

# RADIAR AR10

## WIRING

### Wire Description

#### Wire Outputs



#### Connector Outputs

#### Wire outputs

Sl.No	Name	Color	Gauge	Rating	Description
1	Line	Black	12AWG (4.0mm <sup>2</sup> )	600V	90-277VAC
2	Common neutral	White	18AWG (0.75mm <sup>2</sup> )	600V	90-277VAC
3	Load	Red	12AWG (4.0mm <sup>2</sup> )	600V	90-277VAC
4	0-10V DIM1+	Purple	20AWG (0.5mm <sup>2</sup> )	600V	0-10VDC/100mA
5	0-10V DIM2+	Orange	20AWG (0.5mm <sup>2</sup> )	600V	0-10VDC/100mA
6	0-10V DIM- /GND	Pink	20AWG (0.5mm <sup>2</sup> )	600V	0-10VDC/GND
7	12VDC	Yellow	20AWG (0.5mm <sup>2</sup> )	600V	12VDC/100mA
8	0-10VDC sensor input	Blue	20AWG (0.5mm <sup>2</sup> )	600V	0-10VDC/2mA

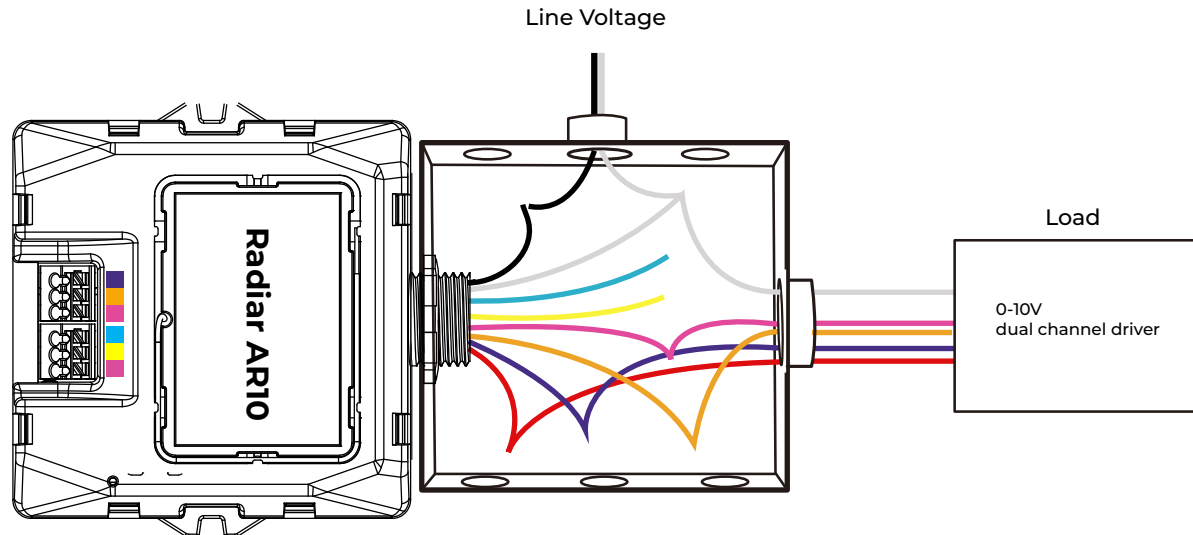
#### Connector outputs









Sl.No	Name	Connector color	Description
1	0-10V DIM1+	Purple	0-10VDC/100mA
2	0-10V DIM2+	Orange	0-10VDC/100mA
3	0-10V DIM- /GND	Pink	0-10VDC/GND
4	0-10VDC sensor input	Blue	0-10VDC/2mA
5	12VDC	Yellow	12VDC/100mA
6	0-10V DIM- /GND	Pink	0-10VDC/GND

