

## JLS-LLE-FA102-W SERIES

**JAYKAL**

PROJECT NAME:

**JAYKAL LED SOLUTIONS, INC.**

[www.jaykal.net](http://www.jaykal.net)

PROJECT NOTES:

21499 Baltimore Ave.

Georgetown, DE 19947

(P) 302-295-0015

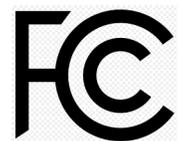
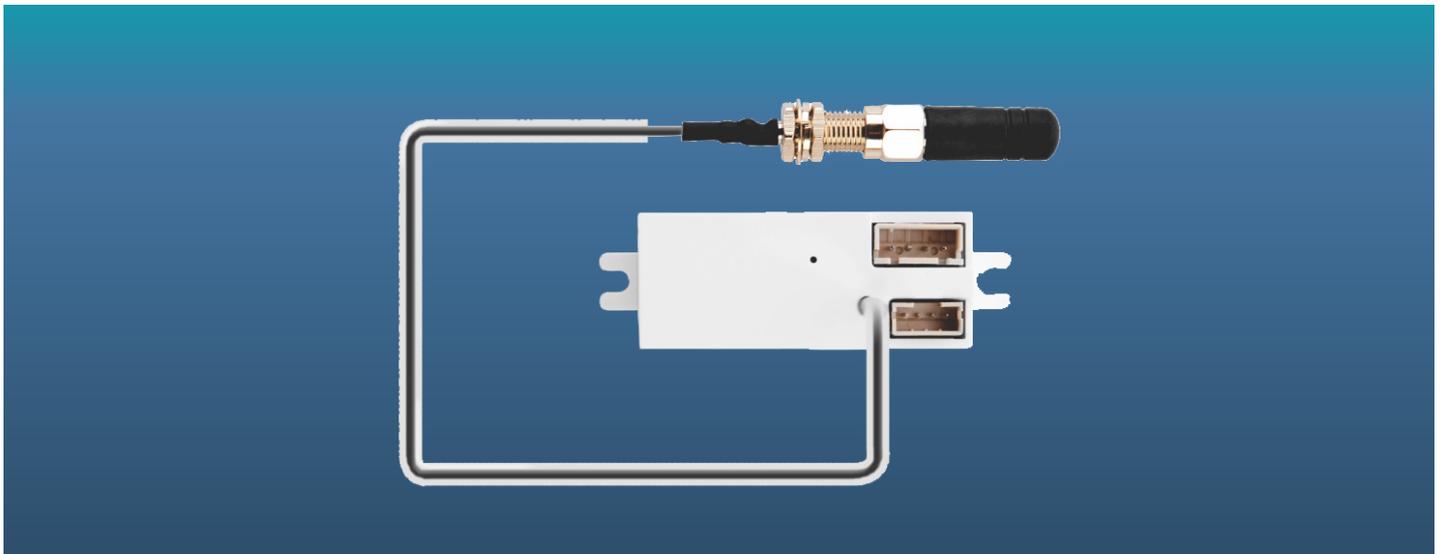
(F) 302-295-0016

### PRODUCT DESCRIPTION

JLS-LLE-FA102-W fixture controllers are designed to increase the Bluetooth signal in a networked lighting control system, especially for outdoor applications. They feature an external long-range antenna that extends wireless coverage for outdoor motion detection linkage. Sensors are not needed if it is used as a Bluetooth node.

### FEATURES

- 12VDC input
- Integrated Bluetooth module
- Includes connection port for long-range antenna with up to 1640ft range
- Bluetooth long-range transmission range (TX1 antenna included)
- Designed to integrate into luminaires for Luminaire Level Lighting Control (LLLC)
- Sensor-ready attachment port for LumaLinx Linx Sensors (CC cable required)
- 0-10V output
- IP66 Rated



Revised 11/19/24

*Specifications are typical values and may change without notification*

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### REQUIREMENTS

- Dim to OFF driver with 12VDC output
- Requires both a CC (sensor) and FC (fixture) cables (not included)

### SPECIFICATIONS TABLE

#### JLS-LLE-FA102-W SERIES

INPUT VOLTAGE	12VDC
POWER SUPPLY SOURCE	150mA Min
DIMMING	Class 2, 0-10V DC 10mA Max
SINKING CURRENT	10mA Max
BLUETOOTH TRANSMIT	JLS-LLE-TX1: 860ft Max / JLS-LLE-TX5: 1640ft Max
RADIO FREQUENCY	2.4GHz ± 75MHz
BLUETOOTH VERSION	5.0
HOUSING MATERIAL	UL 94-V0
DETECTION RANGE	40-80ft
MOUNTING HEIGHT	20-40ft
INDOOR/OUTDOOR USE	Indoor/Outdoor Use
OPERATING TEMPERATURE	-30°C to 65°C, -22°F to 149°F
STORAGE TEMPERATURE	-30°C to 85°C, -22°F to 185°F
IP RATING	IP20
ANTENNA IP RATING	IP65
COLOR	White
WARRANTY	5 Years
COMPLIANCE	UL8750, RoHs

Due to our continued efforts to improve our products, specifications are subject to change without notice.

## Ordering Guide

MODEL	Linx SENSOR	SENSOR INPUT	DUAL 0-10V	CC30/60/120 Linx CONNECTOR**	FC30/60 Adaptor Connector***
JLS-LLE-FA102-W.B1	JLS-LLE-MWS105E.A0	Microwave****		X	X
JLS-LLE-FA102-W.B2	JLS-LLE-MWS105E.A0	Microwave****	X	X	X
JLS-LLE-FA102-W.B2	IFS105E.A0	PIR, DLH*		X	X

- DLH - Daylight Harvesting (DLH)
- \*\* JLS-LLE-CC30/60/120 ECO cable connector - Used to plug Linx Sense family of sensors into JLS-LLE-FA102-W Adaptor
- \*\*\*JLS-LLE-FC30/60 cable connector from JLS-LLE-FA102 Adaptor to driver
- \*\*\*\*Adjustable sensitivity

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# JLS-LLE-FA102-W SERIES

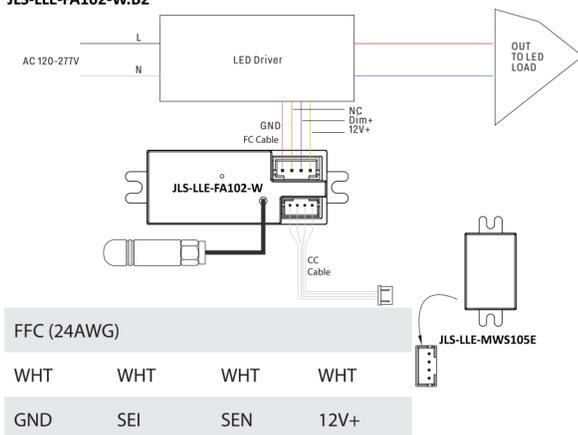
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## Accessory Ordering Guide

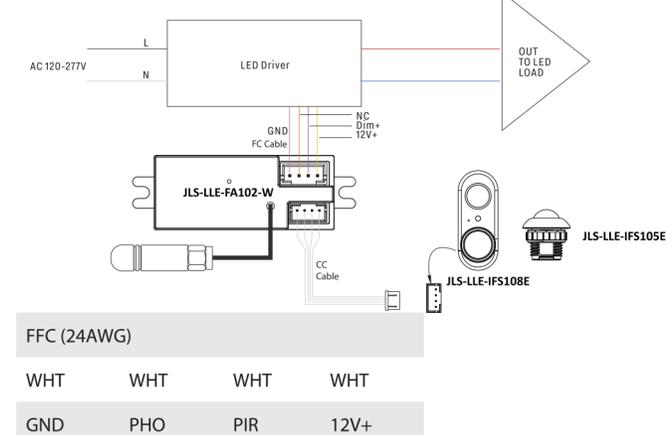
MODEL	DESCRIPTION
JLS-LLE-CC30	2468 24AWG white 300V 80°C Length:300mm, PH2.0-4P on both side cable between adaptor and sensor
JLS-LLE-CC60	2468 24AWG white 300V 80°C Length:600mm, PH2.0-4P on both side cable between adaptor and sensor
JLS-LLE-CC120	2468 24AWG white 300V 80°C Length:1200mm, PH2.0-4P on both side cable between adaptor and sensor
JLS-LLE-FC30	1007 22AWG white 300V 80°C Length:300mm, XH2.54-4P on left side cable (to FA102), dip tin 10mm on right side (to LED driver)
JLS-LLE-FC60	1007 22AWG white 300V 80°C Length:600mm, X H2.54-4P on left side cable (to FA102), dip tin 10mm on right side (to LED driver)
JLS-LLE-MWS105E.A0	Microwave sensor, adjustable sensitivity
JLS-LLE-IFS105E.A0	PIR, DLH sensor
JLS-LLE-IFS108E.A0	PIR, DLH sensor
JLS-LLE-TX1	2.4G-1dbi Antenna
JLS-LLE-TX5	2.4G-5dbi Antenna

## WIRING

JLS-LLE-FA102-W.B2

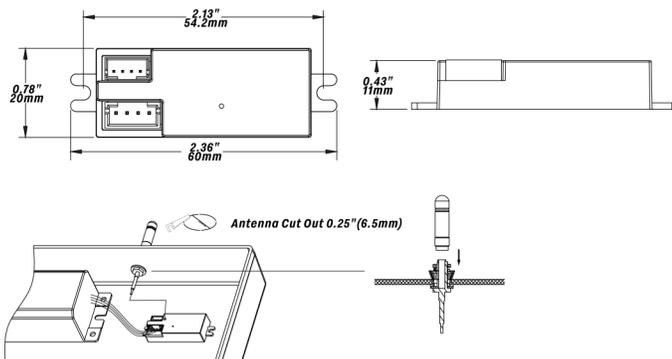


JLS-LLE-FA102-W.C1

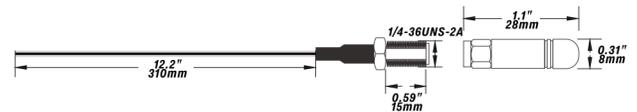


## DIMENSIONS

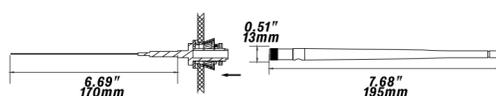
Unit:inch/mm



JLS-LLE-TX1



JLS-LLE-TX5



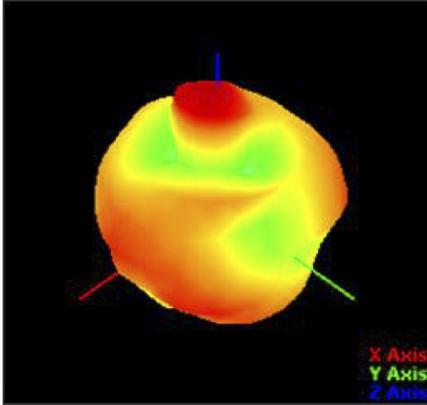
Specifications are typical values and may change without notification

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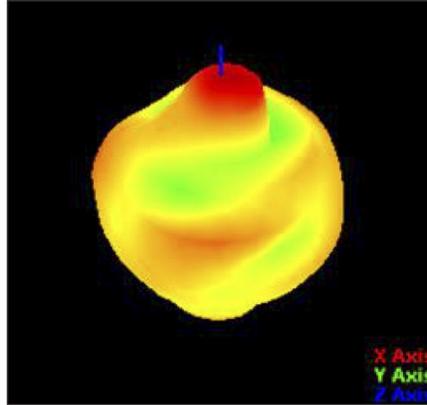
**JLS-LLE-FA102-W SERIES**

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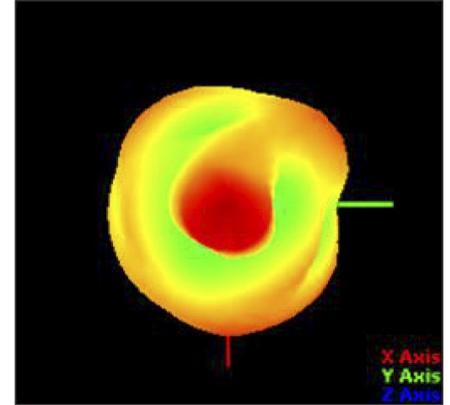
**JLS-LLE-TX1 TRANSMISSION**



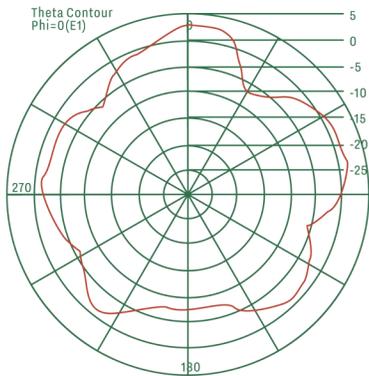
T45-P45



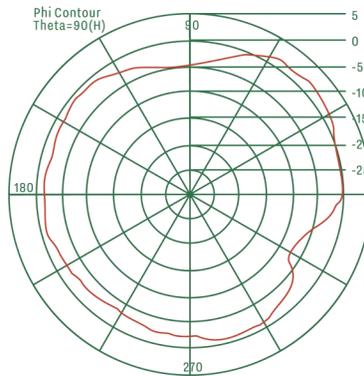
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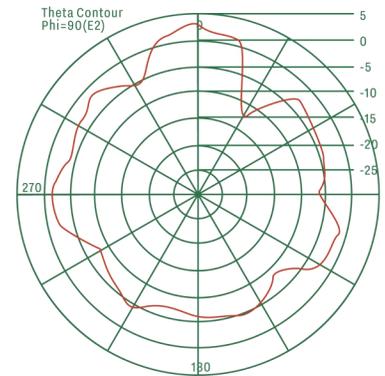
T0-P0



XOZ

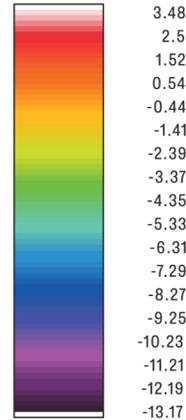


XOY



YOZ

Wireless Signal Strength	
Transmission Distance	RSSI (dbm)
164ft (50m)	-43
328ft (100m)	-45
492ft (150m)	-49
656ft (200m)	-54
820ft (250m)	-57
860ft (262m)	-58



Coordination System Description:  
 Line Color XYZ      Theta-Phi  
 Red L.      Axis X      Theta90-Phi0  
 Green L.      Axis Y      Theta90-Phi90  
 Blue L.      Axis Z      Theta0

Note: The test transmission distance of two FA102-W

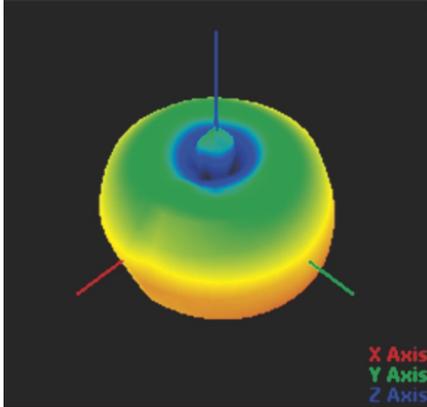
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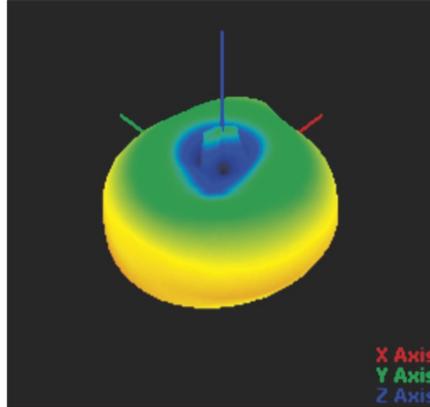
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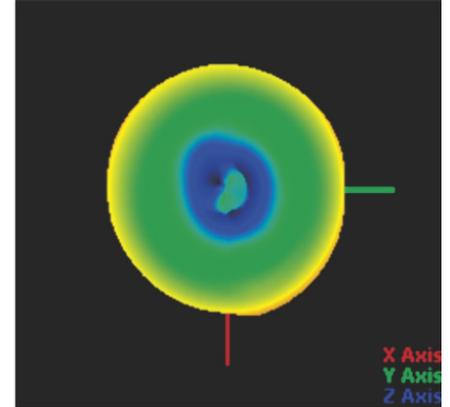
**JLS-LLE-TX5 TRANSMISSION**



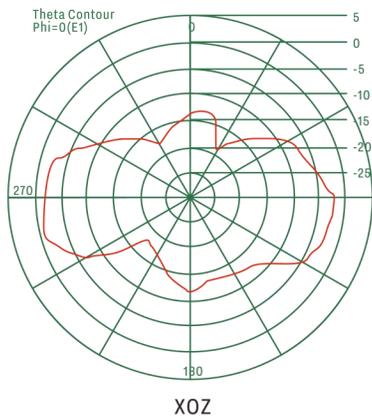
T45-P45



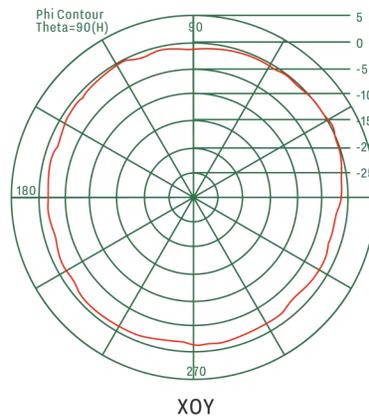
T45-P225



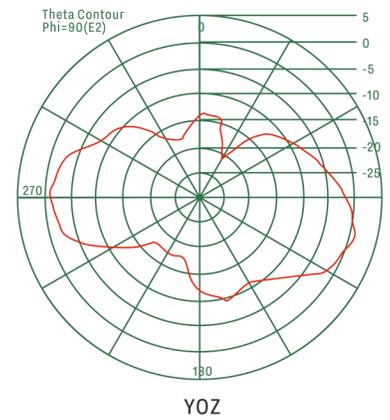
T0-P0



XOZ



XOY



YOZ

**Wireless Signal Strength**

Transmission Distance      RSSI (dbm)

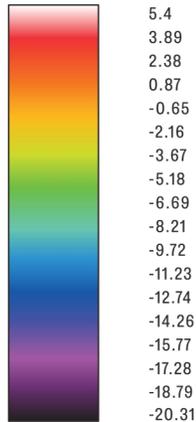
328ft (100m)                    -37

656ft (200m)                    -47

984ft (300m)                    -48

1312ft (400m)                   -59

1640ft (500m)                   -60



**Coordination System Description:**  
 Line Color    XYZ                    Theta-Phi  
 Red L.        Axis X                    Theta90-Phi0  
 Green L.      Axis Y                    Theta90-Phi90  
 Blue L.        Axis Z                    Theta0

Note: The test transmission distance of two FA102-W

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# JLS-LLE-FA102-W SERIES

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## PRODUCT LABEL

**Fixture Adapter**  RESET

Input: Class 2, CV, 12VDC, 45mA, 0.5W,  
Output: Class 2, 10VDC, 10mA max. 0.1W  
Input Type Class 2  
Output Type Class 2 Tc: 70°C  
Output Load Type Specific load- 0-10V interface  
Damp locations  
LONG RANGE ANTENNA

FCC ID: 2A26YLTKTVT2022

WHT	WHT	WHT	WHT
GND	SEI	SEN	12V+



Install Guide

PINK	ORG	PUR	YEL
GND	NC	DIM*	12V*

JLS-LLE-FA102-W.B2

**Fixture Adapter**  RESET

Input: Class 2, CV, 12VDC, 45mA, 0.5W,  
Output: Class 2, 10VDC, 10mA max. 0.1W  
Input Type Class 2  
Output Type Class 2 Tc: 70°C  
Output Load Type Specific load- 0-10V interface  
Damp locations  
LONG RANGE ANTENNA

FCC ID: 2A26YLTKTVT2022

WHT	WHT	WHT	WHT
GND	PHO	PIR	12V+



Install Guide

PINK	ORG	PUR	YEL
GND	NC	DIM*	12V*

JLS-LLE-FA102-W.C1

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## APP DOWNLOAD



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