

## Installation Instructions

PLEASE READ AND FOLLOW ALL SAFETY INSTRUCTIONS.

This guide contains important information regarding installation and operation.

Please keep this guide for future reference.

## EX Series- LED Universal Retrofit Kit



### WARNING:

- RISK OF SHOCK. DISCONNECT POWER BEFORE INSTALLATION.
- WARNING: RISK OF FIRE OR ELECTRIC SHOCK. system must be installed by qualified electrician in accordance with NEC or local electrical code. If not qualified, do not attempt installation; please contact qualified electrician.
- Risk of fire or electric shock. Not for direct replacement of fluorescent lamps. Use only with Espen designated power supply.
- Risk of fire or electric shock. Luminaire wiring or other electrical parts may be damaged when installing retrofit. Check for enclosed wiring and components.
- Risk of fire or electric shock. Existing wiring may be damaged before installing. Check existing wire for damage before retrofit installation.

### NOTES:

The following LED module are to be installed in luminaires with the following minimum compartment dimensions:

Module Model	Min. Compartment Dimensions
EX02-X09-X1-UXX	566 x 38 x 22 mm
EX03-X12-X1-UXX	846 x 38 x 22 mm
EX04-X13-X1-UXX	1126 x 38 x 22 mm
EX04-X25-N1-UXX	1126 x 38 x 22 mm
EX04-X55-NX-UXX	1126 x 38 x 22 mm

The modules have been evaluated for use in surface mount wall and ceiling luminaires, outdoor luminaires with compartments protected from weather, only open, surface-mounted luminaires, fully enclosed luminaires with minimum lamp compartment shown above. They have been evaluated for use in totally enclosed, recessed luminaires.

## INSTALLATION INSTRUCTIONS:

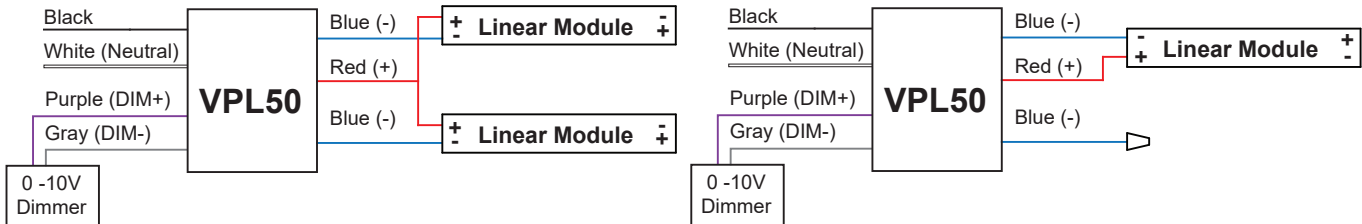
1. Turn Disconnect or turn power OFF from the main circuit breaker.
2. Remove lens or diffuser (if applicable).
3. Remove existing fluorescent lamps from the luminaire.
4. Cut all wires connected to ballast and remove ballast.
5. Install the LED driver in place of the ballast. Ensure that the LED driver is the correct driver for the LED lamps being used (refer to driver label or product specification).
6. Connect Black (line) wire and White (neutral) wire to corresponding wires on LED Driver (to bypass dual-relay dimming function connect Black line to both Black and Black/White striped leads on LED Driver).
7. If installing linear module kit, please use screws to mount the LED module on the fixture.
8. Follow wiring diagrams on instruction sheet to connect blue and red leads to the lamp holders according to number of lamps being installed. Blue (negative) and red (positive) leads should be on opposite ends of each lamp.
9. Close wiring compartment.
10. FOR MODULES: Mount modules on luminaire housing with screws provided.
11. Place lens or diffuser back in place (if applicable)
12. Switch power ON

