

**Zigbee Wireless**  
**S830-PL-DZB**  
 PIR + Light + Photo + Temp

## Zigbee PIR, Photo & Lighting Control ON/OFF & 0-10V Dimming

### Product Features

- Zigbee Wireless Control of Luminaries
- Zigbee Occupancy Sensor, & Photo Sensor
- 2.4GHz, +20dBm Zigbee transmit power
- 0-10V Analog Dimming Control, 50mA Sink
- Compatible with Electronic Ballasts & LED Drivers that comply with IEC60929 Annex E2, 0-10V Dimming.
- Best when used with Dim to Zero (Dim to OFF) Ballasts & LED Drivers

### Environmental

1. Operating temperature: 0 to +60°C
2. Storage temperature range: -10C to +70°C
3. Humidity (non-condensing): 5% - 95%RH
4. Cooling: Convection
5. Vibration Frequency: 5-55Hz/2g, 30 minutes
6. Impact resistance: 1g/s

### Safety and Compliance

1. UL244A Listed
2. FCC ID: 2AJ2N-S830-PL-DZB, FCC Class B
3. Zigbee 3.0 compatible
4. Mount 1/2 Inch Trade Size Knockout, Dust Proof Design IP50

### Electrical Specifications at 25°C

- Input: UL Class 2 DC voltage 12VDC (10 to 14VDC)
- Input Current Draw: 60mA, 200mA Peak during transmit.
- 0-10V Dimming intended for use with Dim to Zero/Dim to OFF Ballasts and LED Drivers.