# Wiring Types

## Class-1 wiring

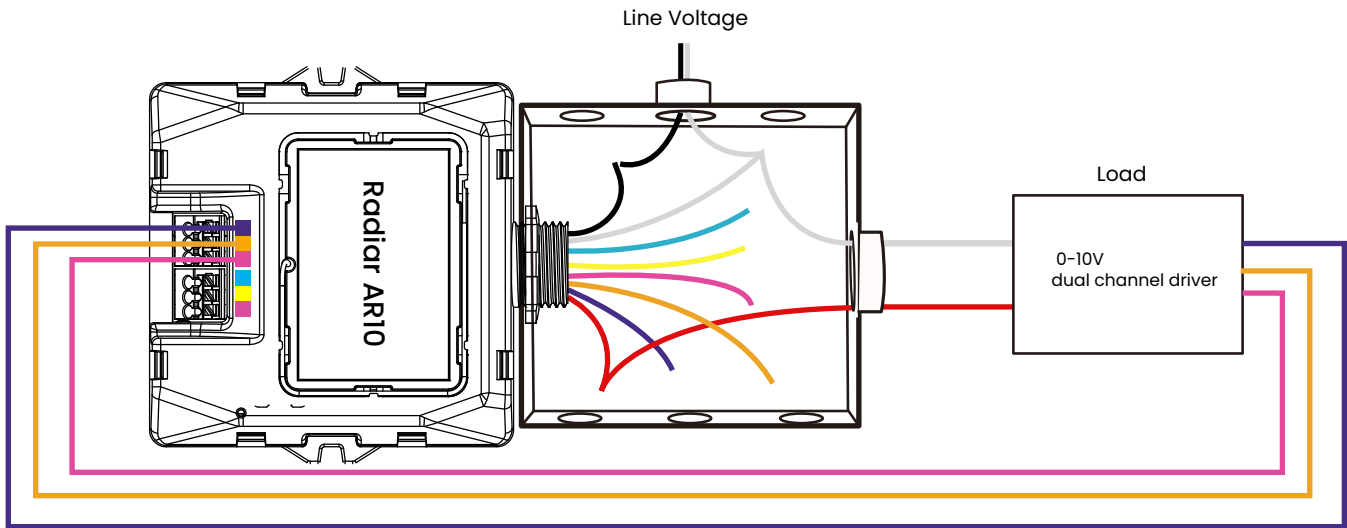
- In Class-1 wiring, the 0-10V low voltage control wires run along with the line voltage wires in a same conduit.
- Class 1 installations require wire with insulation that is rated for the voltage carried (most wiring has 600V rated insulation) and must be installed in conduit or a protective cable assembly.



	Line (Black)		12VDC (Yellow)		0-10V DIM1+ (Purple)
	Neutral (White)		DIM- (Pink)		0-10V Sensor input (Blue)
	Load (Red)		0-10V DIM2+ (Orange)		

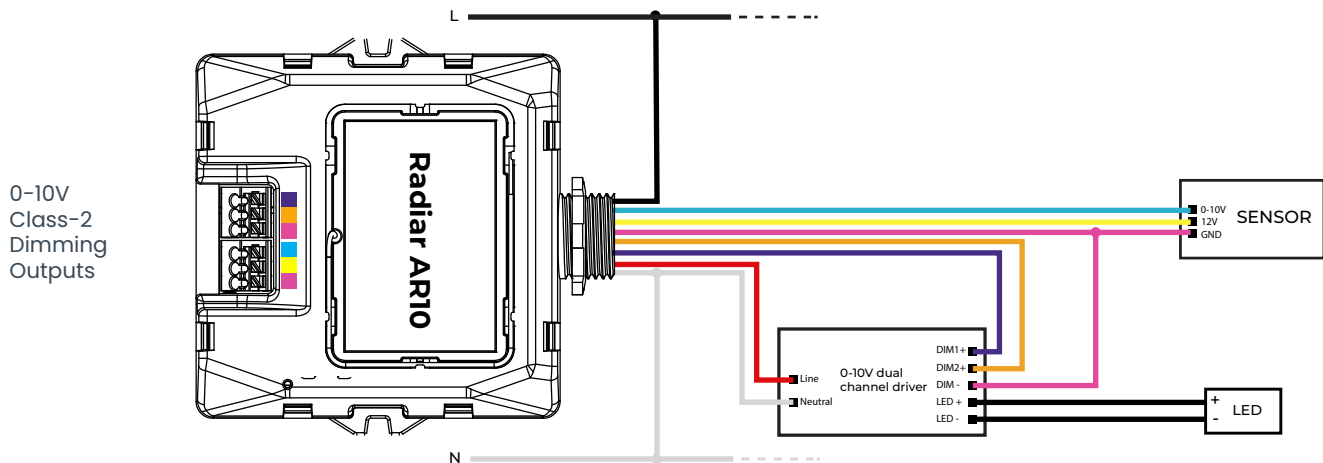
## Class-2 wiring

- In Class-2 wiring, the 0-10V low voltage wires run separately in another conduit
- These circuits do not have high enough voltage or current to present a hazard to personnel and have less stringent installation requirements in regards to protection of the wiring.
- A Class-2 wiring may be installed free within the wall or ceiling without line voltage rated insulation or protection of conduit or a cable assembly

