

Specification Data	
Job Name	
Type	
Catalog #	
Comments	



## PRODUCT OVERVIEW

The DIM10-220(F) provides real-time control with power monitoring to help meet California Title 24 and other energy regulations. It also includes a 24VDC sensor input and power supply to connect a sensor into the SimplySnap wireless lighting solution. It is designed for retrofit applications or for use with new fixtures that do not have room for integrated controls.

## KEY FEATURES:

- Available with internal and external antenna options (Antenna not included)
- Supports a variety of fixture designs and mounting options
- IP65 rated for indoor and outdoor applications
- Power Monitoring
- Class 1/2 0-10V Dimming Control
- True On/Off functionality via switched relay
- Self-healing SNAP Mesh Networking
- Supports a wide range of LED drivers
- Supports 24VDC sensors (consult sales for list)
- Secure, over-the-air upgrades to support future enhancements
- DLC Certification for both Indoor and Outdoor



Product Number	Description
DIM10-220	Bolt-on controller with external antenna connector
DIM10-220-F	Bolt-on controller with internal antenna

## SPECIFICATIONS:

Dimensions	6.1" L x 2.1" W x 1.6" H (See Mechanical Datasheet for Engineering dimensions)
Mounting	Conduit Knock-Out, Hanging Kit, or in Fixture
Input Power <sup>1</sup>	110-277VAC, 50/60Hz
Load Rating <sup>1</sup>	5A @ 120/277VAC (+/- 10%)
Surge Rating	6kV
Operating Environment	-40°C to +70°C 10% to 95% RH, non-condensing
Enclosure Rating	IP65
Wiring	15" wires attached (+/- 1")
Dimming Output	0-10V, Class 1/2, 30mA
Radio	SNAP 2.4GHz; 802.15.4 +20 dBm Transmit Power -103 dBm Receive Sensitivity
Senor Input	0 - 24VDC
Sensor Power Supply	24VDC @ 20mA
Power Monitoring <sup>2</sup>	2% accuracy
Power Readings	Voltage and Watts
Certifications	cULus, FCC/IC, RoHS
Warranty	5 Years, <a href="#">Warranty Terms</a>

### Footnotes:

1. Phase to Phase power is supported, however the controller only switches one phase.
2. 2% accuracy down to 100 Watts

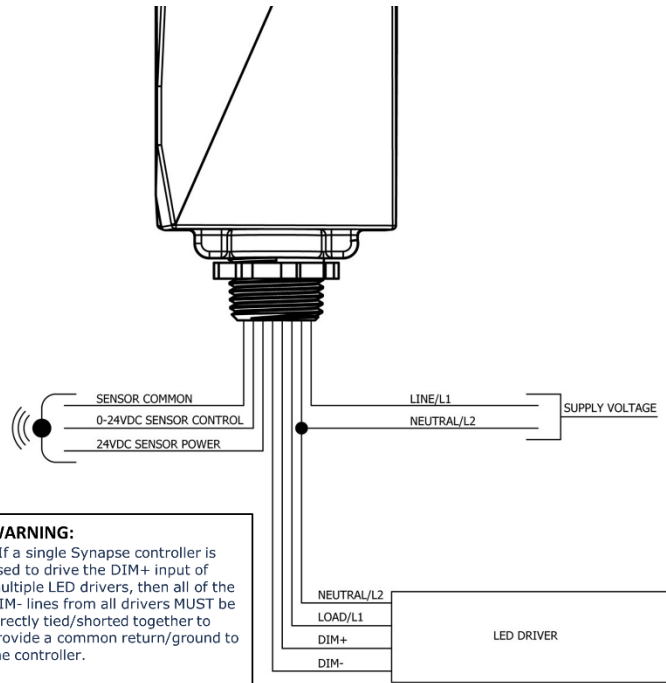
# DIM10-220(F) WIRING INFORMATION

CLASS 1	
LINE/L1	BLACK
NEUTRAL/L2	WHITE
LOAD/L1	RED

CLASS 1 or 2	
0-10V DIM+	VIOLET
0-10V DIM-	PINK

CLASS 2	
SENSOR IN	ORANGE
SENSOR PWR (24VDC)	BROWN
SENSOR COMMON	ORANGE/WHITE

**Note:** Phase to Phase power is supported, however the controller only switches one phase.



Note: External Surge Protector is not provided, but highly recommended 10KV or

**WARNING:**

- If a single Synapse controller is used to drive the DIM+ input of multiple LED drivers, then all of the DIM- lines from all drivers MUST be directly tied/shorted together to provide a common return/ground to the controller.
- Synapse will not warranty or be liable for designs with any other electronic means of coupling DIM- lines from multiple drivers.

## STATUS LEDS

LED	COLOR	DESCRIPTION
RELAY	ORANGE	Relay is closed
RELAY	OFF	Relay is open
NETWORK	RED	No Network Found (Communication Lost)
NETWORK	BLUE	Network Found, Controller Not Configured (Device not yet added to SimplySnap)
NETWORK	GREEN	Network Found, Controller Configured (Normal Operation)

## ACCESSORIES (For use with DIM10-220 with external antenna connector)

ANTENNA PART NUMBER	DESCRIPTION
ANT-ORS-5.1	Stubby Right Angle Outdoor, -5dBi gain
ANT-OSS-5.1	Stubby Straight Outdoor, -5dBi gain
ANT-ORB-1.5-1	Right Angle Outdoor, 1.5dBi gain
ANT-OSB-1.5-1	Straight Outdoor, 1.5dBi gain

HANGING KIT PART NUMBER	DESCRIPTION
KIT-HP02-01	Hanging Kit, Aircraft cable, Coax cable, 1.5'
KIT-HP20-01	Hanging Kit, Aircraft cable, Coax cable, 20'
KIT-HP30-02	Hanging Kit, Aircraft cable, Coax cable, 30'
KIT-HP50-03	Hanging Kit, Aircraft cable, Coax cable, 50'

Patented – Virtual marking at <https://www.synapsewireless.com/about/patents>