

BRI823-B-D High/Low/Off Passive Infrared Fixture Integrated Outdoor Sensor

Hold off setpoint with automatic calibration option for convenience and added energy savings



BRI823-B-D



(DIP Switch)



RC-100 (OPTIONAL)

IP65 rated for wet locations

Multiple mounting options for easy installation

Fully adjustable high and low dimmed light levels; optional dusk to dawn control



PROJECT	
LOCATION/TYPE	

Product Overview

Description

The BRI823-B-D mounts in an outdoor lighting fixture and provides multi-level control based on motion and/or daylight contribution. It controls 0-10 VDC LED drivers or dimming ballasts, and is rated for wet and cold locations. All control parameters are adjustable via a wireless configuration tool capable of storing and transmitting sensor profiles.

Applications

The slim, low-profile BRI823-B-D is designed for installation inside the bottom of a light fixture body. When fully assembled and installed in an IP65-rated fixture, the PIR sensor module parts are IP65 outdoor rated. The sensor is ideal for areas such as parking facilities, gas stations, pedestrian pathways and warehouses. A choice of two PIR Lens ensures complete coverage for mounting heights up to 40'.

Features

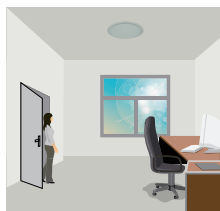
- Provides line voltage On/Off switching and 0-10VDC dimming control
- Works with ballasts or LED drivers
- High and low modes fully adjustable from 0 to 10V
- Time delay from 5 to 30 minutes
- Optional cut off delay
- Adjustable ramp up and fade down times
- Optional daylighting setpoints feature automatic calibration, or permit manual adjustment.
- Polycarbonate, flame retardant, UV resistant, impact resistant.
- UL773A and FCC

Specifications

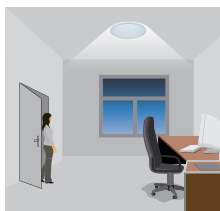
Power supply	120-277VAC
Maximum load @ -40°F ~ +158°F (-40°C ~ +70°C)	Resistive/Halogen - 800W/1200W@120/277V Fluorescent Ballast/CFL - 660W/1200W@120/277V Electronic Ballast (LED) - 5A/5A@120/277V
Dim control output	0-10V, max. 25mA sinking current
Detection radius/angle	30ft @ 40ft Height/360°
Mounting height	Max 24ft. @LW1 Max 40ft. @LS2
Remote range	50ft. (15m) indoor, no backlight
Humidity	Max. 95% RH
Temperature	-40°F ~ +158°F (-40°C ~ +70°C)

Corridor Function

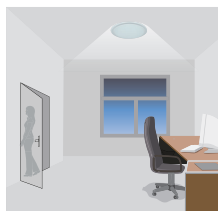
This function inside the motion sensor to achieve tri-level control, for some areas which require a light change notice before switch-off. The sensor offers 3 levels of light: 100%-->dimmed light (natural light is insufficient)-->off; and 2 periods of selectable waiting time: motion hold-time and stand-by period; Selectable daylight threshold and freedom of detection area.



With sufficient natural light, the light does not switch on when presence is detected.



With insufficient natural light, the sensor switches on the light automatically when presence is detected.



After hold-time, the light dims to stand-by level if the surrounding natural light is below the daylight threshold.



Light switches off automatically after the stand-by period elapses.

Note: if you choose STAND-BY DIM is 0, the stand-by period is 0, it is ON/OFF function.



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Smart Photocell Function

open the smart photocell sensor by push  when remote control is in setting condition.



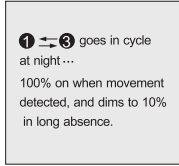
1 The light switches on at 100% when there is movement detected.



2 The light dims to stand-by level after the hold-time.



3 The light remains in dimming level at night.

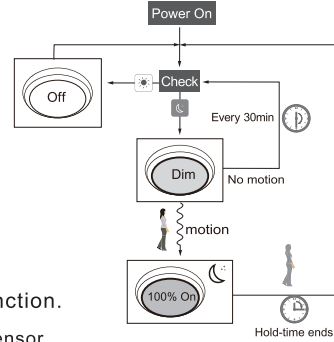


4 When the natural light level exceeds setpoint off to light, the light will turn off even if when the space is occupied.



