



# EuControls S830-PL-DBT Bluetooth Mesh PIR Photo and Lighting Control Instruction Manual

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**EuControls S830-PL-DBT Bluetooth Mesh PIR Photo and Lighting Control Instruction Manual**



**Bluetooth Wireless  
S830-PL-DBT  
PIR + Light + Photo + Temp**

## **Product Features**

- Bluetooth mesh Wireless Control of Luminaries
- Bluetooth mesh Occupancy Sensor, & Photo Sensor
- 2.4GHz, +10dBm Bluetooth 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

## **Safety and Compliance**

1. UL 916 Listed
2. FCC ID: 2AJ2N-S830-PL-DZB, FCC Class B.
3. Bluetooth mesh compatible
4. Mount 1/2 Inch Trade Size Knockout, Dust Proof Design IP50

## **Environmental**

1. Operating temperature: 0 to +60°C
2. Storage temperature range: -10°C 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

## Electrical Specifications at 25OC

- 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.



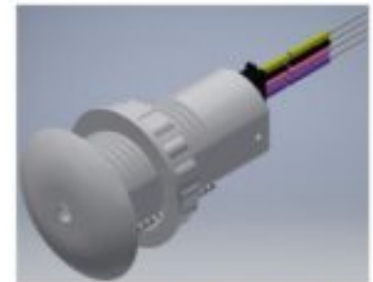
IP50



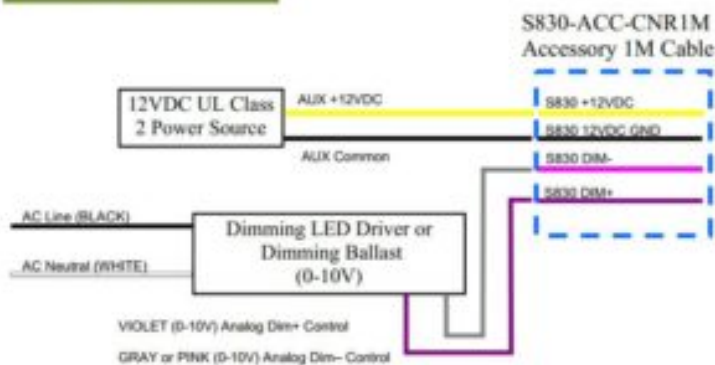
### Part Numbers

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

S830-DBT



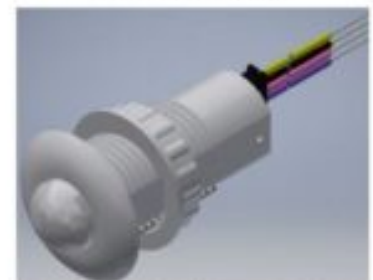
### Typical Application Circuit



S830

Mating Connector: Hirose DF3-4S-2C 4-Pin  
 PIN1=+12VDC (YELLOW)  
 PIN2=12VDC RETURN (BLACK)  
 PIN3=DIM- (PINK)  
 PIN4=DIM+ (VIOLET)

S830-PL-DBT



FCC ID 2AJ2N-S830-PL-DBT: Channel 0 to 39  
 See warnings on page 4.

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Specifications subject to change without notice

## Labeling Example

**EuControls** Part Number: S830-PL-DBT

DC Input Voltage: 12VDC  $\pm 5\%$  @  $\leq 200\text{mA}$

0-10V Sink Dimming Output @ 50mA Max.

