Application Note

Greengate

Room Controller application for use with an Outdoor Contact Input Photocell

Overview

The Room Controller can utilize a standard Outdoor Contact Input Photocell (PPS-5) to provide On/Off control of the lighting loads based on a daylight threshold.

Description

The Room Controller low voltage interface ports provide +24 VDC to power the Keypad(s) Slider Station, Daylight Sensor and Occupancy Sensors(s). The external +24 VDC power is limited to 90mA. The Outdoor Contact Input Photocell draws a maximum of 35mA per sensor and is the largest consumer of external dc power.

Table 1. Maximum Current Consumption of Various Accessories

Accessory	Max Current Consumption (mA)
Keypad	3.00
Slider	2.00
Daylight Sensor*	8.00
Occupancy Sensor, PIR	10.00
Occupancy Sensor, dual tech	25.00
Network node	18.00
Outdoor Contact Input Photocell	35.00

*One daylight sensor is allowed per Room Controller panel

Implementation

Applications that require the use of an Outdoor Photocell to control exterior lighting can be achieved by using the Outdoor Contact Input Photocell (PPS-5) with a Room Controller. It is possible to also connect other controls to the Room Controller as long as the 90mA available power is not exceeded.

If using the Outdoor Contact Input Photocell, occupancy sensors cannot be used as their operation will conflict with the PPS-5 control logic. The Outdoor Contact Input Photocell (PPS-5) is connected to the Room Controller Input/Output Device (Model # OCC-RJ45) which connects to the Room Controller RJ45 port 3 or 4 via Cat 5 cable.

Cooper Lighting

by EATON

When the Outdoor Contact Input Photocell (PPS-5) does not detect adequate light levels it provides a closure to the Room Controller which will turn ON the desired lighting loads. When the Outdoor Contact Input Photocell (PPS-5) detects adequate ambient light levels it will automatically turn OFF all lighting loads

Wiring Information

Wire the Outdoor Contact Input Photocell (PPS-5) to the Room Controller Input/Output device (OCC-RJ45) as shown in **Figure 1** below.

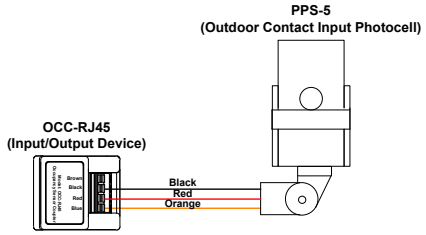

Figure 1. Input/Output Device Wiring

Connect the OCC-RJ45 to the Room Controller port 3 or port 4 as shown in **Figure 2** below.

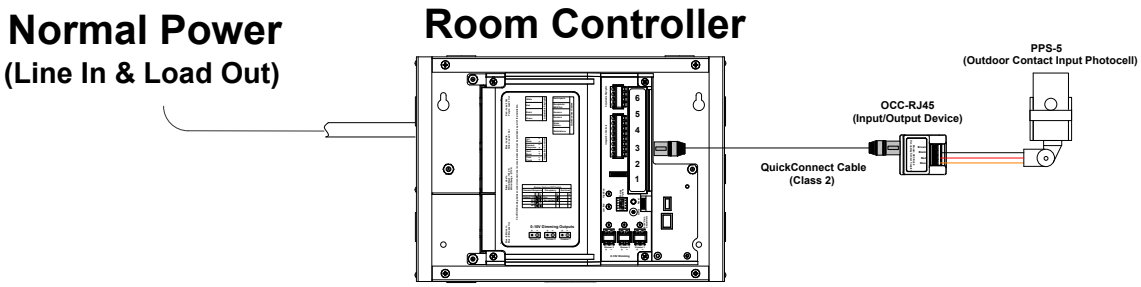

Figure 2. Connecting the OCC-RJ45 to the Room Controller

Programming Information

In order for the Outdoor Contact Input Photocell (PPS-5) to turn ON the lighting loads within the Room Controller the Room Controller must be put into the Occupancy Auto On Mode. This is done by moving DIP Switch #3 and #4 into the On (UP) position.

The Outdoor Contact Input Photocell (PPS-5) will now turn ON the lighting loads when the ambient light level is low and turn OFF the lighting loads with the ambient light level is high.

By default the ON scene is all relays ON and all dimmers to 100%. Use the Room Controller Personal Remote (HHPR-RC) to adjust the Automatic On scene to any desired light level.

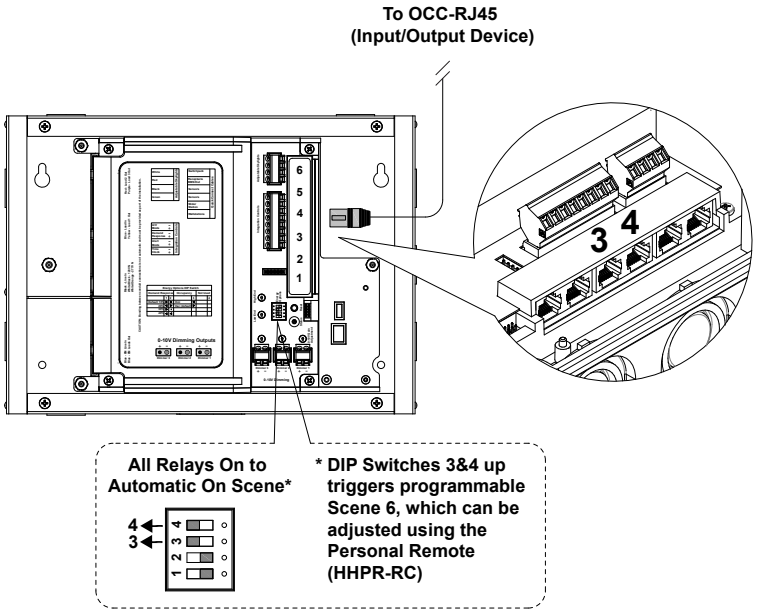

Figure 3. Room Controller Automatic ON Scene

Eaton
1000 Eaton Boulevard
Cleveland, OH 44122
United States
Eaton.com

Eaton's Cooper Controls Business
203 Cooper Circle
Peachtree City, GA
coopercontrol.com

Publication No. ACC140952
October 10, 2014

Powering Business Worldwide