5 The light automatically turns on at 10% when natural light is insufficient (no motion).

Settings on this demonstration:
 Hold-time: 10min
 Setpoint on: 50lux
 Setpoint off: 300lux
 Stand-by Dim: 10%
 Stand-by period: +∞
 (when the smart photocell sensor open, the stand-by time is only +∞)

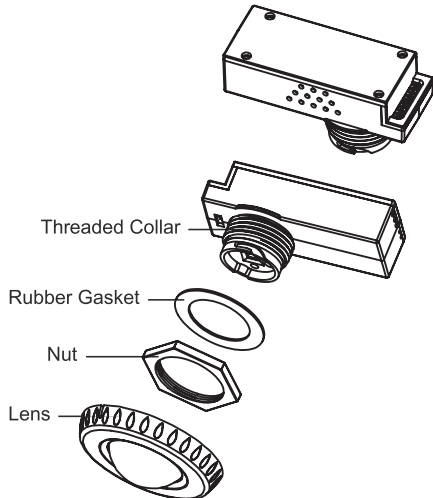
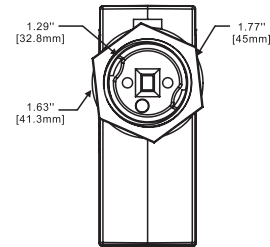
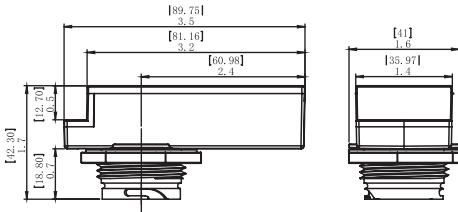


Difference between Corridor Function and Smart Photocell Function.

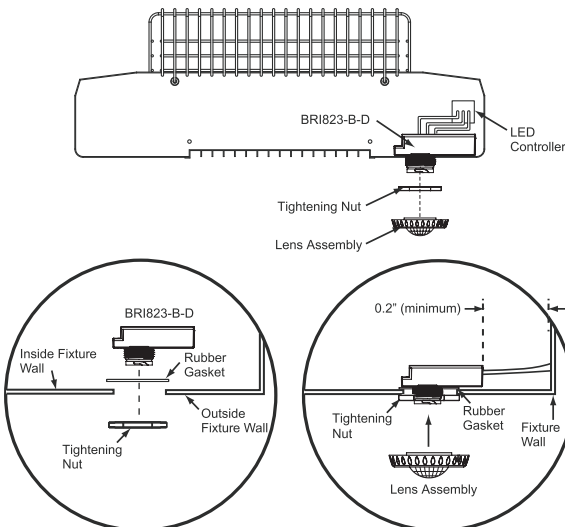
1. In corridor function, the daylight sensor as threshold to assist motion sensor, in Photocell function, the daylight sensor works independently to motion sensor.
2. Turn On light by detect motion when natural light is insufficient for corridor function, turn on light by natural light level exceeds setpoint on to light, do need to detect motion, for smart photocell function.
3. Turn off light by stand-by time for corridor function, Turn off light by natural light level lower than setpoint off of light for smart photocell function.

Dimensions & Mounting

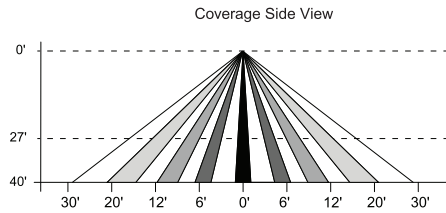
Sensor Dimensions



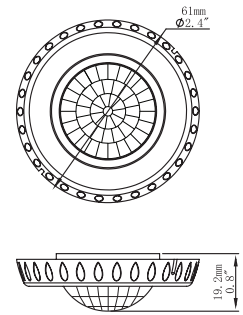
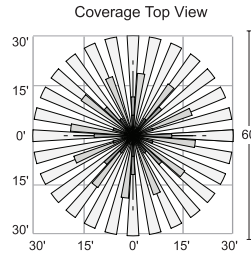
Sensor Mounting