Operating Temp: 0C to +60C

FCC ID: 2AJ2N-S830-PL-DBT REV B

## Mechanical Dimensions: Inches [mm]

**Material:** 5VA PC Plastic Case

**Weight:** TBD Grams (TBD oz.) Typical

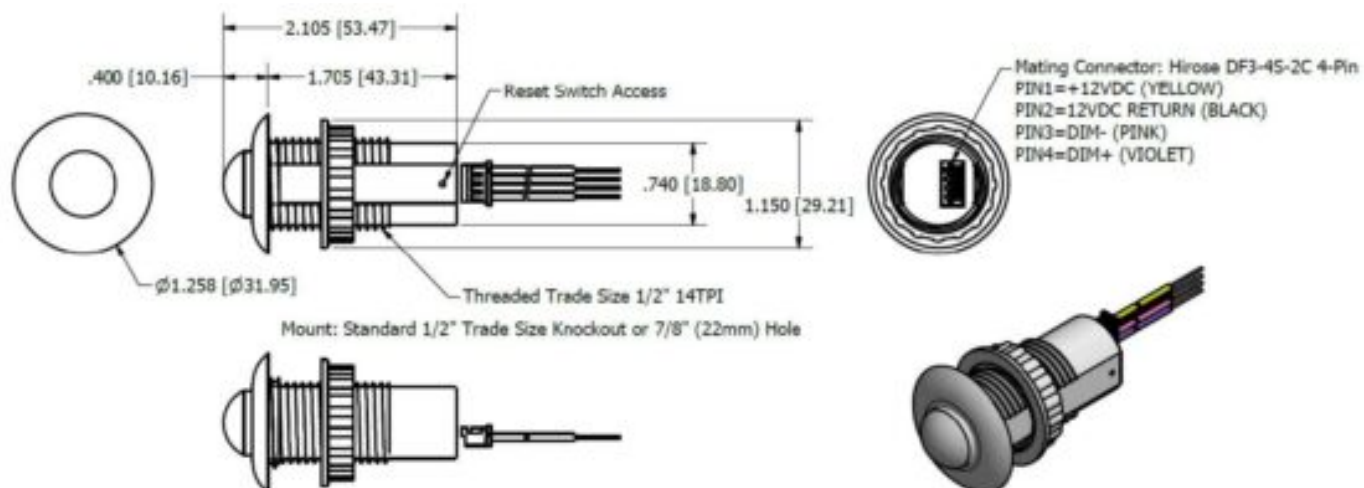
### Notes:

RED Occupancy LED Visible through PIR Lens.

BLUE Bluetooth LED Visible through PIR Lens.

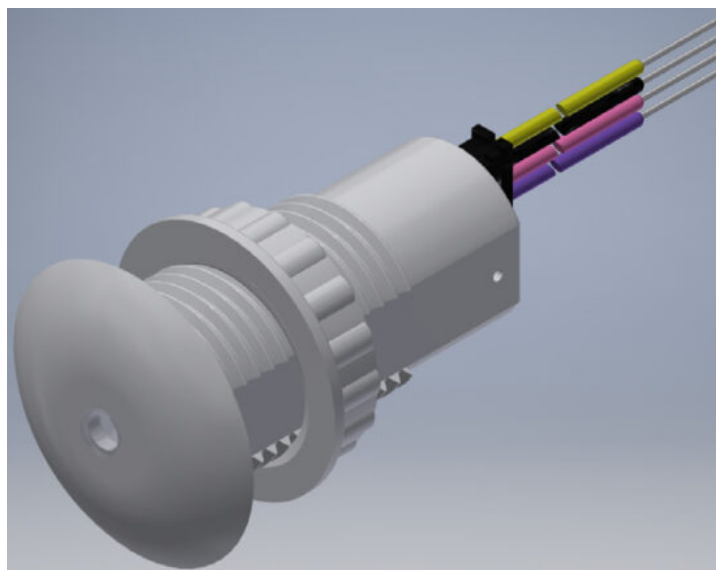
S830-DBT BLUE Bluetooth LED Visible through Flat Cover

