

## KTSL-FC5-12V-IM INTEGRATED FIXTURE CONTROLLER

### DESCRIPTION

Bluetooth mesh wireless low voltage individual fixture controller for SmartLoop system.

### APPLICATION

Ideal for small- to medium-size systems, such as schools and offices. Can be integrated into fixtures that have a 0-10V, dim-to-off driver, with 12V auxiliary power.



### PRODUCT FEATURES

- Small form factor for unobtrusive installation and sleek aesthetic
- 0-10V control wires for electrical integration with most commercially available fixtures
- 12VDC input (use driver with 12V aux power)
- Installs via easy snap-in to fixture's premade mounting hole
- Driver should be dim-to-off, no relay control on controller
- Commissioned via SmartLoop mobile app for iPhone
- Controlled via SmartLoop mobile app, keypad, and sensors
- Utilizes Bluetooth mesh technology for reliable and secure wireless communication
- Power outage recovery defaults to automatic on state
- Suitable for dry and damp locations
- Can be grouped together with other SmartLoop devices to share sensor motion detection

### ELECTRICAL SPECIFICATIONS

|                           |               |
|---------------------------|---------------|
| Input Voltage             | 12VDC         |
| Power Consumption         | 0.3W          |
| RF Transmit Power         | 10.5dBm       |
| Max 0-10V Sinking Current | 10mA          |
| Wireless Frequency        | 2.4GHz        |
| Wireless Range (Open Air) | 100ft         |
| Wireless Protocol         | Bluetooth 5.0 |

### ENVIRONMENTAL SPECIFICATIONS

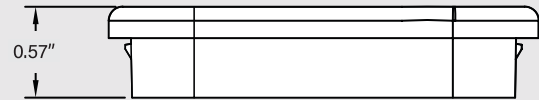
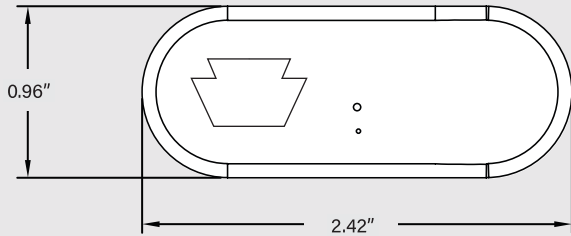
|                          |                                     |
|--------------------------|-------------------------------------|
| Operating Temperature    | -30°C/-22°F to 55°C/131°F           |
| Storage Temperature      | -30°C/-22°F to 85°C/185°F           |
| Humidity                 | 5-95%                               |
| Lifetime Rating          | >100,000 hrs                        |
| Moisture and Dust Rating | Suitable for dry and damp locations |

### SAFETY AND EMC COMPLIANCE

|        |                |
|--------|----------------|
| UL/cUL | UL8750, UL1376 |
| FCC    | Part 15.247    |

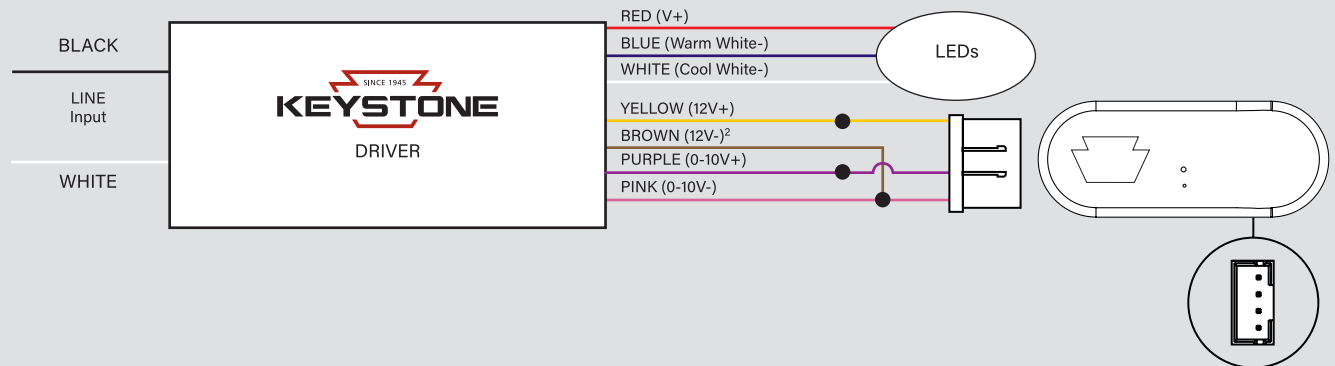
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### PHYSICAL SPECIFICATIONS