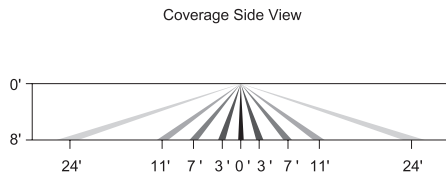
Coverage L3



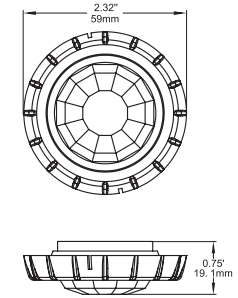
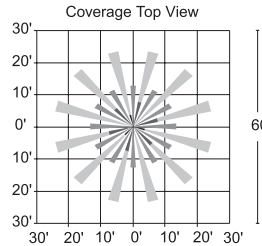
L3: 360° Coverage



L4

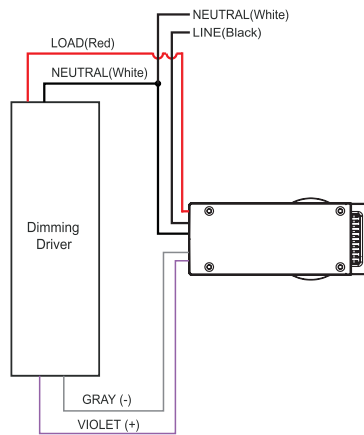


L4: 360° Coverage

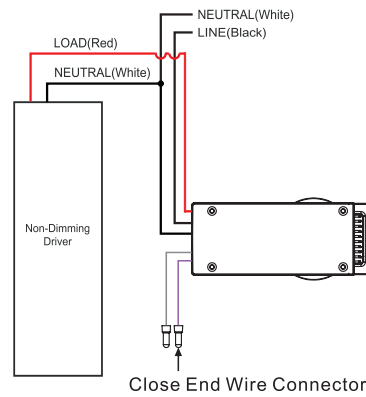


Wiring

BRI823-B-D wiring with dimming ballast or LED driver.
Dimming Driver



BRI823-B-D wiring with non-dimming ballast or LED driver.
Non-Dimming Driver



Ordering Information

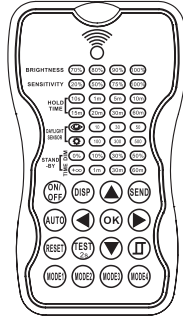
Catalog No.	Color	Description
<input type="checkbox"/> BRI823-B-D	White	Dimming PIR Sensor
<input type="checkbox"/> L3	White	360° lens, maximum coverage 48' diameter from 8'-20' height
<input type="checkbox"/> L4	White	360° lens, maximum coverage 60' diameter from 8'-40' height
<input type="checkbox"/> RC-100	Black	Remote control Battery : AAA x 2



RC-100 Sensor Remote Programmer OPERATION INSTRUCTIONS

SPECIFICATIONS

Power supply	2 x AAA 1.5V battery, Alkaline preferred
Carrying case	RC-100 in carrying case
Communication	940 nm Infrared Tx & Rx
Upload range	Up to 15 m (50 ft.)
Op. temperature	0°C~50°C (32°F~122°F)
Dimensions	123 x 70 x 20.3 mm (4.84" x 2.76" x 0.8")



WARNING

Remove the batteries from compartment if the remote will not be used in 30 days.

OVERVIEW

The remote control Wireless IR Configuration Tool is a handheld tool for remote configuration of IR-enabled fixture integrated sensors. The tool enables device to modify via pushbutton without ladders or tools, and stores up to four sensor parameter modes to speed configuration of multiple sensors.

The remote control uses bidirectional IR communication to send and receive sensor settings at mounting height up to 50 feet. The device can display previously established sensor parameters, copy parameters and send new parameters or store parameter profiles. For projects where identical settings may be desired across a large number of areas or spaces, this capability provides a streamlined method of configuration. Settings can be copied throughout a site, or in different sites.

LED INDICATORS

LED	DESCRIPTION	LED	DESCRIPTION
BRIGHTNESS	To Set the output level (in %) of connected lighting during occupancy		To select the current surrounding lux value as the daylight threshold. This feature enables the fixture to function well in any real application circumstances.
SENSITIVITY	To set the occupancy sensing sensitivity of the Sensor		The built-in daylight sensor stops working, and all motion detected could turn on the lighting fixture, no matter how bright the natural light is.
HOLD TIME	The time that the Sensor will turn off (if you choose stand-by level is 0) or dim the light to a low level after the area is vacated	STAND-BY DIM	To set the output level (in %) of connected lighting during vacancy. The sensor will regulate the lighting output at the set level. Setting the STAND BY DIM at 0 means light full off during vacancy.
DAYLIGHT SENSOR	To represents various thresholds of natural light level for the Sensor .	STAND-BY TIME	To represents the time that the Sensor will keep the light at low dim level after the HOLD TIME elapsed.