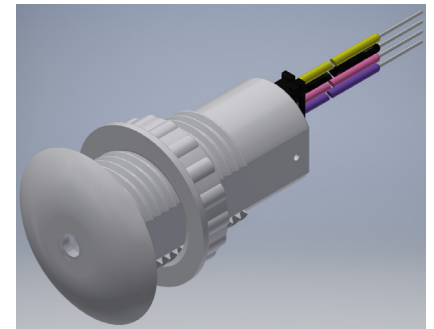
IP50



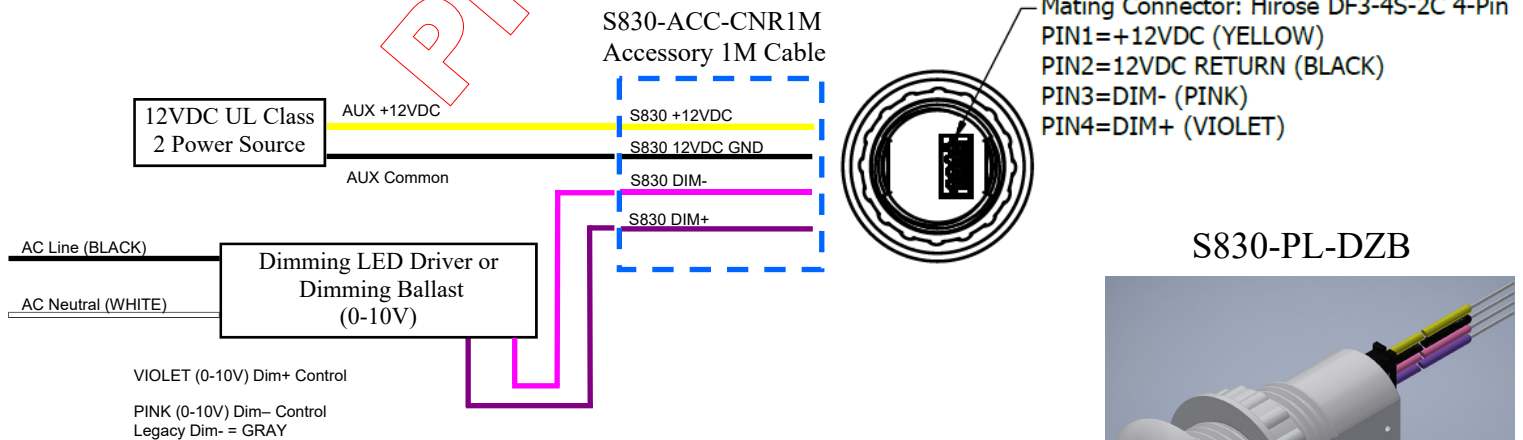
### Part Numbers

Part Number	Dimming US & CN Class 2	Control	ON/OFF Control	Dimming 0-10V Analog	Photo Sensor	PIR Occupancy Sensor
S830-PL-DZB	YES	Zigbee 3.0	YES via Dim	YES	YES	YES
S830-DZB	YES	Zigbee 3.0	YES via Dim	YES	NO	NO

S830-DZB

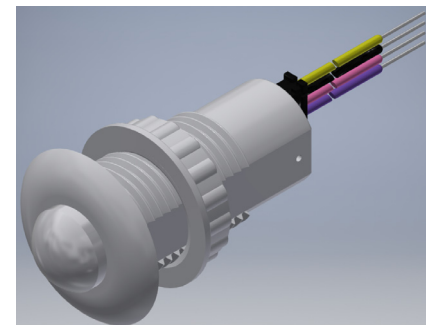


### Typical Application Circuit



S830

S830-PL-DZB



Specifications subject to change without notice

**FCC ID 2AJ2N-S830-PL-DZB:** Channel 11 to 25  
See warnings on page 4.

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# Zigbee PIR, Photo & Lighting Control ON/OFF & 0-10V Dimming

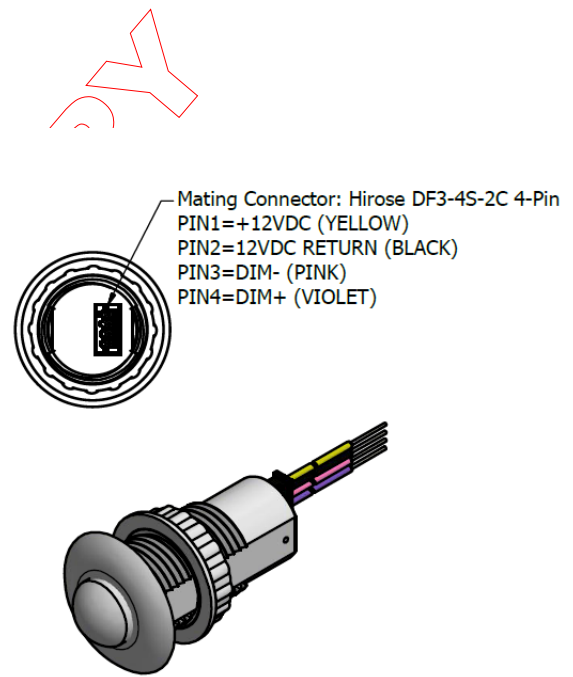
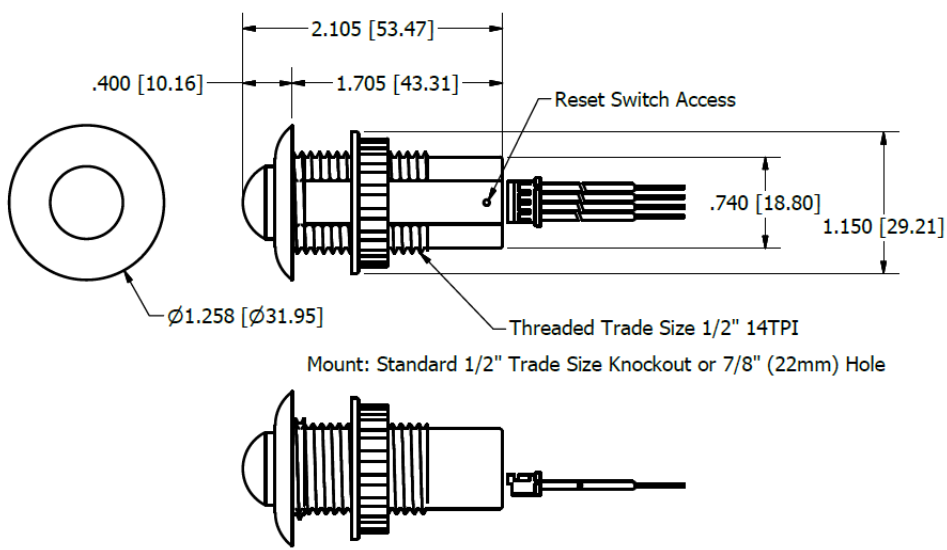
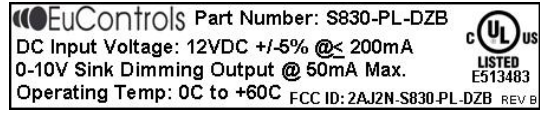
FCC ID 2AJ2N-S830-PL-DZB: Channel 11 to 25  
 See warnings on page 4.

