



DAYLIGHT HARVESTING & ON/OFF PHOTOCELL SENSORS

CEILING MOUNT • LOW VOLTAGE

OVERVIEW

BL2 SYSTEMS photocell sensors control lighting according to measured ambient lighting in a space. Basic on/off units signal a connected power pack to turn lights off when ambient levels are high enough that desired overall light levels are maintained.

Units with the daylight harvesting (dimming) option track a space's overall illumination and dim connected lighting to achieve energy savings. During times of high daylight contribution to a space, controlled artificial lighting will be gradually dimmed to a minimum dimmed level. During times of no or low daylight contribution, controlled artificial lighting will increase back up to its maximum level. The sensor can also be configured to signal a connected power pack to switch lighting off completely in maintained high daylight conditions. Additional configurable parameters include high & low trim levels and fade rates.

All photocells provide the option of selecting the ambient light threshold (e.g., setpoint) from a range of preset values or running an auto-selection mode where the unit will determine the setpoint based on the measured amount of light it is controlling.



FEATURES

- Auto-Setpoint Selection Mode
- Adjustable High & Low Dimming Trim Level
- Works Together w/ Low Voltage Occupancy Sensors
- Compact Size and Matte Finish
- Four Contractor Friendly Mounting Methods
- Mounting Nipple Attachment with Integrated Hole Saw

SPECIFICATIONS

ELECTRICAL

OPERATING VOLTAGE
12-24 VAC/VDC

CURRENT DRAW
4mA

DIMMING CAPACITY
50mA

DIMMING COMPATIBILITY
0-10 VDC Ballasts or Drivers
Compliant with IEC 60929 Annex E.2

PHYSICAL

SIZE
4.00" Diameter x 1.25" H
(10.16 x 3.17 cm)

WEIGHT
4.75 oz

COLOR
White

ENVIRONMENTAL

OPERATING TEMP
32°F to 122°F (0°C to 50°C)

RELATIVE HUMIDITY
0-95% Non-Condensing,
Indoor Use Only

OPERATIONAL MODES

Daylight Harvesting to Low Trim
Daylight Harvesting to Off
(requires power pack)
Photocell Override (On/ Off)
(requires power pack)

CODE COMPLIANCE

Sensors can be used to meet
ASHRAE 90.1, IECC, & Title 24
energy code requirements



ORDERING INFO

SAMPLE MODEL # BL2-250-1-D

	PRODUCT DESCRIPTION		VOLTAGE		OPTIONS	
BL2	Ceiling Mount Ambient Daylight Photocell	250	Low Voltage	1	Dimming / Daylight Harvesting (0-10V)	D

ACCESSORIES

BL2-299-JP - Ceiling Sensor Trim Ring for Mounting to Single Gang Mudring, Handy Box, or 4" Octagon Box

APPLICATIONS

There are two types of photocell operation; ON/OFF PHOTOCELL CONTROL and DAYLIGHT HARVESTING CONTROL (see descriptions below). A photocell sensor can be used by itself (e.g., STANDALONE operation) or together with low voltage occupancy sensors. Only one photocell sensor should be configured to control any particular group of lights.

ON/OFF PHOTOCELL CONTROL

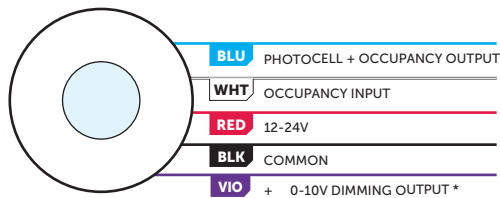
- Recommended for public spaces (hallways, entryways, etc) where fully switching lighting off/on will not be noticed.
- Photocell output (blue wire) will turn lights off if ambient light level surpasses threshold and back on if level drops.
- To prevent cycling of lights back on after lighting is turned off, a "deadband" level equal to the measured level of light being controlled is continuously maintained in the unit. For lighting to turn off the ambient light level must be higher than the sum of the setpoint and the deadband.

DAYLIGHT HARVESTING CONTROL

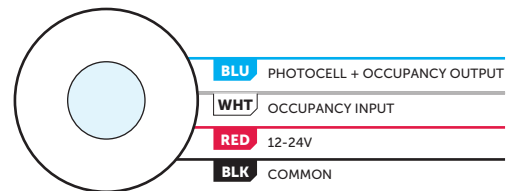
- Recommended for spaces where it is important to not distract occupants (e.g., offices, classrooms).
- Unit will gradually dim lighting in order to maximize energy savings while maintaining desired overall lighting level.
- After dimming to low trim level, unit can optionally be enabled to turn off lights completely.