BUTTON OPERATION

BUTTON	DESCRIPTION	BUTTON	DESCRIPTION
	Press the "ON/OFF" button, the light goes to permanent on or permanent off mode, and the sensor is disabled.(MUST press "Auto"button to quit this mode for Setting.		Press "Auto" button, the sensor starts to function and all settings remain the same as the latest status before the light is switched on/off.
	Display the current/lastest setting parameters in LED indicators(the LED indicators will on for showing the setting parameters).		The button "TEST" is for testing purpose sensitivity only. after you choose sensitivity thresholds, then you press"TEST" button, The sensor goes to test mode(hold time is only 2s) automatically ,meanwhile the stand-by period and daylight sensor are disabled. Press "AUTO" button to quit from this mode.
	Press "RESET" button, all settings go back to settings of dip Switch in sensor.		
	Enter in the setting condition, and Navigate to UP and Down for choose selected parameters in LED indicators.		Press this button for open or close the smart photocell sensor which take place of normal photocell sensor switch. When remote control enters in setting conduction, you can choose open and close the smart photocell sensor. If this smart photocell sensor open, 2 Leds indicators of daylight sensor are on for choose photocell sensor setpoint on/off to light, and Stand by time is only . When the natural light level exceeds setpoint off to light, the lights will turn off even if when the space is occupied. once the natural light level exceeds this setpoint off to light, the sensor will wait and monitor for 1 minute in order to confirm the natural light level increase is not temporary before forcing the lights to go off. When the natural light level lower than setpoint on to light, the lights will turn on even when the space is not occupied. when natural light level goes lower than this setpoint on to light, the sensor will wait and monitor for 1 minute in order to confirm the natural light level decrease is not temporary before forcing the lights go on.
	Navigate to LEFT and RIGHT for choose selected parameters in LED indicators.		
	Keep records of selected parameters in remote control or in Mode 1 or mode 2 mode 3,mode 4.		
	Upload the selected parameters to sensors.		
	4 Scene modes with preset parameters which are available to be changed and saved in modes.		

SETTING

The SETTING Content contains all available settings and parameters for remote sensors. It allows you to change the available control, parameters, and operation of the sensor from factory default or current parameters.

NOTE:the setting works only in Auto mode.

Change multiple settings of sensor(s)

- 1.Press DISP button(if you push ON/OFF button before you push DISP button, the sensor is locked, so please push "AUTO" button to unlock the sensor ,and then push DISP button), the controller leds indicators will show the latest parameters.
- 2.Press enter in the setting condition, navigate to the desired setting by pressing to select the new parameters.
- 3.Press ok to confirm all setting and saving.
- 4.Aim at the target sensor and press SEND to upload the new parameter. light will be one time and off , as confirm.

NOTE: 1.If you press DISP button, the remote led indicators will show the latest parameters which were sent.

2.See **Corridor function**.

Change multiple setting of sensors with smart photocell sensor Open

1.Press "DISP", the remote led indicators will show the latest parameters.

2.Press to Select the new parameter.

3.Press , 2 Led indicators will flash, select setpoint on to light, and select setpoint off to light.

4.Press ok to confirm all setting and saving.

5.Aim at the target sensor and press "SEND" to upload the new parameter. light will be on one time and off, as confirm.

NOTE: is disabled by default.

1.Open or close the smart photocell sensor by push when remote control is in setting condition.

2.When smart photocell sensor open, 2 Led indicators are on for choose photocell sensor setpoint on/off to light, when smart photocell sensor switch close, 1 Led indicators are on for choose daylight sensor threshold.

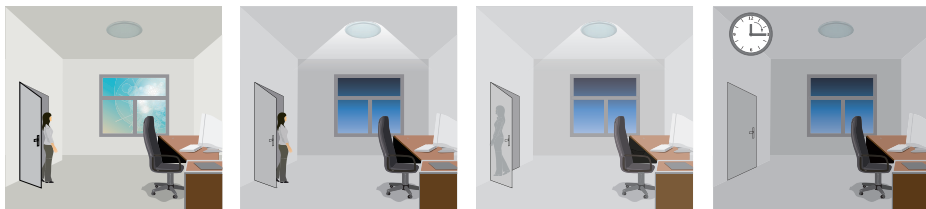
3.When the smart photocell sensor open, the stand-by time is only .

4.Smart photocell sensor takes place of normal outdoor photocell sensor switch, working independently.

5.See **Smart Photocell Function**.

Corridor Function

This function inside the motion sensor to achieve tri-level control, for some areas which require a light change notice before switch-off. The sensor offers 3 levels of light: 100%-->dimmed light (natural light is insufficient) -->off; and 2 periods of selectable waiting time: motion hold-time and stand-by period; Selectable daylight threshold and freedom of detection area.



With sufficient natural light, the light does not switch on when presence is detected.

With insufficient natural light, the sensor switches on the light automatically when presence is detected.

After hold-time, the light dims to stand-by level if the surrounding natural light is below the daylight threshold.

Light switches off automatically after the stand-by period elapses.

Note:if you choose STAND-BY DIM is 0,the stand-by period is 0,it is ON/OFF function.

Smart Photocell Function

open the smart photocell sensor by push when remote control is in setting condition.



The light switches on at 100% when there is movement detected.

The light dims to stand-by level after the hold-time.

The light remains in dimming level at night.

Settings on this demonstration:
Hold-time: 10min
Setpoint on:50lux
Setpoint off:300lux
Stand-by Dim: 10%
Stand-by period: +∞
(when the smart photocell sensor open, the stand-by time is only +∞)

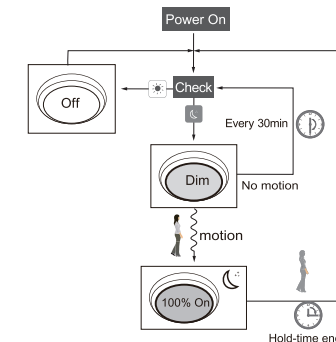
goes in cycle at night ...
100% on when movement detected, and dims to 10% in long absence.



When the natural light level exceeds setpoint off to light,the light will turn off even if when the space is occupied.



The light automatically turns on at 10% when natural light is insufficient (no motion).



Difference between Corridor Function and Smart Photocell Function.

- In corridor function, the daylight sensor works as threshold to assist motion sensor, in Photocell function, the daylight sensor works independently to motion sensor.
- Turn On light by detect motion when natural light is insufficient for corridor function, turn on light by natural light level exceeds setpoint on to light, do need to detect motion, for smart photocell function.
- Turn off light by stand-by time for corridor function, Turn off light by natural light level lower than setpoint off of light for smart photocell function.

About RESET and MODE(1,2,3,4)

The Remote control comes with 4 Scene MODES which are not default. You may make desired parameters and save as the new MODE(1,2,3,4) to configure the installed sensors.

RESET: all settings go back to settings of dip Switch in sensor.

SCENE MODES(1 2 3 4)

MODE	BRIGHTNESS	SENSITIVITY	HOLD TIME	DAYLIGHT SENSOR	STAND-BY DIM	STAND-BY TIME
MODE1						
MODE 2						
MODE 3						
MODE 4						

Change the MODES:

- press / / / button,the remote control Led indicators show existing parameters.
 - press to select the new parameters.
 - if want to open/close smart photocell sensor setpoint on/off to light , press ,select right setpoint on/off to light.
 - Press "OK" to confirm all parameters and saving in the mode.
- NOTE: if do not know existing parameters in / / / , repeat Step 1.

UPLOAD

The upload function allows you to configure the sensor with all parameters in one operation. You may select CURRENT SETTING parameters or the MODE for uploading. Current setting parameters or the MODE are displayed in Remote control .

Upload the current parameters to sensor(s),and duplicate the sensor parameters form one to another

- Press DISP button OR press / / / , all parameters are displayed in Remote control.
Note: check if all parameters are correct , if not, change them.
- Aim at the sensor and press "SEND" button , the light will be one time on and off , as confirm.
Note: if other sensors need same parameters, just aim at the sensor and press "SEND" button.