### Mechanical Dimensions: Inches [mm]

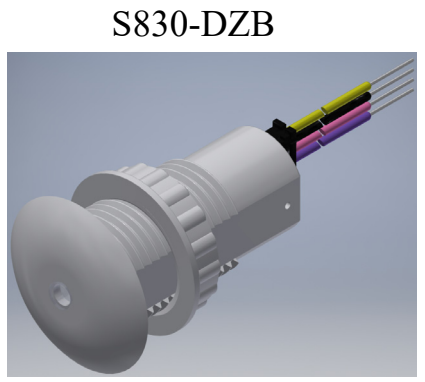
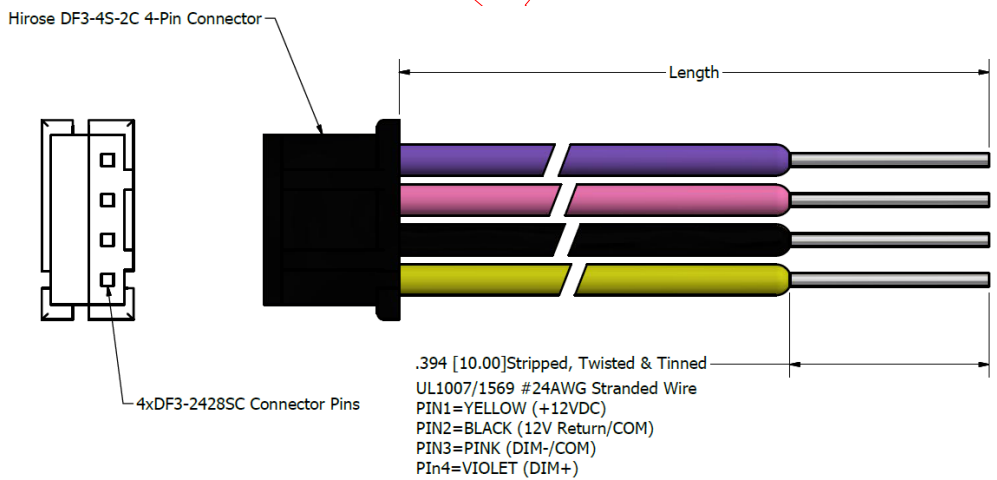
Material: 5VA PC Plastic Case  
 Weight: TBD Grams (TBD oz.) Typical

Notes:  
 RED Occupancy LED Visible through PIR Lens.  
 GREEN Zigbee LED Visible through PIR Lens.  
 S830-DZB GREEN Zigbee LED Visible through Flat Cover  
 Reset switch is located on flat side of case near connector.

