BOS-515 series

Low Voltage Occupancy Sensor

TRANS

OVERVIEW

The BOS-515 series member of the TRANS family is a low voltage occupancy sensor designed to signal the occupancy status for area lighting or HVAC control for energy efficient building management systems.

This occupancy sensor employs a cutting edge quad element pyroelectric infrared sensor to provide omni-directional sensing capability of the occupants presence and movements. The Accu-Set digital potentiometer makes the sensor setting work easier, faster and more accurate than conventional analog potentiometers.

Like all sensors in the TRANS family, the BOS-515 series is available with various mounting options and interchangeable lenses. This provides a second-to-none design and complete installation flexibility. The sensor is designed to operate in the coldest of environments, down to -40°F/°C.

The BOS-515 series comes with an optional ambient light sensor (ALS) to inhibit the lighting if ambient light levels are higher than required. The BOS-515 is designed to provide complete occupancy sensing for automatic lighting/HVAC control, ease of use, and the simplest installation.

FEATURES

- Omni-directional quad element infrared sensor
- 12~24VAC/DC low voltage power supply
- Normally open dry contact relay signal output
- Accu-Set digital potentiometer sensor settings
- Walk test and sensing status LED indicator
- Push-in wire locking terminals for easy wiring
- Available with or without photocell sensor
- Available with variety of mounting options
- Available with interchangeable lens options

APPLICATION

- ☑ Light Control
- ☑ HVAC Control
- ☑ Building Management

The BOS-515 series can be used to control area lighting or HVAC with an IR-TEC power pack or in connection with building management systems. Various control modes can be achieved by different wiring connections. Basic wiring diagrams are included. Consult with an IR-TEC team member if a more complex wiring diagram is required.

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AUXILIARY OPTIONS

BOS-515**S**xx – Ambient light sensor integrated
BOS-515**N**xx – No ambient light sensor integrated

MOUNTING OPTIONS

The BOS-515xXx series can be mounted on the ceiling or attached to a fixture by combining a specific mounting bracket (if applicable) from the chart below. The bracket will be shipped with the sensor when ordered with the respective code. Codes F and W allow the BOS-515x**X**x to be directly integrated with OEM light fixtures in any environment.

Code	Mounting Option	Mounting Bracket
F	Fixture Integrated	---
W	IP-66 Fixture Integrated	---
E	Fixture External	EMB-500
P	IP-66 Fixture External	PMB-500
S	Ceiling Surface	SMB-500
C	Junction Box	CMB-500
R	Ceiling Recess	RMB-500

LENS OPTIONS

The BOS-515xx**X** series is available with the following lens options which provide different coverage at different mounting heights (H). When adding the lens code, the lens is then automatically shipped with the sensor.
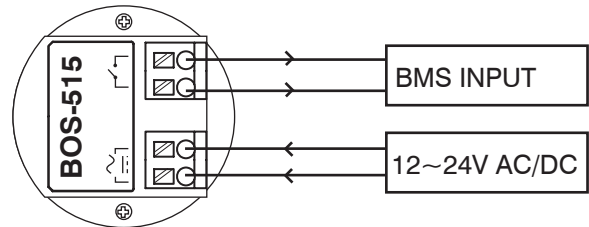
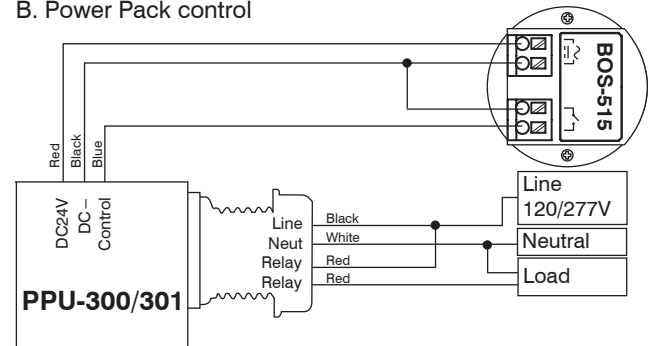|	Lens	Shape	Mounting Height		Coverage
A	Standard	Cone	8~15 ft.	2.4~4.5m	2X height
B	Extra wide	Cone	8~10 ft.	2.4~3.0m	6X height
C	High bay	Cone	15~30 ft.	4.5~9.0m	3X height
D	Standard	Round	8~20 ft.	2.4~6.0m	2X height
F	Extra wide	Dome	8~20 ft.	2.4~6.0m	4X height
G	Aisle way	Arch	8~40 ft.	2.4~12.0m	3X height
H	High bay	Dome	30~50 ft.	9.0~15.0m	1X height
L	Long aisle	Arch	8~10 ft.	2.4~3.0 m	6X height

Example: BOS-515NWA

This sensor would come with no ambient light sensor and lens with standard detection for wet location control. Specific mounting bracket or lens may be order separately if needed. For help selecting sensors with proper mounting and lens options, please visit www.irtec.com, send your inquiry to info@irtec.com or contact an IR-TEC team member directly.

WIRING DIAGRAM

A. Building Management System control

B. Power Pack control

NOTE: Each IR-TEC PPU-300/301 power pack can supply power for up to 6 BOS-515 sensors. When more sensors are connected, multiple power packs may be required.

SPECIFICATIONS

Power supply	12~24 VAC/DC ±10%
Current drain	10/24 mA @ 24 VDC, vacant/occupied
Signal output	Form A relay, NO, dry contact
Infrared sensor	Omni-directional quad element pyroelectric
Detectable speed	1~10 ft./sec. (0.3~3m/sec.)
Mounting height	Subject to the lens type applied
Detection range	Subject to the lens applied and height
ALS setting	BOS-515Sxx: 24Hr/ 5/10/30/50/100/200 lux*
ON delay setting	BOS-515Nxx: 0/5"/10"/15"/30"/1'/2'
OFF delay setting	T/1'/3'/5'/10'/20'/30', T=2 sec. for testing
Op. humidity	Max. 95% RH
Op. temperature	-40°F~131°F- (40°C~55°C)
Dimensions	Ø2.36"x H1.45" (Ø60 x H37mm)

*10 lux equals to approximately 1 ft. candle