

# Relay Adapters



## Easy relay integration by Avi-on

Avi-on Relay Fixture Adapters provide one or two channels of 0-10V output for dimming, a relay output for switching, and a general purpose I/O. Non-volatile memory preserves device settings, including groups and schedules. Compact at 56 x 38 x 21mm, Relay Fixture Adapters may be placed inside an LED lighting fixture to enable wireless switching and

dimming, and with the dual channel

### Applications

- Office Lighting
- Warehouse Lighting
- Area Lighting
- Retail Lighting
- Outdoor Lighting
- Signage
- Residential Lighting
- Architectural Lighting

### Integrations

- Sensors
- Scene Controllers
- Dimmers and Switches
- Wi-Fi with RAB (Alexa Compatible)
- Avi-on app and Ecosystem

## Relay Adapter Features

### 0-10V Dimming

All Fixture Adapters provide 0-10V output fixture controls, with dim to off capability.

### Relay Output

Relay versions provide relay control output to couple with a relay power pack to deliver true dim-to-off with standard 0-10V LED drivers.

### Tunable White

All dual channel Fixture Adapters provide a second 0-10V output which may be used for tunable white applications, allowing for adjustment of LED color temperature (CCT) along with dimming.

### On/Off Switching

Fixture Adapter relays can be used to control high voltage relays for circuit-level controls, pumps, motors, etc., as well as building control systems.

### Energy Efficiency with High-end Trim

All Fixture Adapters allow high-end trimming of a 0-10V output, limiting dimming to any level.

### Reduce Flicker with Low-end Trim

All Fixture Adapters provide low-end trim levels via the Avi-on App to limit the minimum 0-10V dimming level. Low-end trim may be used to reduce chance of flicker and drop-out.

**Persistent Memory**

Fixture Adapters have internal non-volatile memory which preserves device settings, including groups and schedules, through power cycles.

**Antennas for Every Application**

Multiple antenna options are available for indoor and outdoor applications without re-certification, including integrated internal antennas and interchangeable external antennas.

**Compact Size**

All Fixture Adapters are 58mm x 38mm (L x W). The 0-10V only devices are 14mm high.

## Parts and Ordering

Select a part number from the table listed below.

Supply Voltage	Channels	Antenna Type	Part Number
11 - 18 VDC	Single	Connector	<b>2115 UFL</b>

*\*Dual channel available for special order*

To order please contact Avi-on sales at  
**(877) AVION-US**, (877) 284-6687 or  
**[prosales@avi-on.com](mailto:prosales@avi-on.com)**  
for information on becoming an Avi-on partner and order details.

Dual channel available on special order.

## Detailed Specifications

### Electrical

11 - 18 VDC Specifications	Min	Max	Unit
Supply Voltage Vin - GND	11	±18	V
Short Circuit Output Current (0-10V Outputs)	-	±200	mA
Operating Current	17	250	mA
Output Voltage 0-10V_OUT	-0.24	+11	V
Storage Temperature	-40	+85	°C
Ambient Operating Temperature	-30	+85	°C
Continuous Output Current (Relay Output; +25C)	-	750	mA
Continuous Output Current (Relay Output; +85C)	-	500	mA
Output Current - Pulsed (Relay Output; 25C)	-	10.8	A
Transistor Voltage Drop (Relay Output; ID=1000mA)	-	1.65	V

### Wire Connections

Signal Name	Wire Color	Description
GND	BLACK	DC Ground. Multiple BLACK wires are all Common Ground and may be used interchangeably.
Vin	RED	DC Power Input
0-10V_OUT[0]	PURPLE	User controllable 0-10VDC. Available in single and dual channel devices.
0-10V_OUT[1]	ORANGE	User controllable 0-10VDC. Available in dual channel devices only.
GND	GRAY	DC Ground. Multiple BLACK wires are all Common Ground and may be used interchangeably.
Relay_Out	WHITE	Relay Control Voltage Output. Available in Relay Fixture Adapters only.