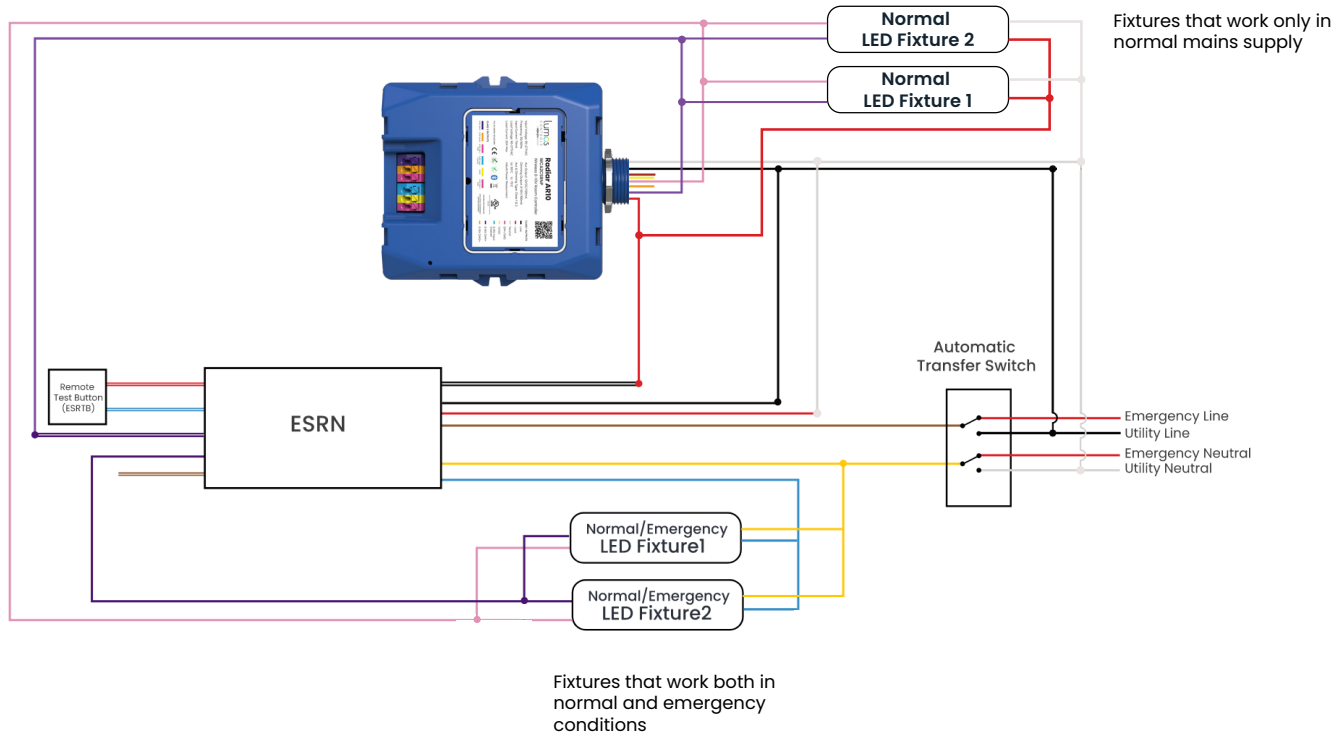


## Wiring Diagram

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



■ Configuring Radiar AR10 for Emergency Lighting Control with ESRN(20Amp SPST)



**Wire Description:  
Radiar AR10**

Line (Black)	12VDC (Yellow)
Neutral (White)	DIM- (Pink)
Load (Red)	0-10V DIM2+ (Orange)
0-10V DIM1+ (Purple)	0-10V Sensor input (Blue)

**Wire Description: ESRN**

Feedback/Dimmer Contacts	Remote Test Input	
NO (White/Violet)	White/Red	Normal Hot (Black)
C (Violet)	White/Blue	Normal Switched Hot (White/Black)
N/C (White/Brown)		Normal Neutral (Red)
		Emergency Neutral (Yellow)
		Emergency Hot (Brown)
		Emergency Hot to Load (Blue)