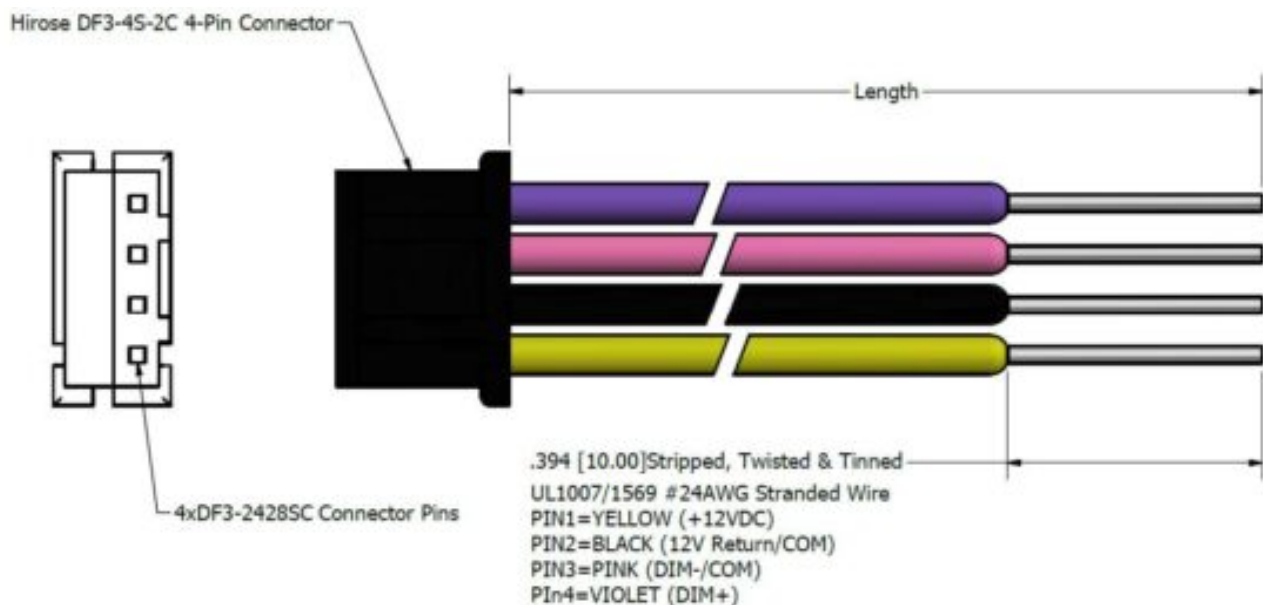
Reset switch is located on flat side of case near connector.



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

**S830-DBT**





## 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
Bluetooth Control Transmit Power	—	—	+10dBm	ON/OFF, 0-10V dimming & Photo Sensor, Standard Bluetooth
Bluetooth Control Receive	—	-95dBm	—	Bluetooth 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 (+) Purple Wire	0mA	—	50mA	IEC60929 Annex E2
Absolute Voltage Range on 0-10V (+) Purple 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