### Labeling Example



### S830-ACC-CNR1M, 1 Meter Cable, mm (Scale ~5:1)



## Zigbee PIR, Photo & Lighting Control ON/OFF & 0-10V Dimming

### Input Specifications

Parameter	Min.	Typ.	Max.	Notes/Conditions
Input Voltage	10	12	14	V DC, UL Class 2 Power Source
Input Current	—	60mA	200mA Peak	mA DC, Peak occurs during transmit
Zigbee Control Transmit Power	—	—	+20dBm	ON/OFF, 0-10V dimming & Photo Sensor, Standard Zigbee
Zigbee Control Receive	—	-95dBm	—	Zigbee Radio Receive Sensitivity
Photo Sensor Range	1	—	300fc	Precision Optical Filtering Matches the Human Eye

### Output Specifications

Parameter	Min.	Typ.	Max.	Notes/Conditions
Sink Current on 0-10V (+) Violet Wire	0mA	—	50mA	IEC60929 Annex E2
Absolute Voltage Range on 0-10V (+) Violet Wire	-20.0V	—	+20V	IEC60929 Annex E2
Dimming Range	0.2V	—	+10V	Ballast or Led Driver provides Dim Voltage & Current per IEC60929 Annex E2, 0(1)-10V Analog Dimming

### Environmental Specifications

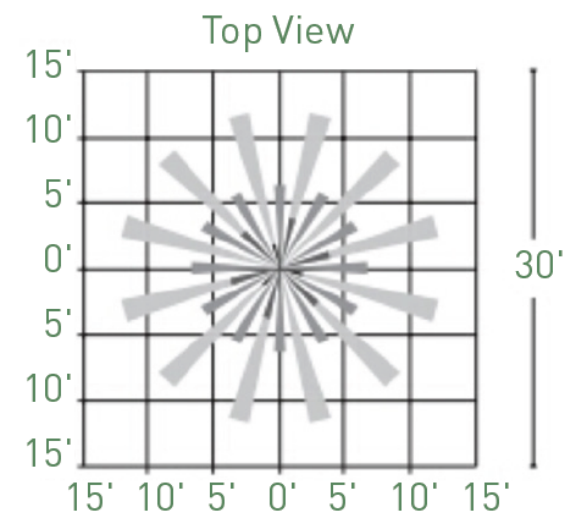
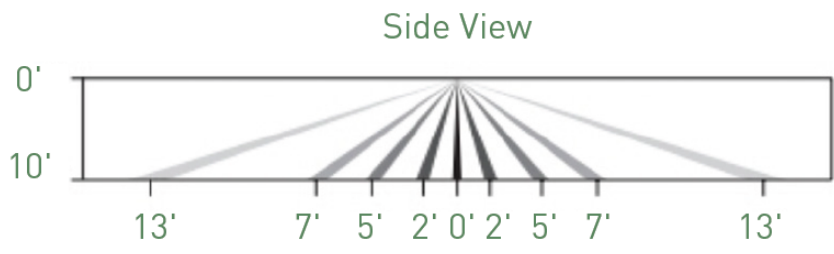
Parameter	Min.	Typ.	Max.	Notes/Conditions
Operating Temperature (Ta)	0 °C	—	+60 °C	Operating temperature range.
Storage Temperature (Ts)	-10 °C	—	+70 °C	Non operating temperature range.
Operating Humidity	—	—	95% RH	Relative Humidity, non-condensing.
Vibration	5 Hz	—	55 Hz	2G, 10 minutes/1 cycle, period 30 minutes, each along X, Y, Z axis.

### Safety & EMC Compliance

Safety	Notes/Standards
UL/CUL Listed	UL910, CSA22.2 NO. 205
CE	EN61347-1, EN61347-2-13
0-10V Class 2 Dimming Circuit	UL & cUL Class 2, Dim+ Violet/Dim- Pink. (Using a 12VDC UL Class 2 Power Source)
FCC	FCC ID 2AJ2N-S830-PL-DZB CH11 to CH25, Also Certified to FCC Class B, See Warnings on page 4.

## Zigbee PIR, Photo & Lighting Control ON/OFF & 0-10V Dimming

**Standard Lens Coverage**



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

**Note:** 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.

To maintain compliance with FCC's RF exposure guidelines, the distance must be at least 20cm between the radiator and your body, and fully supported by the operating and installation configurations of the transmitter and its antenna(s).