

# Internal Fixture Adapters



## Easy fixture integrated controls by Avion

Avion's Internal Fixture Adapters provide single or dual channel 0-10V controls for dimming, zero-cross switched AC power, energy monitoring, and sensor input (sensors coming soon). Non-volatile memory preserves device settings, including groups and schedules. Compact at 153 x 35 x 25mm, the Internal Relay Fixture Adapter is placed inside an LED lighting fixture to enable wireless control and energy monitoring.

### Benefits

- Single integrated unit for all fixture control components
- Push connector terminals for easy installation
- Energy monitoring to qualify for the highest utility rebate levels and lifetime visibility to fixture health
- Flexible antenna options for indoor or outdoor applications
- Connector for Avion motion/ALS sensor (coming soon)
- UL Listed

## Adapter Features

### 0-10V Dimming

High capacity current sinking 0-10V output fixture controls with dim to off capability.

### Switched AC Power Output

5A Switched AC output for non dim to off LED drivers. Lighting rated high cycle relay with zero cross triggering.

### Tunable White

The IFA includes two 0-10V outputs that support tunable white applications allowing for adjustment of LED color temperature (CCT) along with dimming.

### Energy Monitoring

The IFA is equipped with a built-in energy monitoring circuitry providing real-time fixture energy consumption and health monitoring information. Qualifies for top tier rebates in all jurisdictions and meets the upcoming DLC 4.0 requirements for measured energy data capability. (Requires Avion cloud data collection service).

### Push Connectors

Easy and quick installation with push in connectors for AC power, LED driver and control lines. Separate common/ground connections for each component eliminates T connections.

### Persistent Memory

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

### Compact Size

Internal Relay fixture adapters are a compact size (153 X 35 X 25) for easy integration into fixtures.

### Sensor Ready

Includes connector for Avion motion and ALS sensors (Sensors coming soon) for low cost Sensor per fixture applications, while still allowing flexible network configuration of sensors to fixture zones.



Network Lighting Controls  
Qualified Products List

## Parts and Ordering

Select a part number from the table listed below.

Supply Voltage	Channels	Relay	Part Number
120 - 277 VAC	Single	5 Amp	<b>AVI-IFAC-5A</b>

## Detailed Specifications

### Electrical

Specifications	Min	Max	Unit
Supply Voltage	110	277	VAC
Operating Current Consumption (110 VAC / 277 VAC)	19 / 13	124 / 72	mA
Output Voltage 0-10V_OUT	0.0	10.0	V
Output Current 0-10V_OUT	0.0	25.0	mA
Storage Temperature	-40	+85	°C
Ambient Operating Temperature	-30	+80	°C
Relay Current (Electronic Ballast/LED Driver)	-	5.0	A

### High Voltage Terminal Connections (Isolated)

Signal Name	Terminal Color	Description
DRIVER LINE	ORANGE	AC 120-277VAC
DRIVER NEUTRAL	ORANGE	AC Neutral/Common
AC NEUTRAL	ORANGE	AC Neutral/Common
AC LINE IN	ORANGE	Relay Switched AC (output)
GROUND	YELLOW w/GREEN STRIPE	Earth Ground

### Low Voltage Terminal Connections (Isolated)

Signal Name	Terminal Color	Description
CH1+ (DIM)	GRAY	Dimming 0-10VDC.
CH1- (DIM)	GRAY	Dimming Negative
CH2+ (CCT)	GRAY	CCT 0-10VDC
CH2- (CCT)	GRAY	CCT Negative

### Case Dimensions (Excluding Wires)

Part	Length (mm)	Width (mm)	Height (mm)
All	153	35	25

### Certifications

Regulatory	Description
USA	FCC: 2AFZI-AV1010B
EU	E: 0700 Model: AV1010-B
Canada	IC: 20544-AV1010B
BQB	DID: D031801 Qualified Design ID: 86303
UL	UL 60730-1

## Product Diagrams

### Internal Relay Adapter

For LED lighting fixtures to enable wireless switching and dimming.

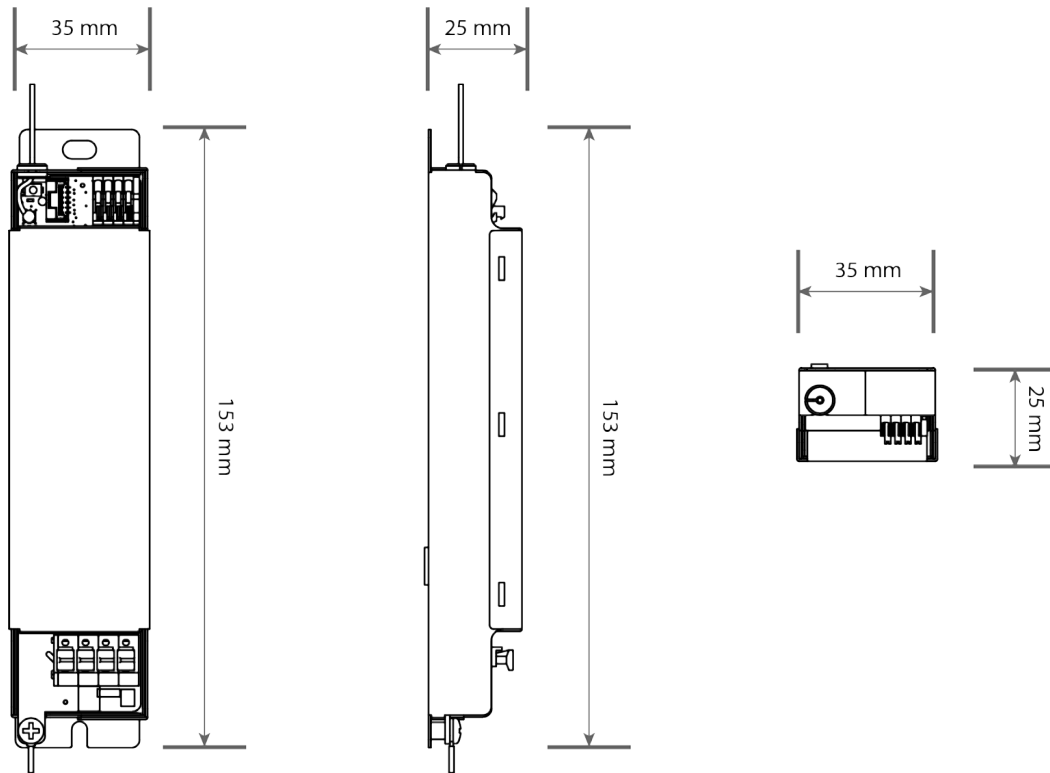


Figure 1. Internal Relay Adapter Dimensions



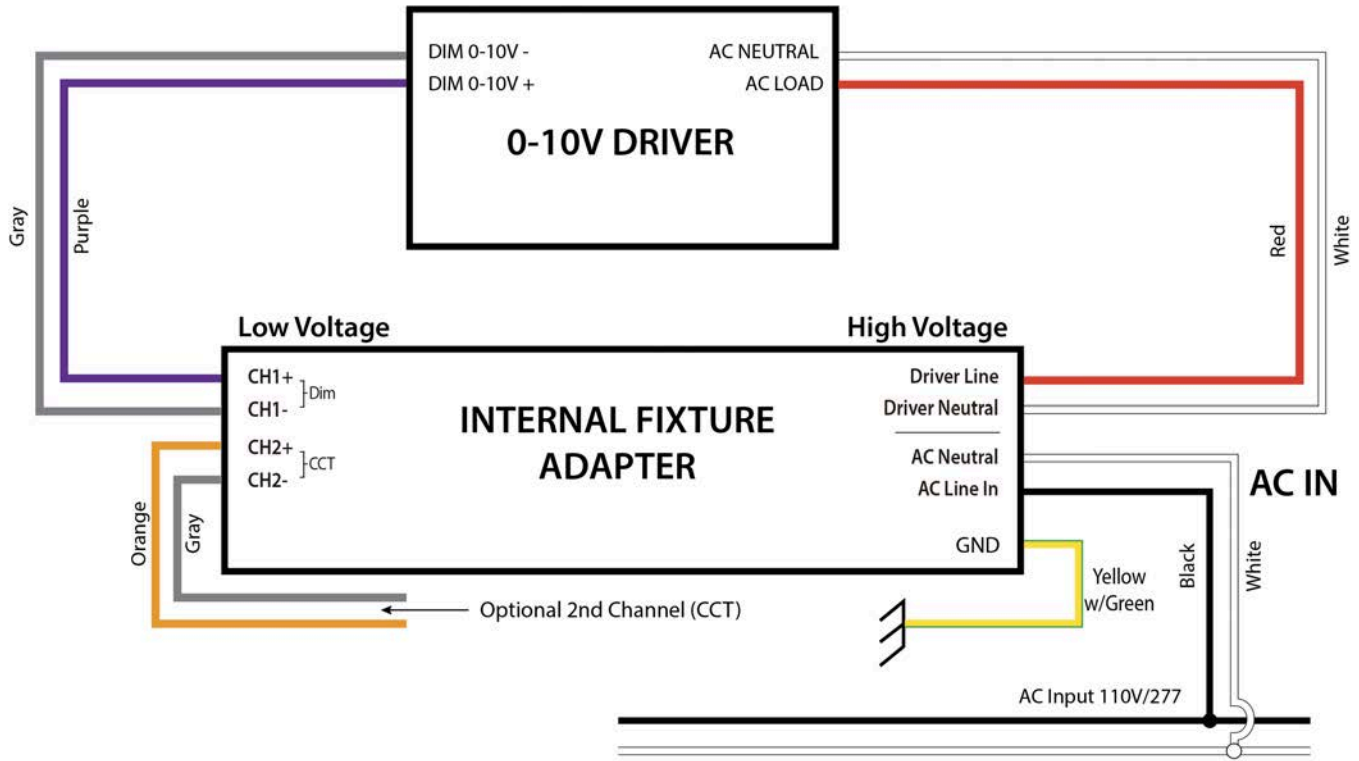


Figure 2. Wiring Diagram



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