

Radiar AR10

2 channel AC powered 0-10V room controller with inbuilt relay



INSTALLATION AND QUICK START SHEET

WARNING AND GUIDELINES!!!

Read and follow all safety instructions!!

DO NOT INSTALL DAMAGED PRODUCT! This product has been properly packed so that no parts should have been damaged during transit. Inspect to confirm. Any part damaged or broken during or after assembly should be replaced.

WARNING : TURN THE POWER OFF AT THE CIRCUIT BREAKER BEFORE WIRING

WARNING: Risk of Product Damage

- Electrostatic Discharge (ESD): ESD can damage product(s). Personal grounding equipment should be worn during all installation or servicing of the unit
- Do not stretch or use cable sets that are too short or are of insufficient length
- Do not modify the product
- Do not mount near gas or electric heater
- Do not change or alter internal wiring or installation circuitry
- Do not use product for anything other than its intended use

WARNING - Risk of Electric Shock

- Verify that supply voltage is correct by comparing it with the product information
- Make all electrical and grounded connections in accordance with the National Electrical Code (NEC) and any applicable local code requirements
- All wiring connections should be capped with UL approved recognized wire connectors
- All unused wiring must be capped

PRODUCT OVERVIEW

Radiar AR10 is a BLE5.2 controllable, dual-channel 0-10V room controller. The device is powered by 90-277VAC voltage, also has a 16A relay to use it as a room controller. It comes with dual channel 0-10V dimming outputs, 0-10V sensor input, and 12V auxiliary output. The high output ratings within the device makes it suitable to control multiple numbers of light fixtures within a room. The device comes with 150mm external wire antenna for communication.



INSTALLATION INSTRUCTIONS

Mounting Steps- Standard

Install the electrical box as per the local, state & national electrical codes and requirements

- Turn the power OFF at circuit breaker and ensure the power is OFF before wiring
- Use electrical screw driver to remove three ½ inch Knock Out (KO) from the junction box
- Remove the locknut from the Radiar AR10 chase nipple
- Take in the wires and chase nipple of the Radiar AR10 through knock out(KO) hole
- Install the washer and locknut on to the chase nipple. Use a plier to additionally tighten and fix the device firmly with the junction box. (Note: Ensure the antenna faces towards the floor for better communication)
- Take the AC Line and Neutral mains wires through another KO hole of junction box and connect the Line(Black) and Neutral wires(White) of the room controller with the Line and Neutral wires from mains
- Take the Line, Neutral, Dimming wires from the driver in to the J-box through another knockout hole
- To power the driver, connect the Load (Red color) of Radiar AR10 with Input Line of driver and Common Neutral (White color) with input Neutral of driver
- Connect the dimming wires of the driver to the dimming wires of the controller
- Close the electrical box with cover plate
- Restore power to the circuit breaker

Note It can be mounted in Plenum spaces also

Do's	Don'ts
Installation should be performed by a qualified electrician	Don't use outdoors
Installation shall be in accordance with all applicable local and NEC codes	Avoid input voltage exceeding maximum rating
Turn the power OFF at circuit breakers before wiring	Don't disassemble the products
Observe the correct polarity of output terminal	
Place devices as far away as possible from metallic materials	
Devices work best in when there is a clear LOS between them	
When placing devices inside metallic boxes, please ensure the antenna comes out of the boxes	

Specifications	Value	Remarks
Input voltage	90-277VAC	Rated input voltage
Input current	40mA @230VAC	75mA @110VAC
Load voltage	90-277VAC	
Load current	16A@90-277VAC	Electronic ballast
	1800W@120/277VAC	Tungsten
Max load output wattage	4.4kW	@277VAC
Inrush current	120A	
Surge protection	4kV	
Dimming current	100mA	
Dimming range	0-100%	
Sensor input	0-10VDC	Current: 1mA
Operating temperature	-30 to 55°C (-22 to 122°F)	
Dimensions	4.33 x 3.74 x 1.18in 81.79 x 43.43 x 31.75 (mm)	L x W x H
Case temperature	80°C (176°F)	