### WIRING SPECIFICATIONS

KTSL-FC5-12V-IM Fixture Controller<sup>1</sup>



<sup>1</sup>Controller itself does not have loose leads. Wiring diagram shown as controller being used with wiring harness accessory KTSL-FC5-WH-23, which includes preinstalled connector to plug into controller.  
<sup>2</sup>Brown wire may not be present on some Keystone LED drivers. If no brown wire, the 12V- is shared through the pink 0-10V- connection. For more information, please contact Keystone Technologies.

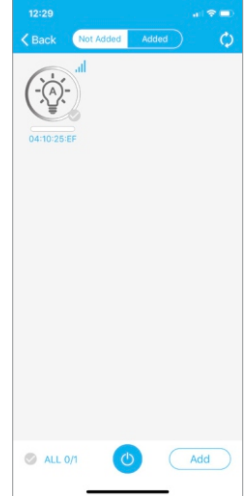


## KTSL-FC5-12V-IM

### INTEGRATED FIXTURE CONTROLLER

#### COMMISSIONING

1. Search for 'SmartLoop' on the app store for iPhone (iOS 8.0 or later, and Bluetooth 4.0 or later).
2. With controllers installed and lights powered on, press + or Click to Add. The app will begin searching for available lights.
3. Check  each light to be commissioned to the region.
4. Press Add to confirm selections. The selected lights will now appear on the Lights page.
5. For further system commissioning, see User Manual at [www.keystonetech.com](http://www.keystonetech.com).



#### FACTORY RESET

Decommissioning can be done by deleting a controller from the region, a power reset sequence, or by using the reset button for certain models.

##### In the app:

The phone/tablet must be connected to the device through the mesh network in order for the controller to be factory reset. Otherwise, the light will simply be removed from the region in the app, and the controller will need to be factory reset using one of the other methods below.

1. Go to the Lights page.
2. Press Select and check  the desired lights to decommission.
3. Press Delete and confirm.

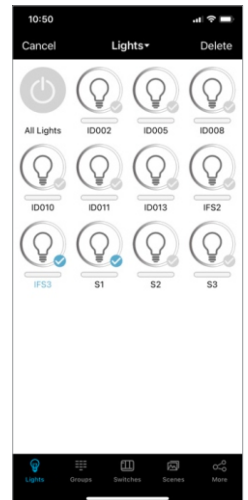
##### Power cycle reset sequence:

If a controller is assigned to another region, it will not appear when searching for new fixtures. Perform the below power cycle sequence to factory reset the controller.

1. Power on for 1 second, then off for 10 seconds.
2. Power on for 1 second, then off for 10 seconds.
3. Power on for 1 second, then off for 10 seconds.
4. Power on for 10 seconds, then off for 10 seconds.
5. Power on for 10 seconds, then off for 10 seconds.
6. Turn the light back on. The device should now be decommissioned and ready to add to a region.

##### Reset button:

While installed in a powered lamp, press and hold reset button for 3 seconds to initiate a factory reset.





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## INTEGRATED FIXTURE CONTROLLER

### ORDERING INFORMATION

| ORDER CODE      | PACK QTY. | UPC          | EASY CODE |
|-----------------|-----------|--------------|-----------|
| KTSL-FC5-12V-IM | 200       | 843654176314 | UBB-00    |

### CATALOG NUMBER BREAKDOWN

# KTSL-FC5-12V-IM

1

2

3

4

5

- 1 Keystone Technologies SmartLoop
- 2 Fixture Controller
- 3 Design Style 5
- 4 Low Voltage
- 5 Integrated Mount



## **FCC Statement:**

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

## **RF Exposure**

This equipment must be installed and operated in accordance with provided instructions and the antenna(s) used for this transmitter must be installed to provide a separation distance of at least 20 cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter. End-users and installers must be provided with antenna installation instructions and transmitter operating conditions for satisfying RF exposure compliance.