

LEVITON

Applications Cookbook

Reverse Phase Power Extender (PE500)

Version 3.0

FOR REFERENCE ONLY

TABLE OF CONTENTS

PE500 SOLUTIONS COOKBOOK NOTES

LEVITON

GENERAL NOTES

1. Refer to manufacturer's data sheets and installation instructions prior to installation
2. Line feed 120/230/277VAC, 60HZ
3. Ground not shown. Ground devices per applicable national and local codes and best practices.
4. For emergency power situations, illustrations assume transfer switch by others upstream of shown devices.
5. Line voltage load not to exceed contact rating per device specifications.
6. Power packs receiving separate feeds for switched loads and self power must have both feeds on the same phase
7. All low-voltage devices consume current. . Device power budget is estimated for these details - additional power sources may be required. See product literature for power specifications
8. Maximum run length for analog wiring is 1000' @ #18 AWG
9. Sensors wired in parallel will cause line voltage relay closure when occupancy is detected by any unit
10. Devices in series requiring contact closure from a single device, (clock input, demand response, emergency, etc.) must follow these wiring conventions:
    - First device in a sequence provides the +V to the triggering relay;
    - Signal from closure attached to all devices in sequence input;
    - COM from first device in sequence attached to COM on all devices in sequence
11. Applications requiring multiple power packs/power supplies at the same VDC:
    - +V must never be tied together between power packs/power supplies;
    - COM/DCC must be tied together to all power packs/power supplies and all powered devices
12. Ultrasonic ceiling mount sensors should be located a minimum of six (6) feet from HVAC supply/return vents
13. Trough mounted, pendant mounted, and pendant mounted indirect lighting sources affect the operation of locally mounted sensors. Contractor is responsible for adjusting sensor locations to allow for proper operation.
14. Contractor is responsible for proper sensitivity and time delay settings for non-adaptive products, following the manufacturer's recommended placement, and field verification of circuits with respect to power pack placement
15. Contractor is responsible for coordinating the operational options of sensors and power packs with the specific work requirements:
    - Work relevant energy code requirements affect circuits to be controlled and their control characteristics.
    - One power pack is required for each controlled circuit
    - Refer to power pack data sheet for power output and installation guide for maximum number of sensors connected to a power pack
    - If multiple circuits are to be controlled by a sensor, auxiliary relays may be used in conjunction with a power pack
16. Ceiling sensors mounted over doorways should be placed one (1) foot inside the threshold
17. Up to 100 Mark VII style ballasts may be controlled per daylighting zone by miniZ
18. All relays shown in de-energized state
19. Individually cap off unused leads
20. One-line parenthesis use:
    - <X> — Function
    - [#} — Terminal
21. Plug load control — commercial receptacle P/Ns:

    Standard duplex:

    Split Control (1 outlet) CRO15-1PX, CRO20-1PX

    Full Control (2 outlets) CRO15-2PX, CRO20-2PX

    Decora:

    Split Control (1 outlet) 16252-1PX, 16352-1PX

    Full Control (2 outlets) 16252-2PX, 16352-2PX

22. Control Receptacle:
    - Quantity per applicable codes
    - Termination shown split receptacle. Termination per applicable codes.
    - Receptacle markings per applicable energy codes

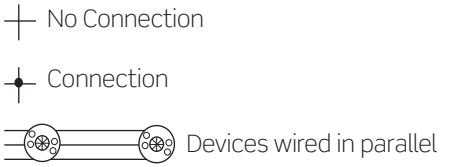
ABBREVIATIONS

LC Luma-CAN
LV Low Voltage
HV High Voltage Switch (Maintained)
LVM Low Voltage Switch (Momentary)
Equal to Leviton:
1081 (Toggle) or
56081 (Decora)
LVT Low Voltage Switch (Maintained)
Equal to Leviton:
12021-2 (Toggle) or
56021-2 (Decora)
LV2 IRC Low Voltage Switch
Equal to Leviton:
RLVSW-1LW (1 button) or
RLVSW-2LW (2 button) or
RLVSW-4LW (4 button)

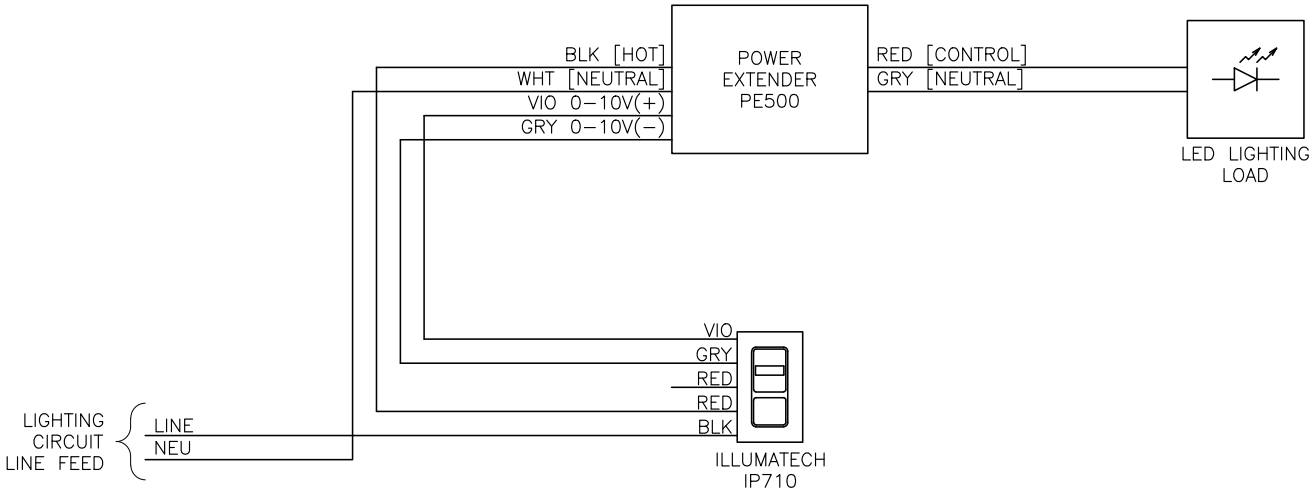
UON Unless Otherwise Noted

BLK Black
WHT White
BLU Blue
YEL Yellow
ORG Orange
VIO Violet
BRN Brown

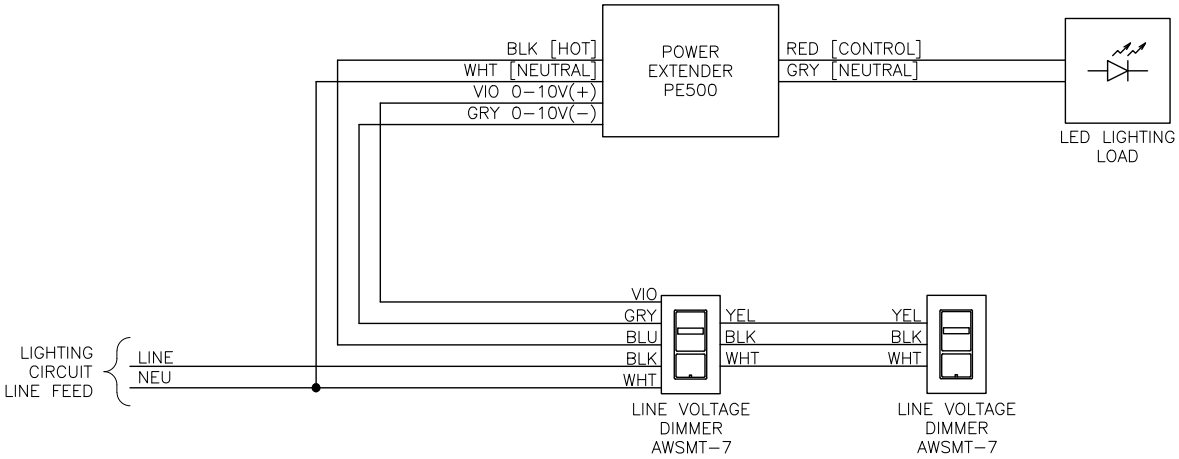
SYMBOLS



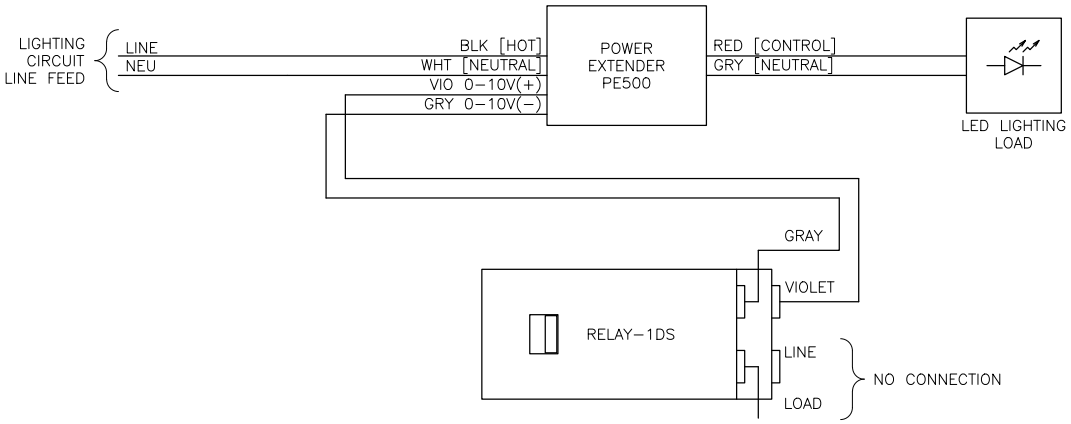
PE500, ILLUMATECH IP710, REVERSE PHASE DIMMED FIXTURES



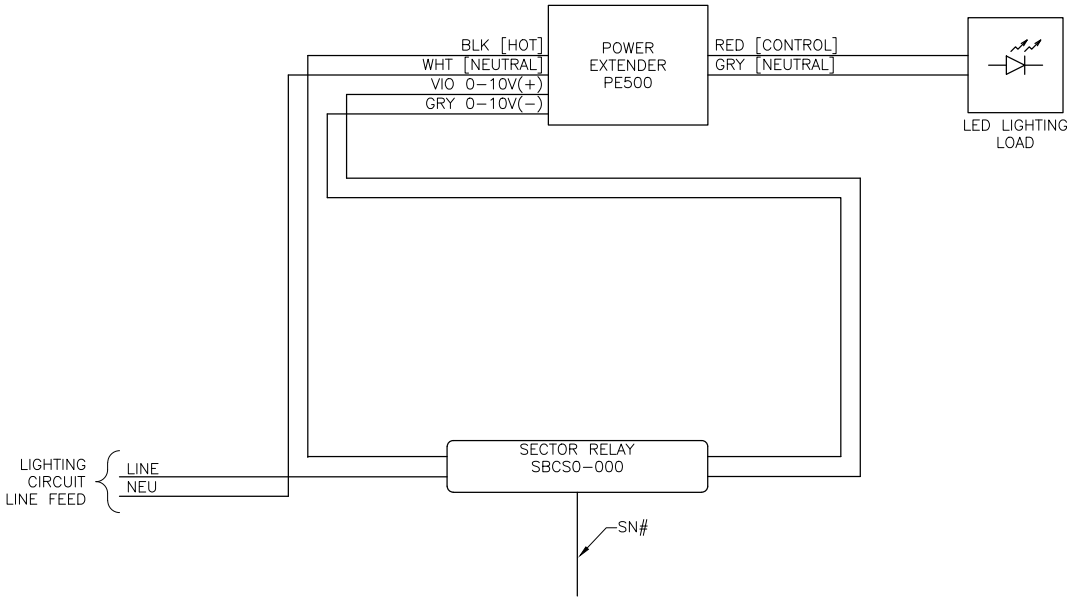
UL924 BYPASS, PE500, ILLUMATECH IP710, REVERSE PHASE DIMMED FIXTURES



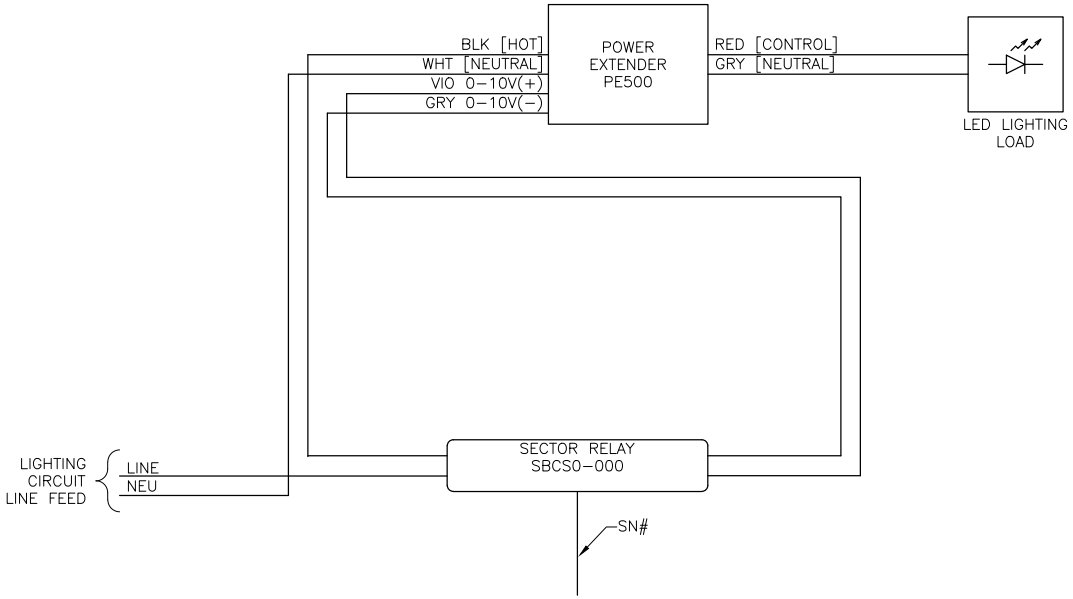
PE500, RENOIR II, REVERSE PHASE DIMMED FIXTURES



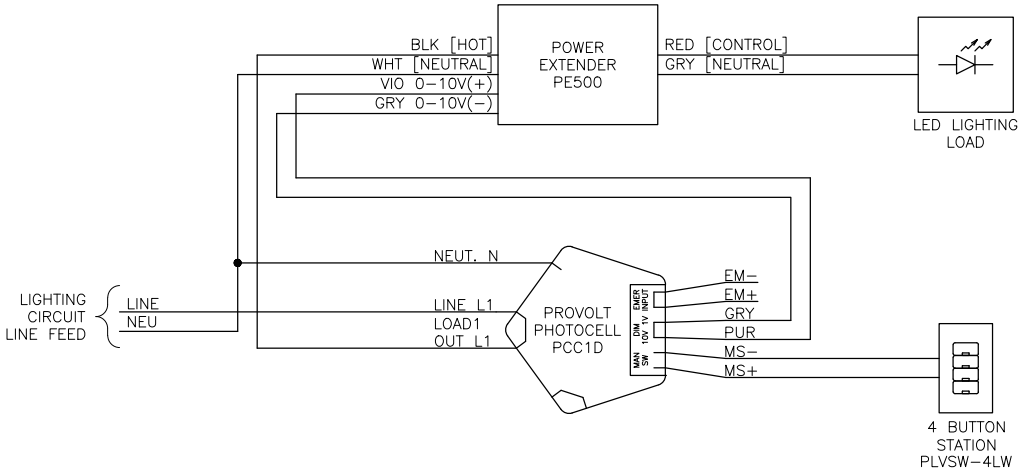
PE500, GREENMAX DIMMING RELAYS, REVERSE PHASE DIMMED FIXTURES



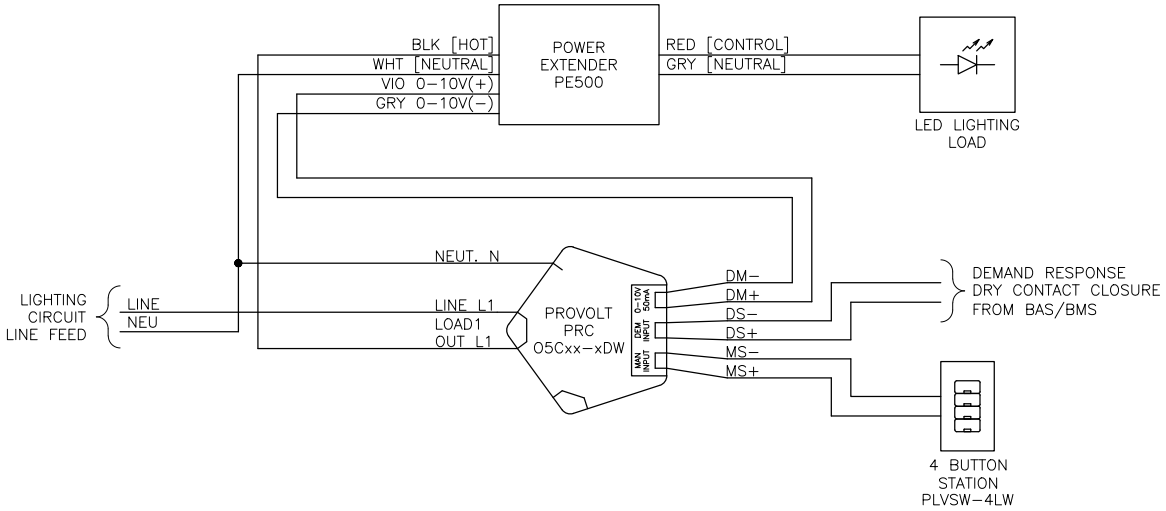
PE500, SECTOR RELAYS, REVERSE PHASE DIMMED FIXTURES



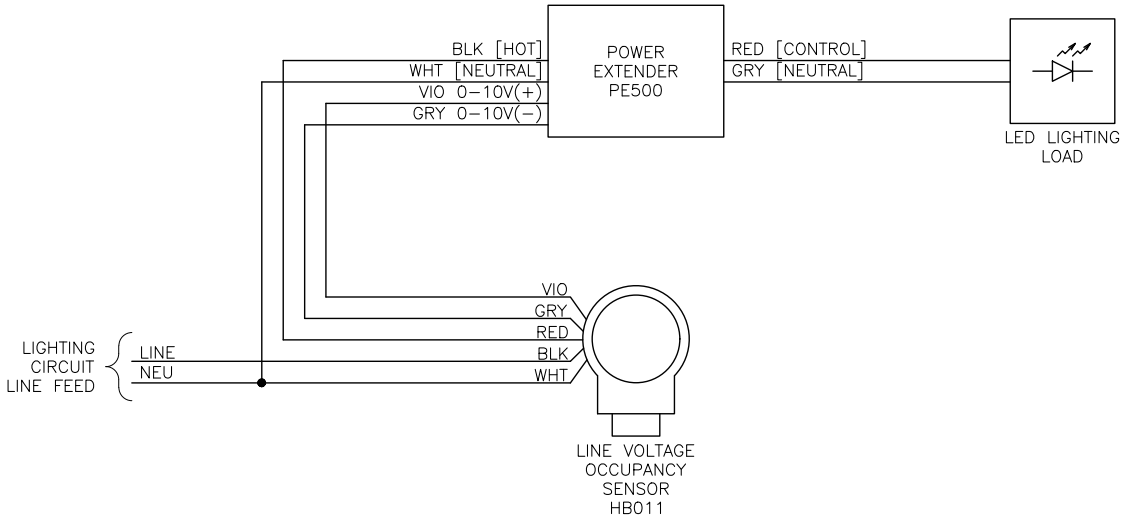
PE500, PROVOLT PHOTOCELL, REVERSE PHASE DIMMED FIXTURES



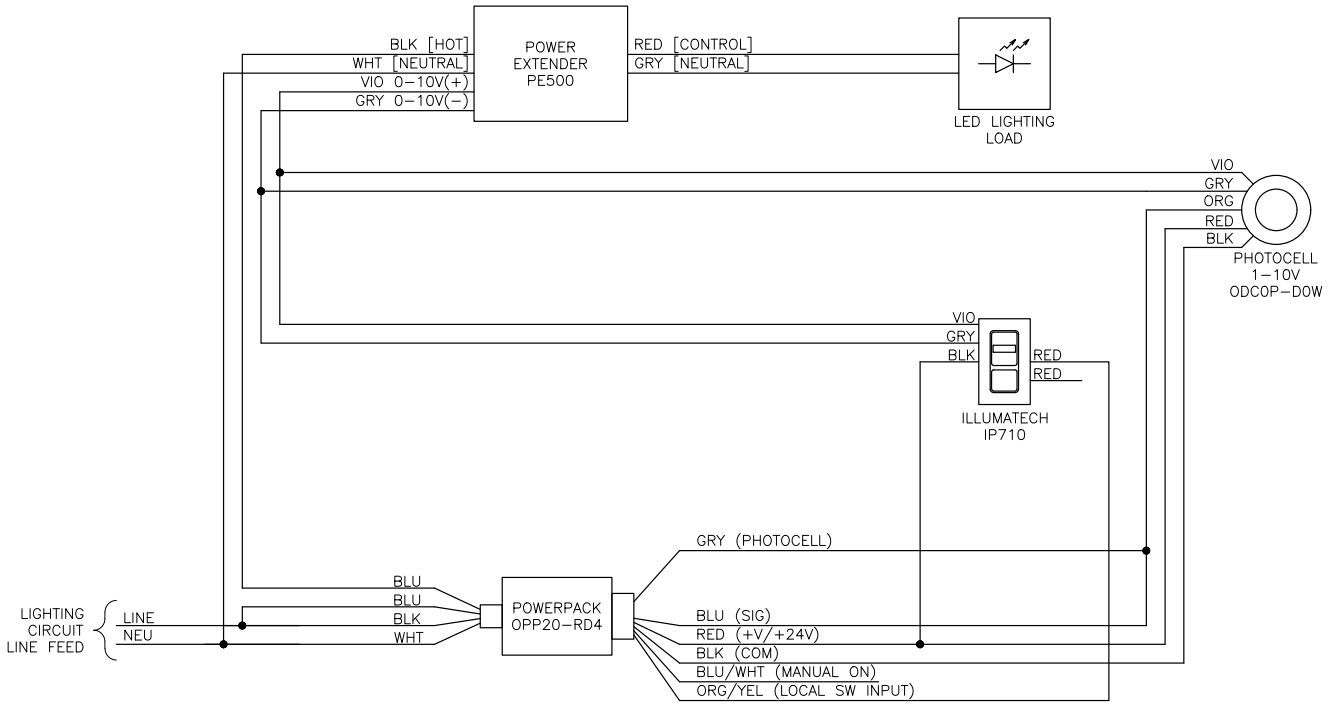
PE500, PROVOLT ROOM CONTROLLER, REVERSE PHASE DIMMED FIXTURES



PE500 HIGH BAY DIMMING SENSOR, REVERSE PHASE DIMMED FIXTURES

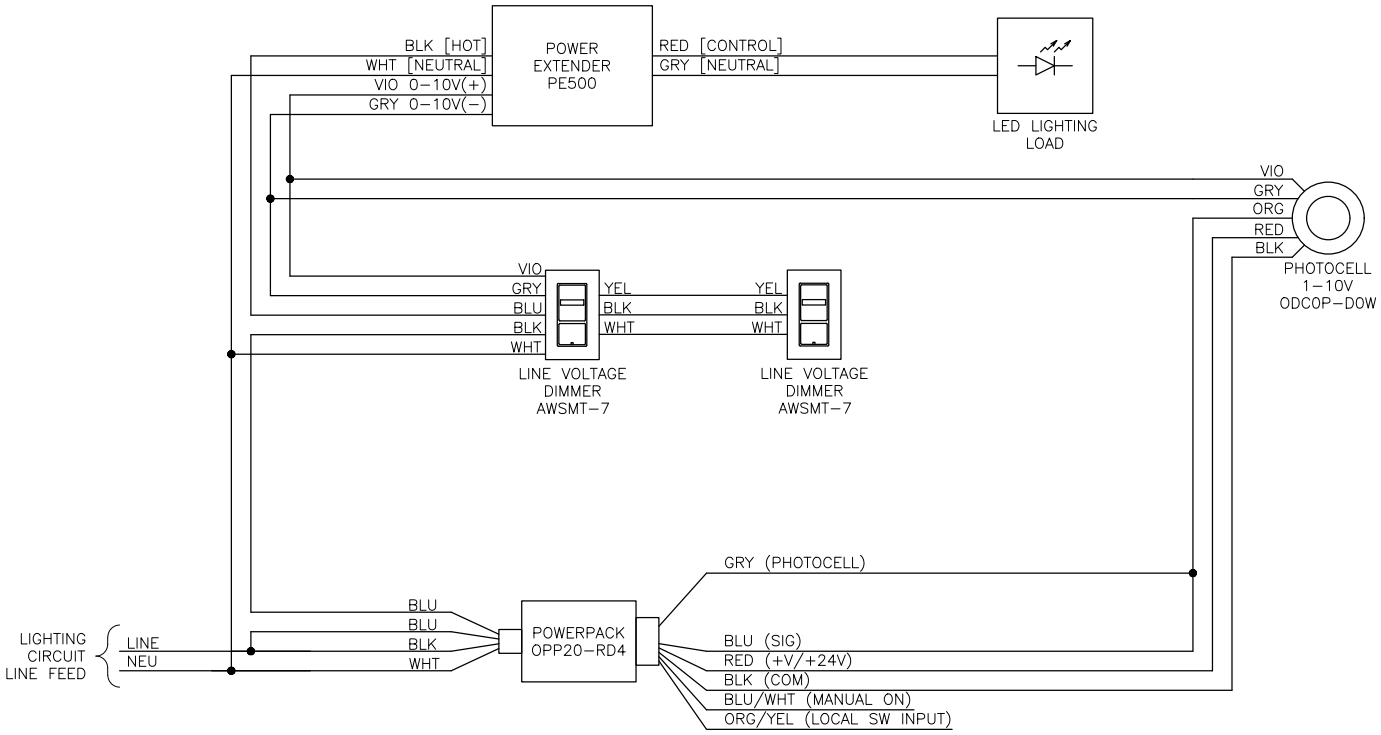


PE500, LOW VOLTAGE DIMMING PHOTOCELL, REVERSE PHASE DIMMED FIXTURES



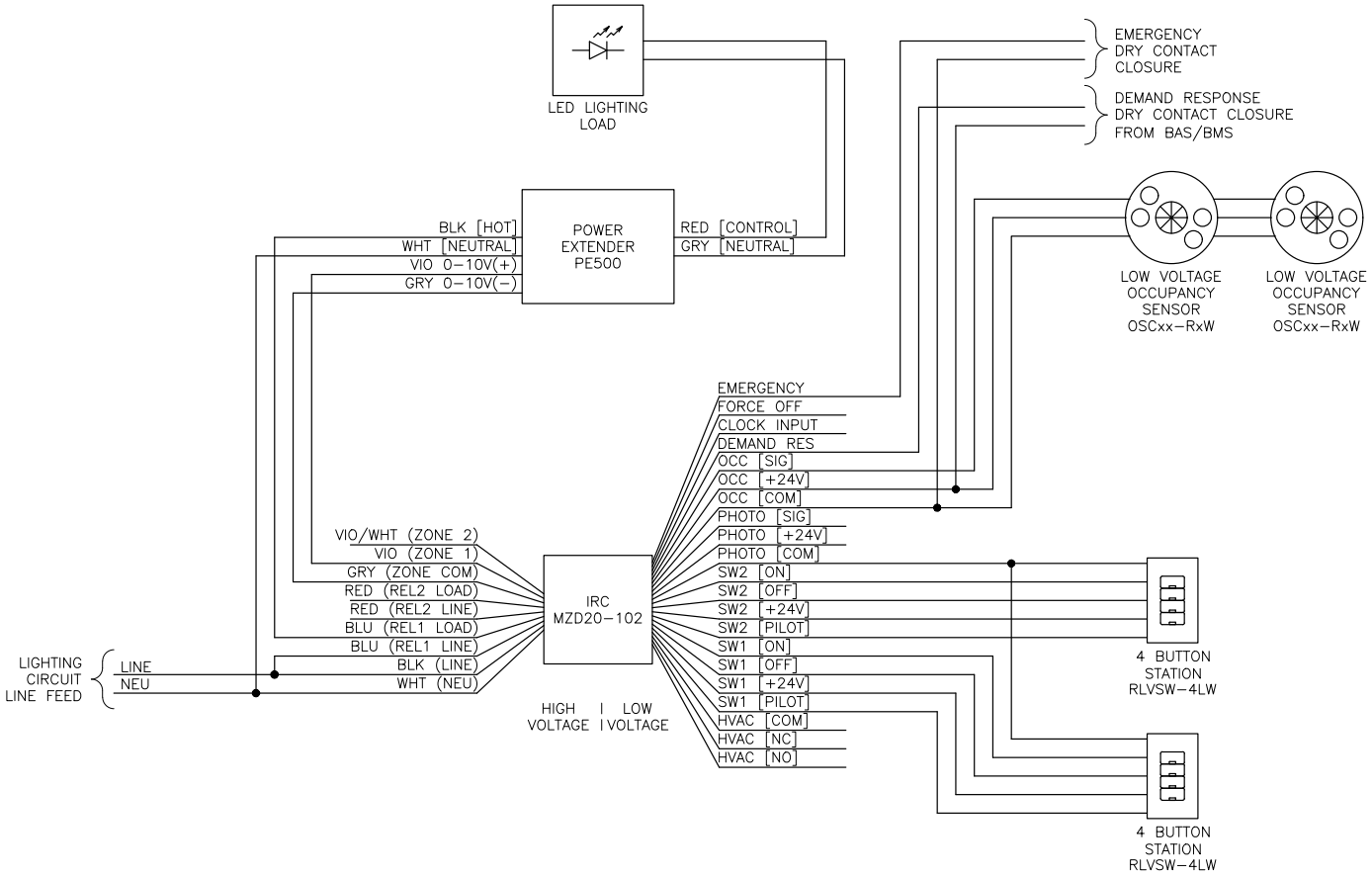
NOTE: For 0-10V control, lowest lighting level takes precedence

PE500, HIGH VOLTAGE DIMMING WITH PHOTOCELL, REVERSE PHASE DIMMED FIXTURES

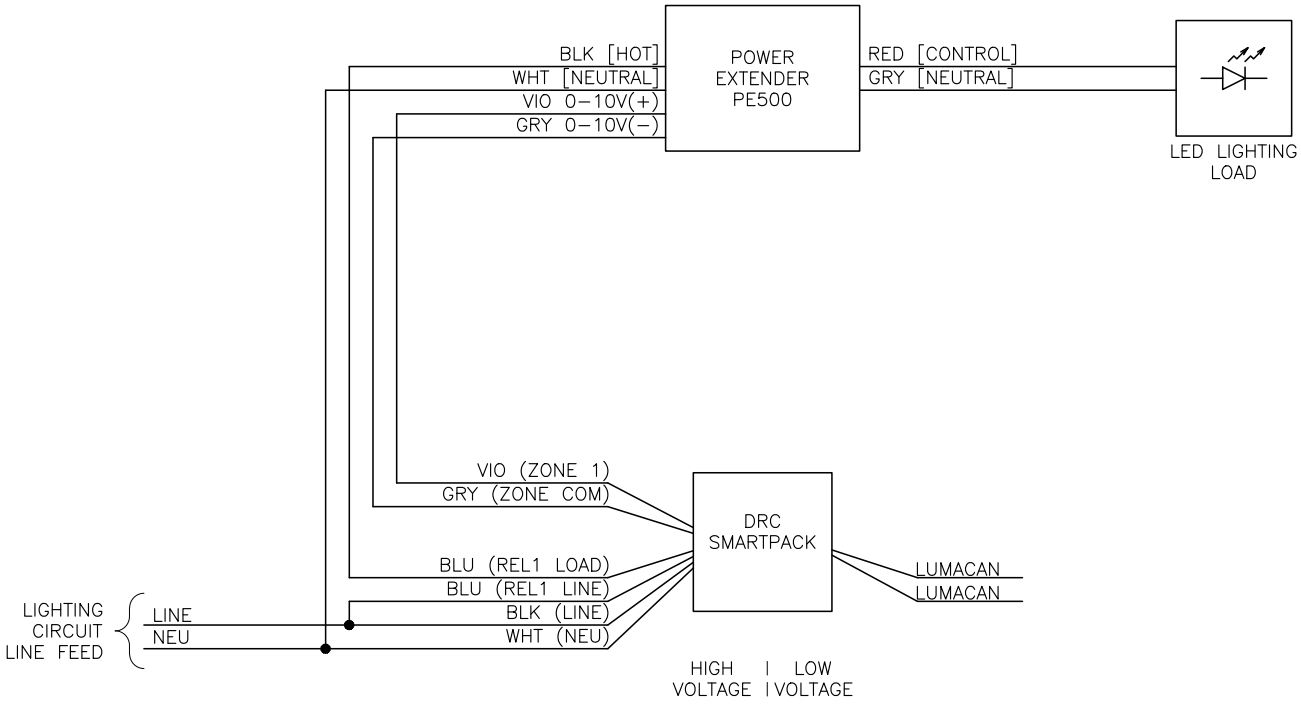


NOTE: For 0-10V control, lowest lighting level takes precedence

PE500, IRC, REVERSE PHASE DIMMED FIXTURES



PE500, DRC SMART PACK, REVERSE PHASE DIMMED FIXTURES



Leviton Manufacturing Co., Inc. Global Headquarters
201 North Service Road, Melville, NY 11747-3138 **tel** 800-323-8920 **fax** 800-832-9538 **tech line** (8:30AM-7:00PM ET Mon-Fri) 800-824-3005

Leviton Manufacturing Co., Inc. Energy Management, Controls and Automation
20497 SW Teton Avenue, Tualatin, OR 97062 tel 800-736-6682 **fax** 503-404-5594 **tech line** (6:00AM-4:00PM PT Mon-Fri) 800-959-6004

Visit our Website at: www.leviton.com/architecturalcontrols

G-9820B/D17-aa
REV APR 2017