### Case Dimensions (Excluding Wires)

Part	Length (mm)	Width (mm)	Height (mm)
All	58	38	21

### Wire Dimensions

Part	Length (mm outside of case)
All	150

### Certifications

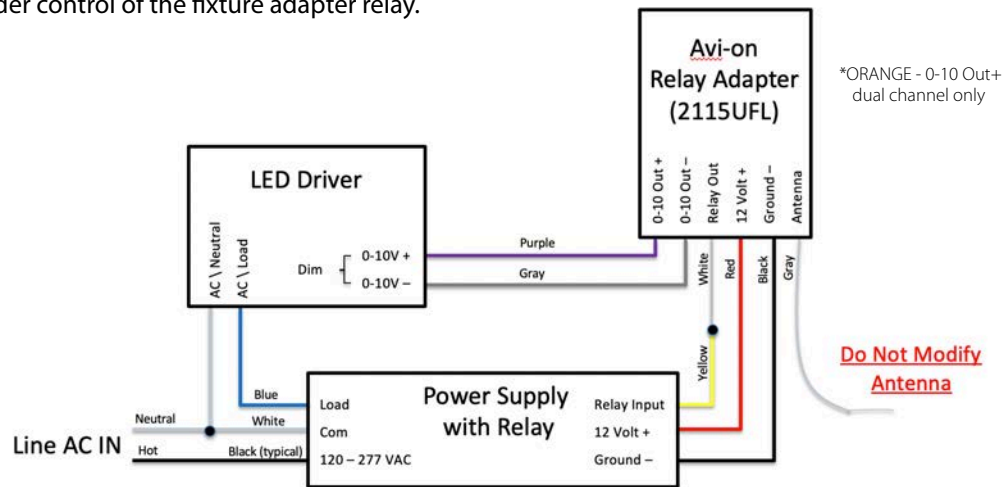
Regulatory	Description
USA*	FCC: 2AFZI-AV1010 15.207; 15.247(d), (a)(2), (b)(3), (e); 15.203; 15.209/205
EU	E: 0700 Model: AV1010 RoHS (2011/65/EU)
Canada	IC: 20544-AV1010 RSS-247: 8.8, 5.5, 5.2(1)(2), 5.4(4) RSS-Gen
BQB	DID: D031801 Qualified Design ID: 86303

\*UL not required, Fixture Adapters are low voltage DC-power devices.

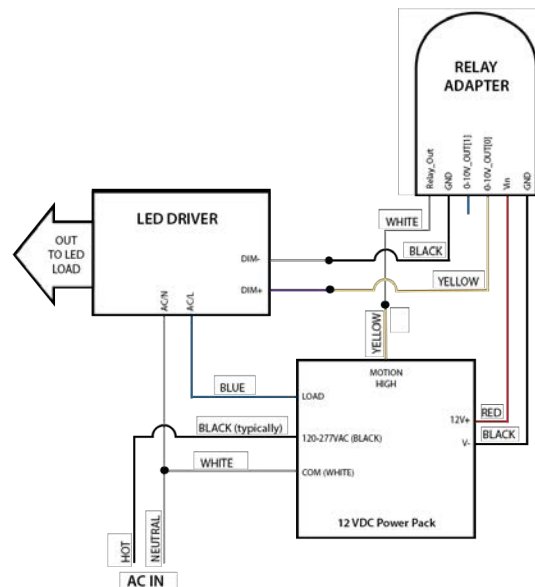
## Product Diagram

### Avi-on Relay Fixture Adapter for LED Drivers without Dim-to-off

For LED drivers with 0-10V dimming, but without dim-to-off capability, an Avi-on Relay Fixture Adapter may be used to control dimming and on/off. A 12 VDC power pack is used to power the fixture adapter and switch the AC load line to the LED driver under control of the fixture adapter relay.



**Figure 1. New Relay Fixture Adapter for LED Drivers**



**Figure 2. OLD Relay Fixture Adapter for LED Drivers**



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