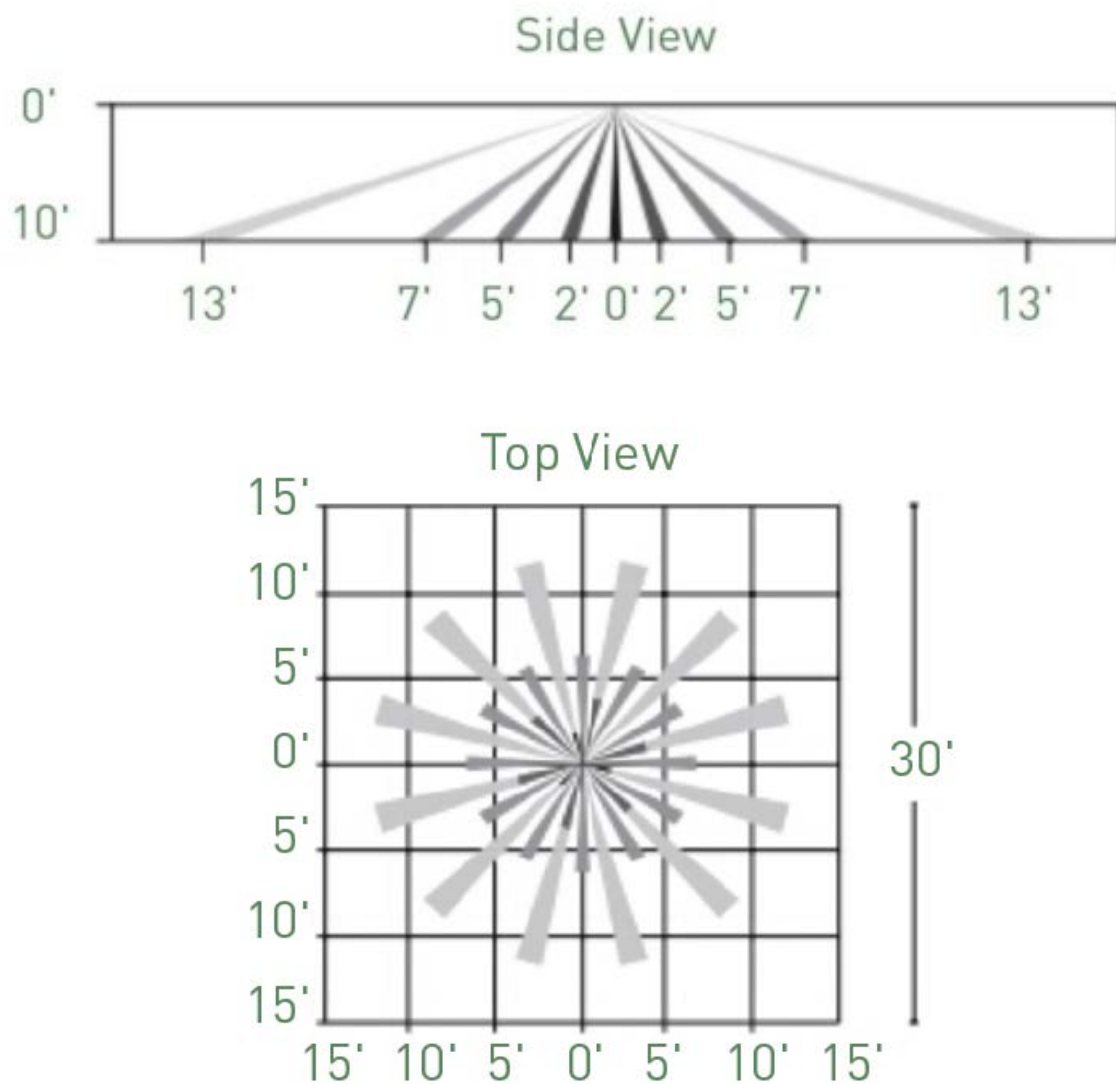
## Environmental Specifications

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	UL916, 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-DBT CH0 to CH39, Also Certified to FCC Class B, See Warnings on page 4.

## Standard Lens Coverage



## FCC ID 2AJ2N-S830-PL-DBT:

### Channel 0 to 39

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:

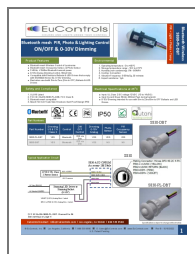
- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

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).

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.

**Read More About This Manual & Download PDF:**

## Documents / Resources



[EuControls S830-PL-DBT Bluetooth Mesh PIR Photo and Lighting Control](#) [pdf] Instruction Manual

S830-PL-DBT, S830PLDBT, 2AJ2N-S830-PL-DBT, 2AJ2NS830PLDBT, S830 PL DBT Bluetooth Mesh PIR Photo and Lighting Control, Bluetooth Mesh PIR Photo and Lighting Control, PIR Photo and Lighting Control, Lighting Control

## References

- [EuControls - Intelligent and Wireless Lighting Controllers](#)