WIRING

BASIC WIRING

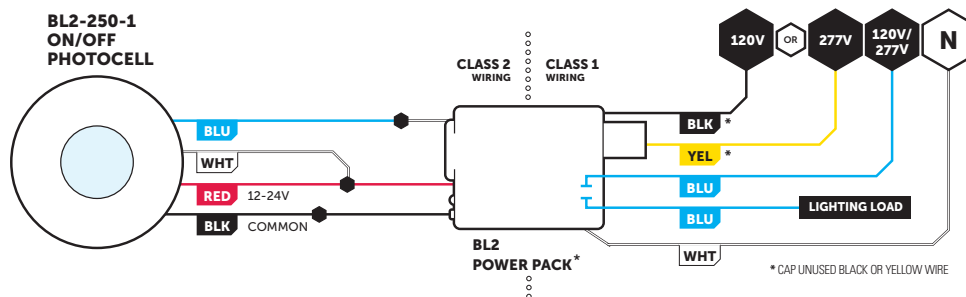


BL2-250-1-D
DAYLIGHT
HARVESTING
SENSOR



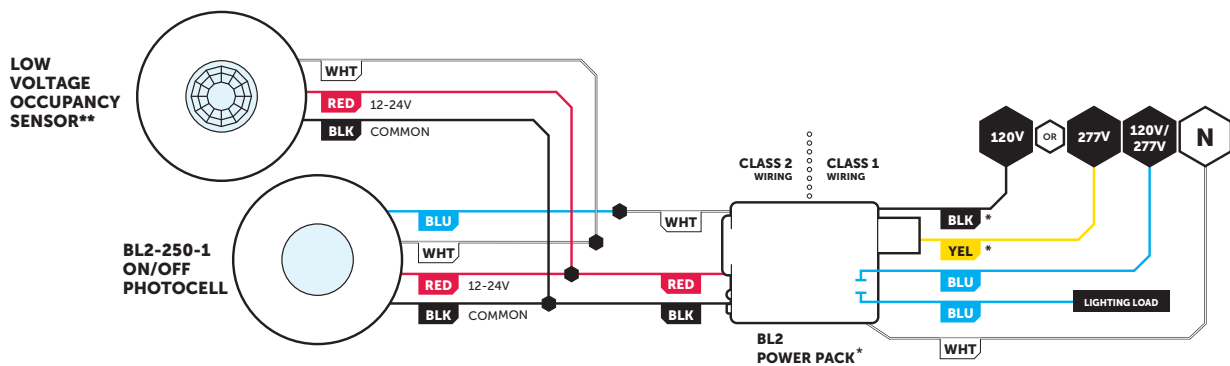
BL2-250-1
ON/OFF
PHOTOCELL

STANDALONE ON/OFF PHOTOCELL APPLICATION



* CAP UNUSED BLACK OR YELLOW WIRE

ON/OFF PHOTOCELL + OCCUPANCY APPLICATION

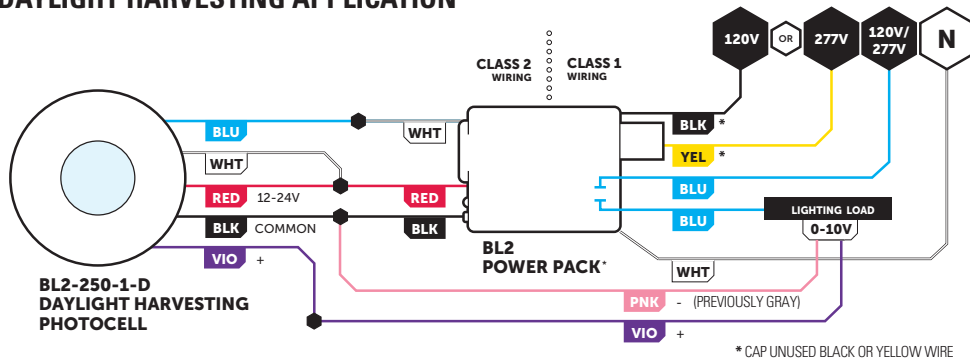


* CAP UNUSED BLACK OR YELLOW WIRE

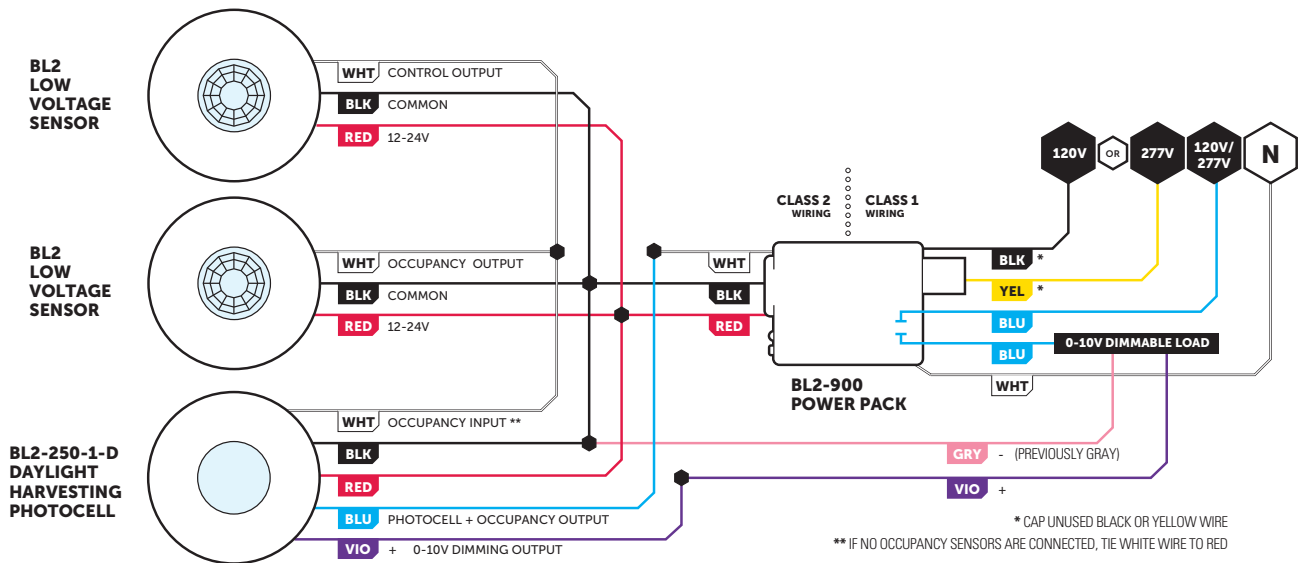
