ON-PPU-302

OS-NET Power Pack with 0-10V Dim Control

Flexibility • Functionality • Simplicity

OVERVIEW

The ON-PPU-302 is an OS-NET enabled power pack featuring 0-10V dim control output and state-of-the-art wireless mesh network capability for achieving top-notch intelligent lighting control. This power pack not only supplies 24 VDC power for IR-TEC's low voltage occupancy sensors, but also provides line voltage switching up to 20A with 0-10V dim control output upon receiving contact signals from wired sensors, or wireless commands from networked OS-NET devices of the same group. A specific radio command will be transmitted to other OS-NET devices for executing coordinated group control whenever ON-PPU-302 receives control signal from a wired sensor. Each ON-PPU-302 can be a member of up to 4 groups.

This device can be attached to a junction box, cable tray, or fixture through a 1/2" knockout with the designed threaded nipple and locknut. Subject to the control setting, the ON-PPU-302 can be programmed to provide occupancy or vacancy sensing control to the connected light. Numerous control settings, including burn-in time, delay time, group/ungroup, lock/unlock…etc. can be intuitively configured via SRP-281 2-way handheld remote programmer.

With ON-PPU-302, you can easily enable wireless smart lighting control with IR-TEC low voltage occupancy sensors. Zone lighting now become very easy and can be done at any junction box or fixture. Combining the ON-PPU-302 with the OS-NET Button offers unparalleled flexibility and ease for room control that requires dimming capability. Whether it is a new construction or retrofit project, OS-NET wireless smart lighting control solution will save time and cost in installation, commissioning, and user adoption with ease.

FEATURES

- OS-NET enabled power pack & load controller
- 120/277VAC universal line voltage operation
- Class 2 switching mode 24VDC power supply
- Controls lighting and load switching up to 20A
- 0-10V control output for dimming control
- Accept dry contact or active-low open collector
- 2-way IR remote programmable control settings
- One device can be assigned to max four groups
- Dual color LED indicates network linkage status
- Zero-crossing relay contacts switching control

APPLICATION

☑ Lighting Control with 0-10V

APPLICABLE REMOTE (order separately)

Model	Description	Remarks
SRP-281	OS-NET Remote Programmer	Full functionality

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IR-TEC Specializing in Building Sensors

ON-PPU-302

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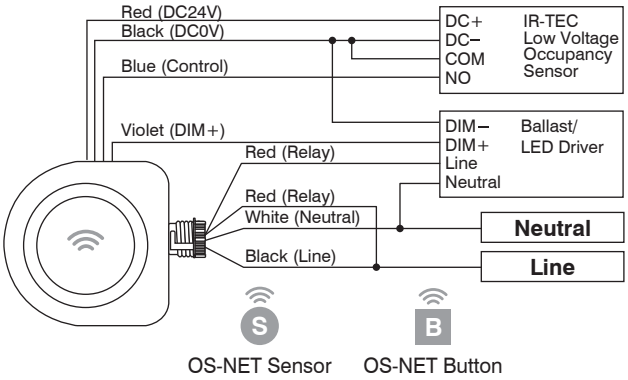
CONTROL SCHEMES

The ON-PPU-302 can be easily programmed via SRP-281 to control the connected lighting in occupancy or vacancy sensing control.

CONTROL	Description
ON/OFF	The load will be switched ON when ON-PPU-302 receives 1) control signal from a wired low voltage occupancy sensor, or 2) wireless command from a grouped OS-NET Device, and switched OFF when programmed delay time elapses or receives the OFF-command from a grouped OS-NET Button. If load was switched OFF via OFF-command, ON-PPU-302 will operate under presentation mode, the load will remain OFF if motion is detected before the time delay elapse. If no motion has been detected and the time delay elapsed, the ON-PPU-302 will resume to above auto-ON, auto-OFF operation.
OSO	OSO refers to Occupancy Sensing Control. The load will be switched ON when ON-PPU-302 receives 1) control signal from a wired low voltage occupancy sensor, or 2) wireless command from a grouped OS-NET Device, and reduce lighting to LOW DIM level when programmed delay time elapses. If load was switched OFF via OFF-command, ON-PPU-302 will operate under presentation mode, the load will remain OFF if motion is detected before the time delay elapse. If no motion has been detected and the time delay elapsed, the ON-PPU-302 will resume to OSO control.
OSLATO	OSLATO is an occupancy sensing control scheme that require maintaining LOW DIM level for a period of time before shutting OFF. The load will be switched ON when ON-PPU-302 receives 1) control signal from a wired low voltage occupancy sensor, or 2) wireless command from a grouped OS-NET Device. After the delay time elapsed, lighting output will be reduced to LOW DIM level for a period of TIME OFF delay before shutoff. If load was switched OFF via OFF-command, ON-PPU-302 will operate under presentation mode, the load will remain OFF if motion is detected before the time delay elapse. If no motion has been detected and the time delay elapsed, the ON-PPU-302 will resume to OSLATO control.
VSC	VSC refers to Vacancy Sensing Control. This control requires user to turn ON the load by pressing a grouped OS-NET Button, and the ON-PPU-302 control the connected lighting as per OSLATO scheme. ON-PPU-302 will turn OFF the load when programmed delay time elapses or receives the OFF-command from a grouped OS-NET Button.

WIRING DIAGRAMS



NOTE: For Vacancy Sensing Control (VSC), at least one OS-NET Button should be installed and grouped with the ON-PPU-302 to enable manual-on control.

SPECIFICATIONS

Power supply	120/277 VAC, 60 Hz
DC power output	24 V, 100 mA max.
Maximum load	20A @120/277 VAC, LED/ballast
Control signal	Dry contact or active low open collector
Dim control	0-10V, sink <25mA
Wireless protocol	Modified Zigbee Light Link (ZLL)
Radio frequency	2.4 GHz
Radio range	Typical **12 m (40 ft.) @ indoor
Radio power output	4.60dBm
Remote range	Typ. 5 m (16 ft), indoor with no backlight
Type of control	*Electronic Operated, Independently Mounted
Action Type	*Automatic, Type 1
Ext. Pollution Situation	Degree 2
Impulse Voltage	4000 V Max.
Op. humidity	Max 95% RH
Op. temperature	-20°C ~ 55°C (-4°F ~ 122°F)
Dimensions	111 x 90 x 46 mm (4.37" x 3.54" x 1.80")

*Based on UL 60730-1 STD provisions.
**Actual radio range may differ depending on environmental conditions.