REQUIRED TOOLS & SUPPLIES



Electrical pliers



Screwdriver



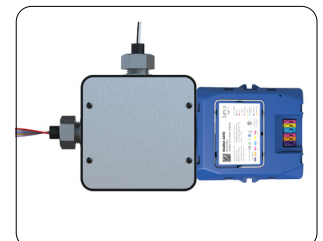
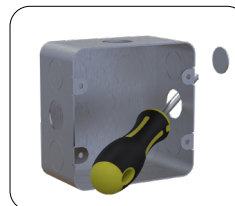
Wire nuts



Electrical box

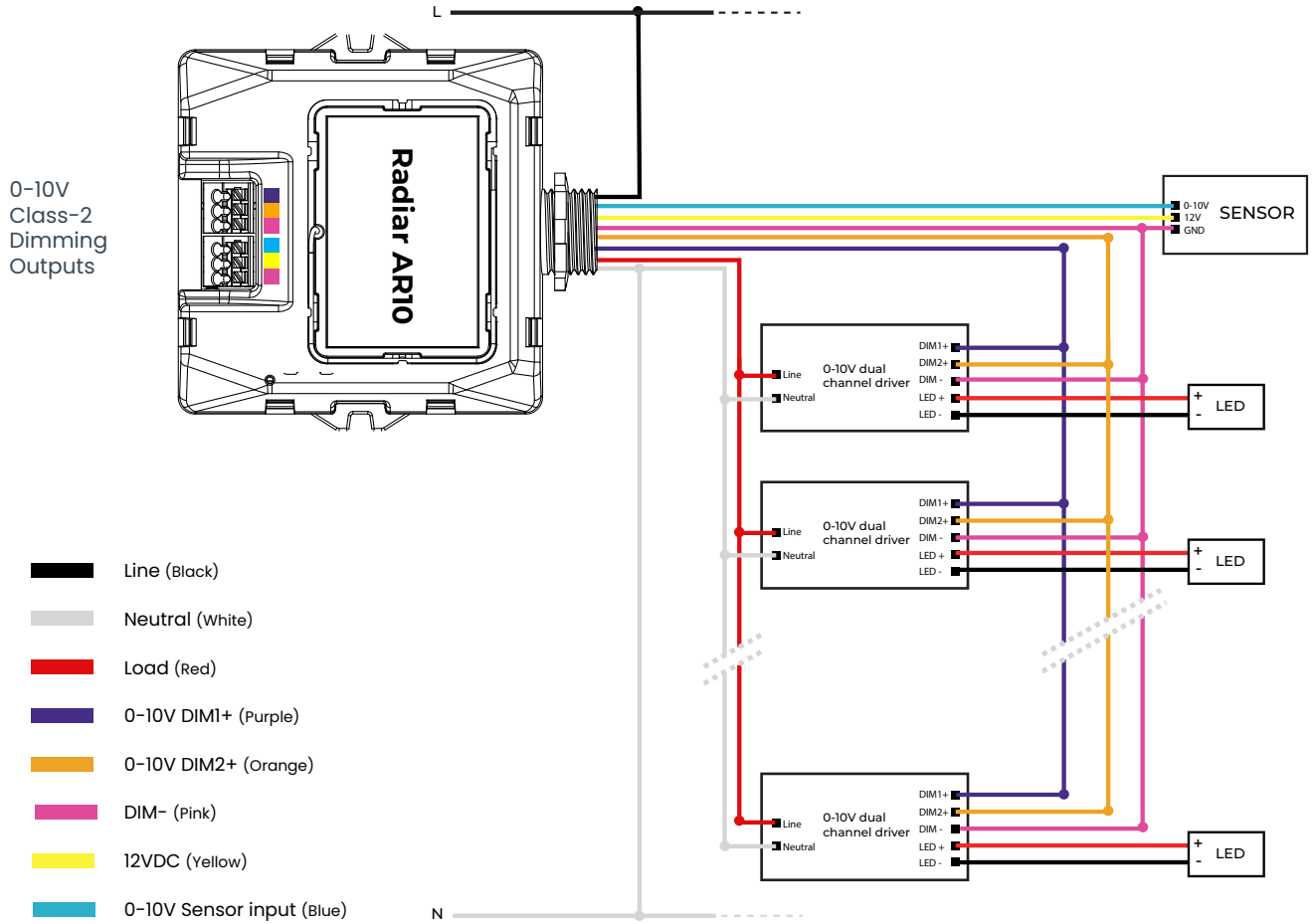


½ inch trade size cable connector

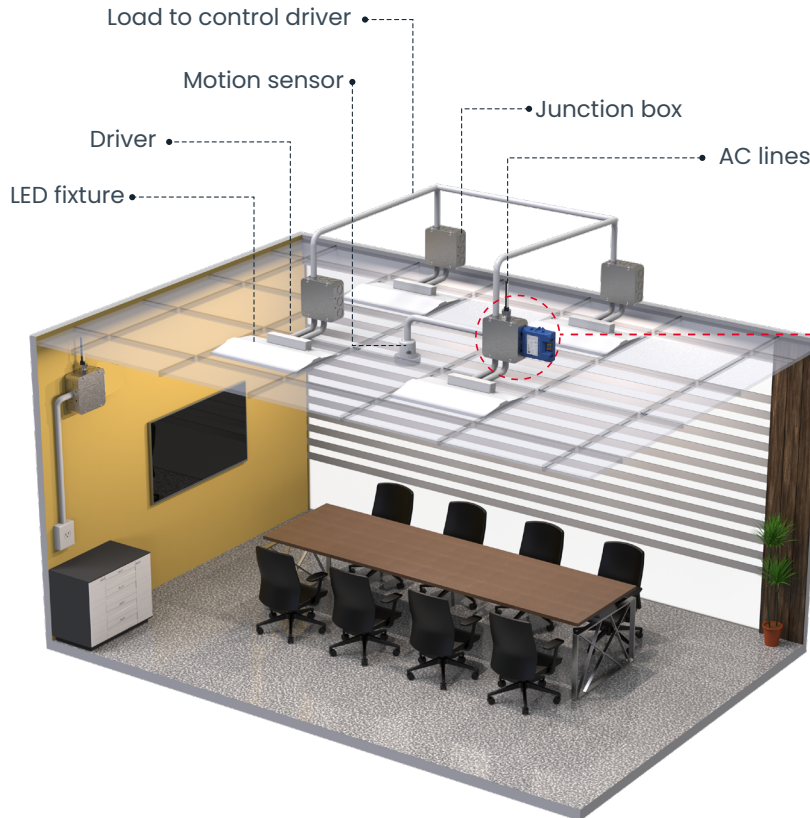


WIRING DIAGRAM

Configuring Radiar AR10 for dimming, tuning and an external sensor control.



APPLICATION



Radiar AR10 as a room controller

RF GUIDELINES

If pairing of devices are getting failed continuously then it may be due to BLE traffic. To reduce the traffic, power OFF other devices in the vicinity and pair again.

TROUBLESHOOTING

When returning from a Power Outage, lights go back to ON state.	This is normal operation. Our device has a fail-safe feature forcing the device to go to 50% or 100% and 0-10V at the full output on the loss of power. The device will return to the previous state or custom state as configured using the Lumos Controls mobile app after the power is restored
There is a delay for the device to turn ON/OFF/DIM	Check whether you have set up a transition time
Lights flickering	<ul style="list-style-type: none">•Check whether connection is as per wiring diagram•Check for loose connections
Lights did not turn ON	<ul style="list-style-type: none">•Check whether circuit breaker has tripped•Check whether fuse has blown•Check for loose connections

Warranty

5-year limited warranty

Please find warranty [terms and conditions](#)

Note: Specifications may change without notice

Actual performance can vary due to end-user environment and application

COMMISSIONING

Once powered up, the device will be ready to be commissioned via the Lumos Controls mobile app, available for free download on [iOS](#) and [Android](#). To begin commissioning, click the '+' icon from the top of the 'Devices' tab. The app allows you to preset certain configurations which will be loaded after the device is added. The pre-configurations made using 'Commissioning Settings' will be sent to the devices being commissioned.

Once commissioned, the device will be displayed in the 'Devices' tab and you can perform individual operations like ON/OFF/dimming on it from this tab.

Note: The 'Output Channel Configuration' will be 'Single Channel' by default. To configure dual channel settings, go to 'Additional Settings' and click 'Output Channel Settings'. Then select 'Controller based color tuning' or 'Driver based color tuning' based on the connected driver.



Please visit [Help center](#) for more details

Lumos Controls Application

Download the 'Lumos Controls' application from Play Store or App Store
OR

Scan the QR codes to download the 'Lumos Controls' application



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