** IF NO OCCUPANCY SENSORS ARE PRESENT, CONNECT PHOTOCELL WHITE WIRE TO RED

WIRING (CONT.)

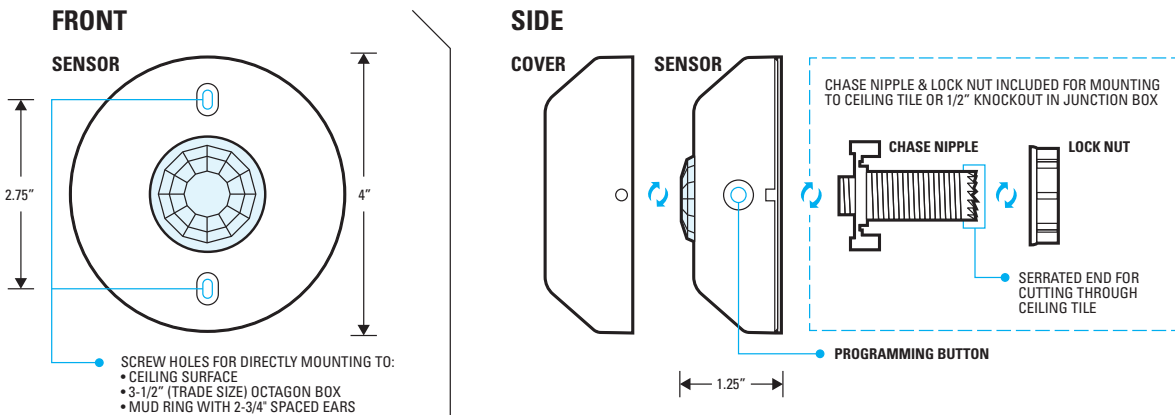
STANDALONE DAYLIGHT HARVESTING APPLICATION



DAYLIGHT HARVESTING + OCCUPANCY SENSOR(S) APPLICATION



INSTALLATION OPTIONS



Note: If mounting to a Single Gang Mudring, Handy Box, or 4" Octagon Box, a trim ring is required. Part Number: **BL2-299-JP**.