## WIRING DIAGRAMS

For module EX02-X09-X1-UXX, EX03-X12-X18-UXX, EX04-X13-X1-UXX

Two-module configuration

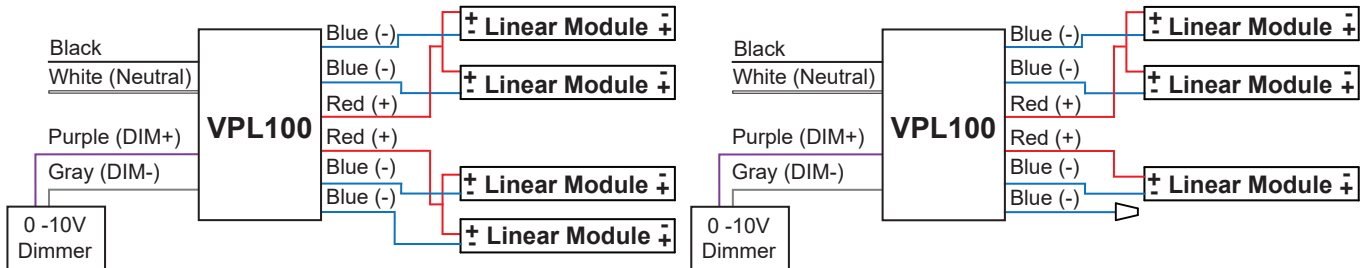
One-module configuration



For module EX02-X09-X1-UXX, EX03-X12-X18-UXX, EX04-X13-X1-UXX

Four-module configuration

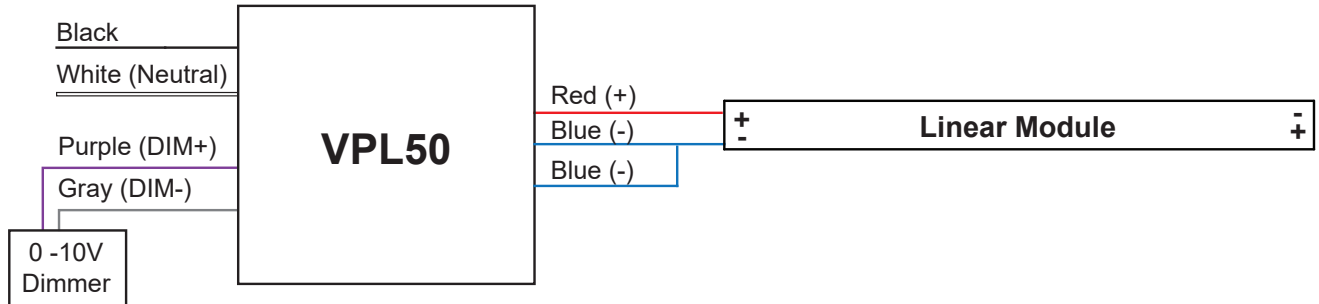
Three-module configuration



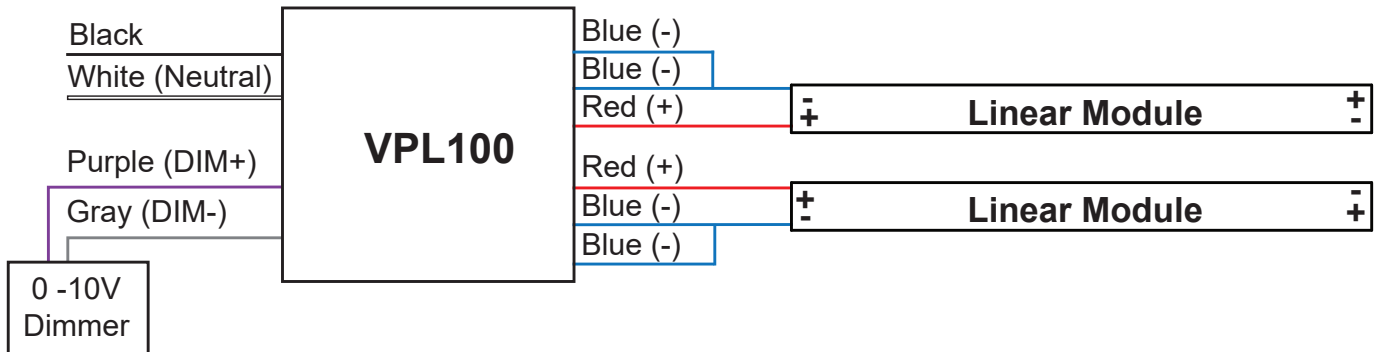
## WIRING DIAGRAMS

For module EX04-X25-N1-UXX

Below wiring for EX04-125-N1-UXX only:



Below wiring for kit EX04-225-N1-UXX only:



For module EX04-X55-NX-UXX

Below wiring for kit EX04-155-NX-UXX only:

