### NORMAL OPERATION

Operation of Dimmer Knob and Switch:



Turn knob right to click ON and increase brightness to maximum level. Turn knob left to decrease brightness to minimum level and until click OFF.





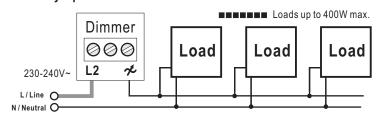
### **INSTALLATION**

Wiring Details:

- 1. Disconnect power. Lock out and tag the relevant circuit at the mains switchboard.
- 2. Remove existing switch from wall.
- 3. Connect the dimmer in accordance with the wiring diagrams.
- 4. Refit switch plate to wall and fit the dimmer knob to the shaft.
- 5. Reconnect power. Push ON and dim with turning knob.

#### WIRING DIAGRAMS

#### **One Way Operation**

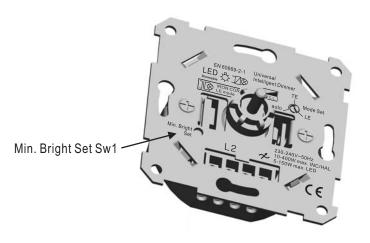


#### NOTE:

The Dimmer must always be connected to the LINE side of the load. Two or more dimmers MUST NOT be connected in parallel or series to control the same load from two different locations.

#### MINIMUM BRIGHT LEVEL SETTING

#### How to set the Minimum bright level:



#### Minimum bright level set:

Remove front plate cover, Turn ON the lamp to max. bright level, then push Sw once. lamp will appear half-bright level, now is entry minimum Brightness setting.

Turn knob to set desire min brightness level, then push Sw for once. lamp will appear at min brightness level then return to normal bright level it's confirmed and save setting.

Note: Setting must be performed within 10 seconds, if no, it will time out and auto exit program without save

#### **COMPATIBLE LOADS**

Compatible loads for <b>TEauto mode</b>		
LED -	Integral Dimmable LED lamps	
	Dimmable LED lighting with compatible Electronic Transformers	
<b>\$</b>	Incandescent lighting, MV Halogen lamps	
	LV Halogen Lighting with Electronic Transformers	
Compatible loads for LE mode *Must be manual change to LE mode		
	LV Halogen Lighting with Iron-core Transformers	
M	Small motor loads, ceiling sweep fans	

When connect with IRON-CORE transformers or MOTOR-LOADS, Only Leading Edge mode (LE) could be applied, the TEauto mode can not be used in this case.

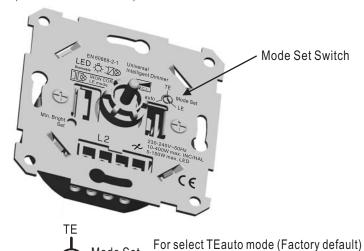
Multiple compatible loads can be used as the total lamp wattage does not exceed the maximum load rating of the dimmer.

Some lamps may exhibit unexpected performance characteristics when cold. Dimming performance should improve after the lamp warms up. Or in case of lamp appears unstable status, it could be changed to LE mode.

#### **MODE SELECT OPERATION**

This dimmer built-in 3 Mode for user select, by using small screw driver select via the "Mode Set Switch". Please OFF power before switching the selector.

- \* TEauto Mode (Factory default), suitable for most LED lamps,
- \* Trailing Edge Mode (TE), for special required for TE lamp only
- \* Leading Edge Mode (LE), for special required for LE lamp only, (SEE COMPATIBLE LOADS)





Mode Set

For select TE mode (for special required\*) \*SEE COMPATIBLE LOADS

\*SEE COMPATIBLE LOADS



For select LE mode (for special required\*) \*SEE COMPATIBLE LOADS

NOTE: