Cyrus F

Cyrus F is a versatile sensor uniquely blending motion, and ambient light together with dual channel dimming. This compact in-fixture controller has a 12-24V DC input voltage range. The device can be configured in wireless mode and UART mode. Device firmware can be updated using OTA (Over-the-Air) after installation.

Table of Contents

1. Features

- Motion, and ambient light sensing
- 0-10V dual channel class-2 dimming output for intensity and CCT control
- Compact form factor
- BLE 5.2 based non-flooding intelligent communication
- Zero downtime Over-the-Air (OTA) firmware updates
- Supports UART

2. Specifications

Electrical	Symbol	Min.	Typ.	Max.	Unit	Remarks
Input Voltage	V_{in}	12		24	Vdc	Rated input Voltage
Input Current	I_{in}	22*1		60*2	mA	@12 Vdc *1 When used as a BLE sensor *2 When used as sensor and dual channel controller

Output Channel	Symbol	Min.	Typ.	Max.	Unit	Remarks
Output channel 1	CH1	0		10	V	Max output tolerance ±2%
Output channel 2	CH2	0		10	V	Max output tolerance ±2%
Output Current				15	mA	0-10V sink, For dimming max output
Dimming Range		0		100	%	
Dimming Resolution			7		bit	1000 steps
Dimming Curve			Linear			
Programming interface	Smartphone Application					Android/iOS
Additional Control Interface	UART					Light/motion

Bluetooth	Min.	Typ.	Max.	Unit	Remarks
Frequency Range	2402		2480	MHz	
TX Power	6	8		dBm	Conductive
TX current			48	mA	Total current@ Max Tx power
Rx Current			37	mA	Total Current @Rx Mode
Receiver Sensitivity		-95		dBm	

Environmental	Symbol	Min.	Typ.	Max.	Unit	Remarks
Ambient Temperature	ta	-20		50	°C	
Storage Temperature	ts	-20		70	°C	
Case Temperature	tc		47.6		°C	
Relative Humidity	RH			85	%	
IP Rating			IP20			Indoor use only

Mechanical	Min.	Typ.	Max.	Unit	Remarks
Dimensions		29.5x36		mm	Diameter x Height
Dimensions		1.161x1.417		in	Diameter x Height
Net Weight		90		g	In gram
Net Weight		3.17		oz	In ounce

3. Sensor Specifications

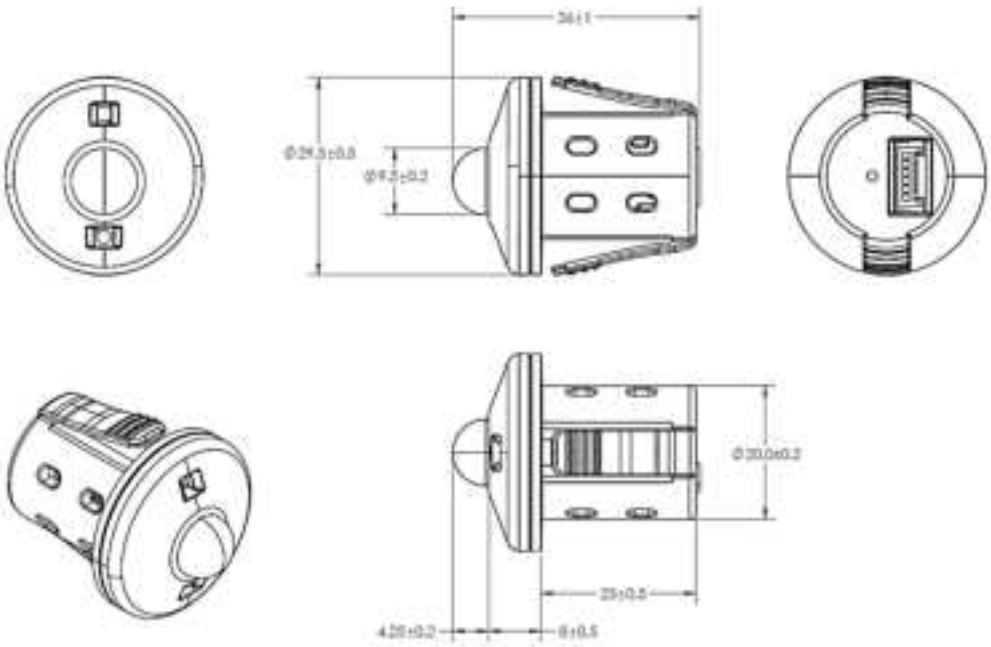
PIR sensor	Min.	Typ.	Max.	Unit	Remarks
Mounting Height	2.4	2.8	3.0	m	
Detection Range		4.0		m	@3.0 m mounting height

Color sensor	Min.	Typ.	Max.	Unit	Remarks
Dynamic Illuminance Accuracy	10		1000	lux	
Default Range Setting	19		512	lux	User programmable
Illuminance Accuracy			±5	%	
Color Accuracy			±5	%	

4. Device Dimensions

All dimensions are in mm

Case Material: V0 PC plastic

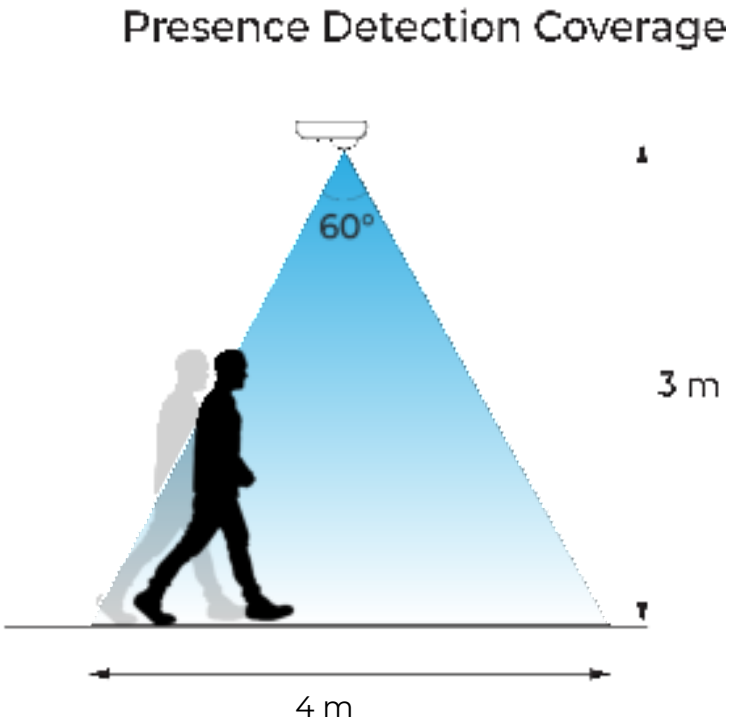


5. Wire Description

PIN	SYMBOL	COLOR	DESCRIPTION
1	VDC	Red	12-24Vdc for sensor power
2	Ground	Black	GND
3	CH1+ 0-10V	Yellow	Intensity
4	CH2+ 0-10V	Green	CCT
5	TX	White	UART communication
6	RX	Blue	UART communication

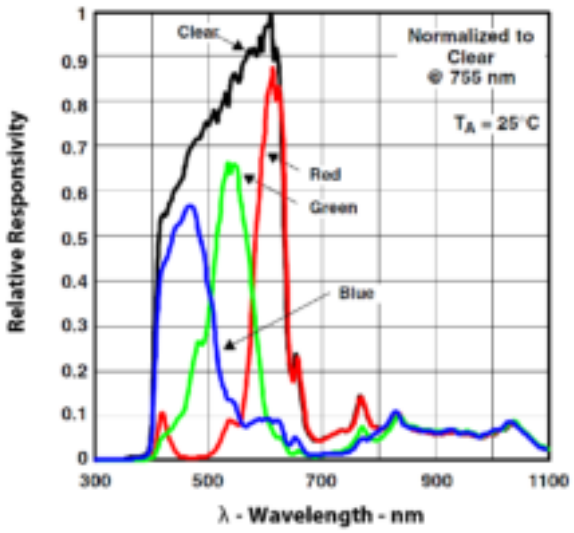
6. Sensor Characteristics

PIR sensor characteristics

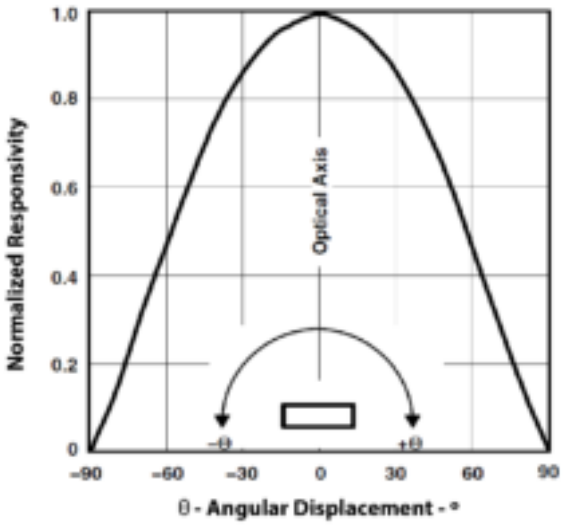


Color sensor characteristics

Photodiode Spectral Responsivity



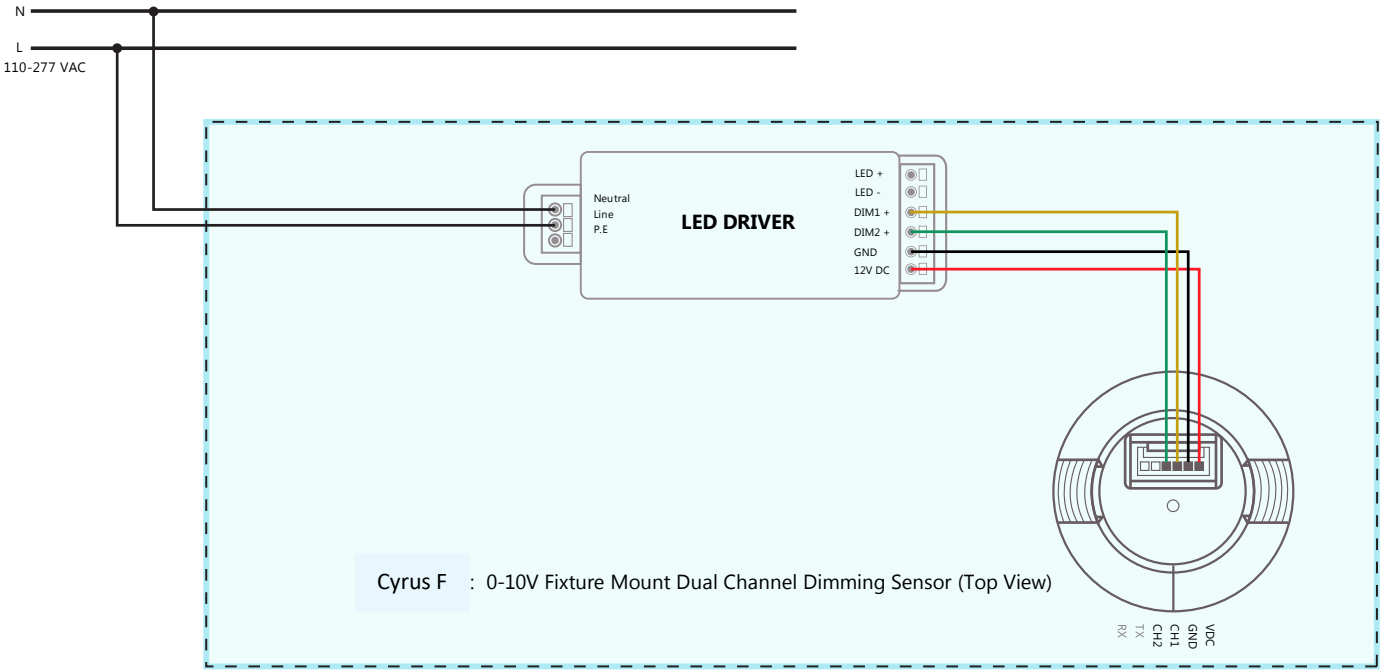
Normalized Responsivity vs Angular Displacement



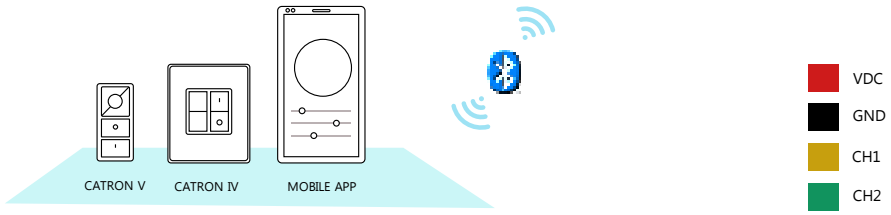
7. Wiring Diagram

1. Configuring Cyrus F in a light fixture for motion & daylight sensing, dimming, and tuning control

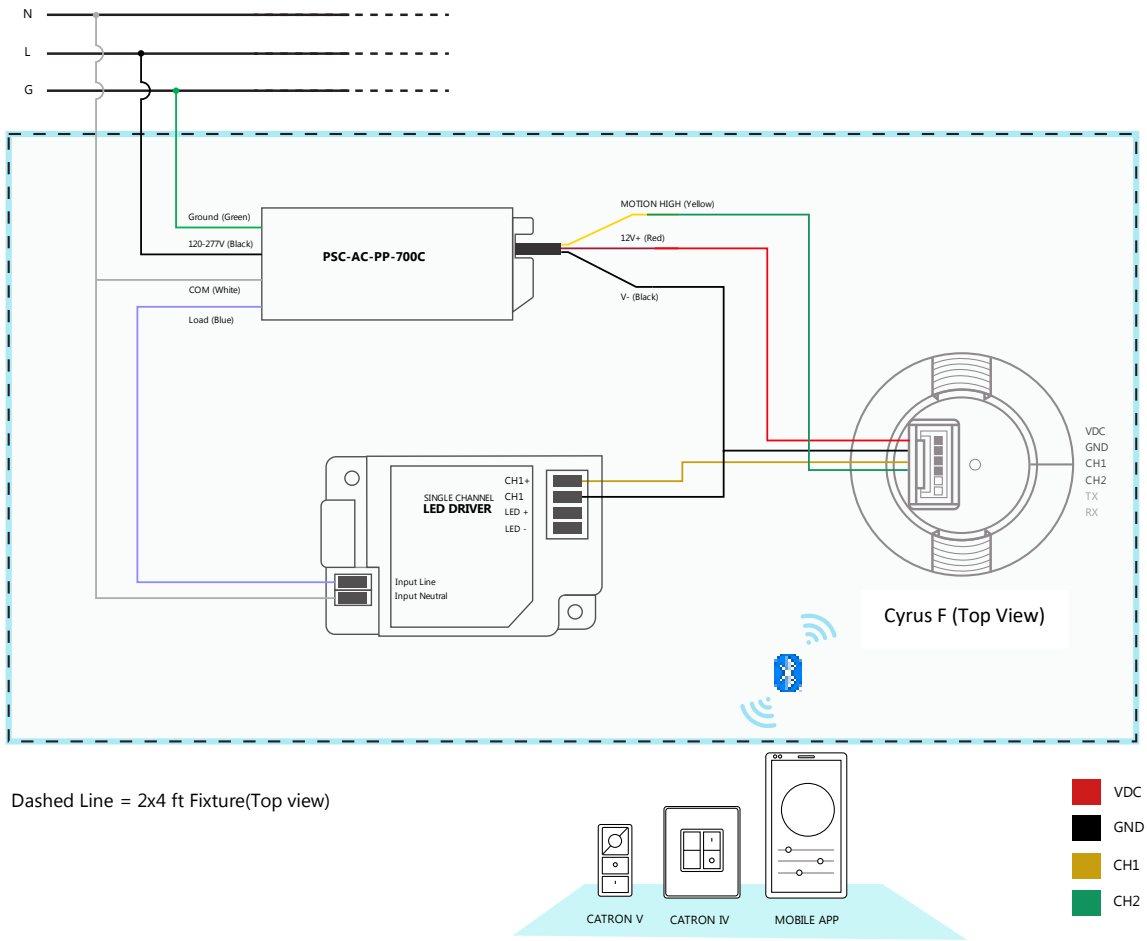
1a) Powering the Cyrus F via 12VDC auxiliary output from a driver



Dashed Line = 2x4 ft Fixture

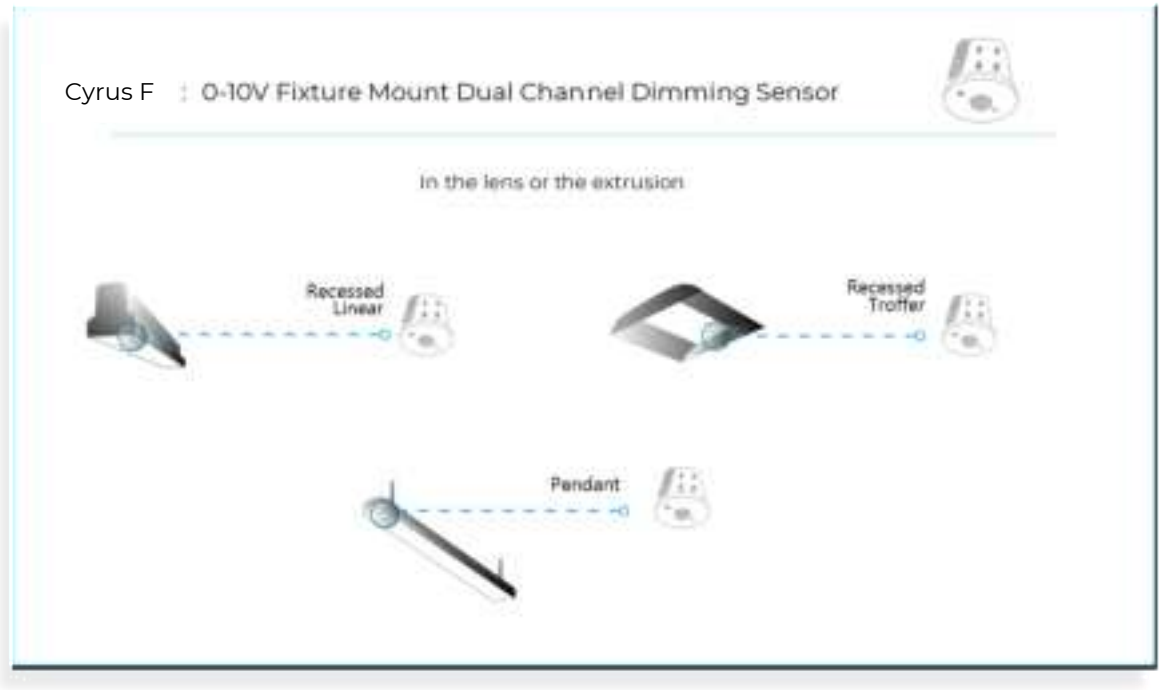


1b) Powering the Cyrus F via powerpack



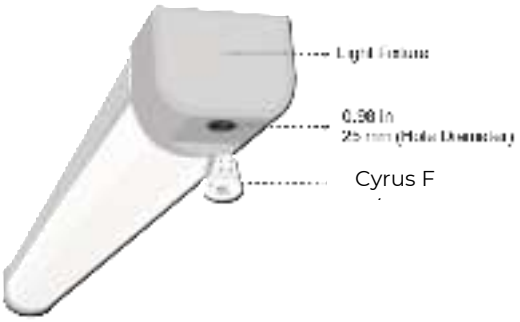
Set the output channel mode of the Cyrus F as 'single channel' in the mobile application

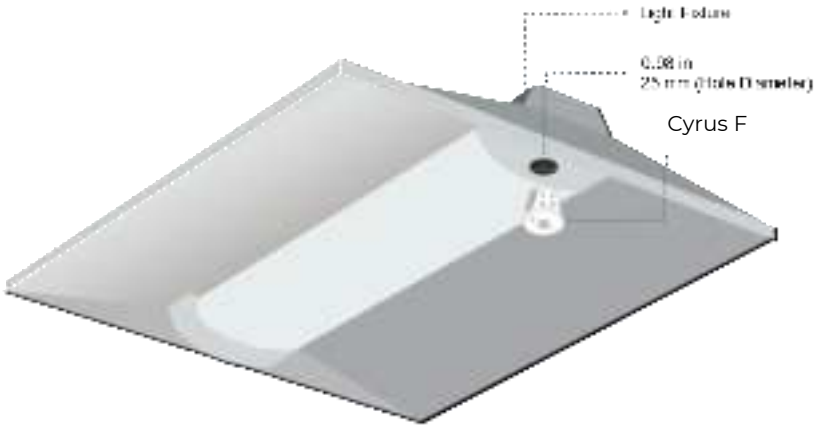
Design Options



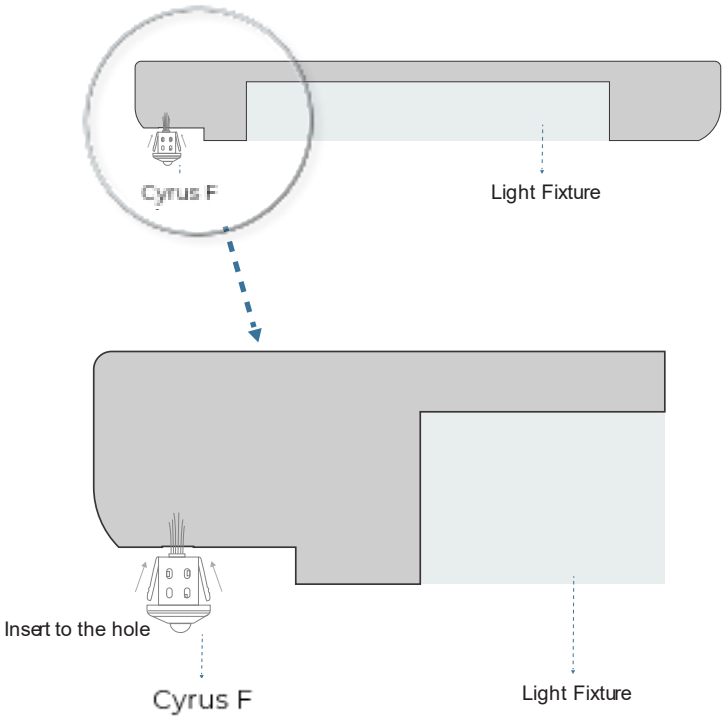
8. Installation

Create a hole of diameter 25mm (0.98in) on the fixture





Gently insert the device in to the hole



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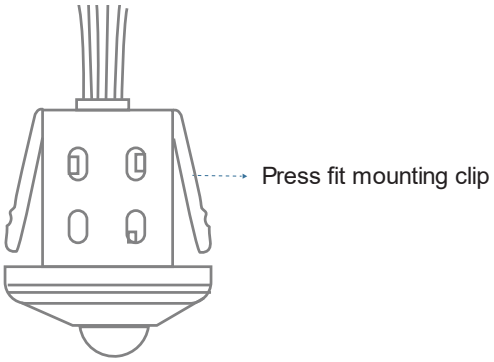
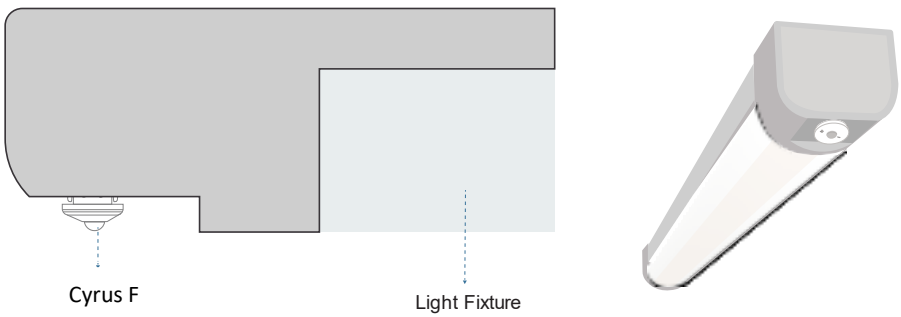


The press fit mounting clip on the device will keep it attached to the fixture



9. Warning

1. To prevent the device from any defect, please handle and store it with care.
2. Do not store in very humid location or at extreme temperature.
3. Do not open or disassemble the product.
4. Observe the correct polarity of output terminal
5. Avoid input voltage exceeds the maximum rating, which will cause damage to the circuit and result in malfunction.
6. Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.

10. Ordering Information

Product Code	Product Name	Communication	Voltage Rating	Sensor	Output Channel	UART
WXD2CPLFN	Motion & light sensor with dual channel dimming	BLE5.2	12-24V DC	Motion & light sensor	0-10V (2 channels)	Yes

11. Compatible Devices

- iOS - iPhone & iPad (version 9 and above)
- Android- almost all device (version 6.0 and above)

Visit the link for commissioning and control information

Link - https://wisilica.com/help/wxd2cplc/PreconfigurationWXD2CPLR.htm

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- iOS: https://apps.apple.com/us/app/wisilica-platform/id954192558

FCC Statement

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.

Caution: Any changes or modi?cations to this device not explicitly approved by manufacturer could void your authority to operate this 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.

RF Exposure Information

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator and your body.

CONNECTING THINGS TO LIFE

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Version 1.0