Occupancy Sensor Selection and Placement
Specifier Guide

	Small Office (<10'x12')	Large Office (>10'x12')	Small Conference Room	Large Conference Room	Classroom	Music/Art Room, Etc., Ceiling <8'-12'	Music/Art Room, Etc., Ceiling >8'-12'
Sensor Solution	OSC05-RMW	OSC10-RMW	OSC10-RMW	OSC20-RMW	OSC20-RMW	OSC20-RMW	OSW12-RMW
Placement	Ceiling mount above entry facing inward	Centrally mounted on ceiling	Centrally mounted on ceiling	Centrally mounted on ceiling	Centrally mounted on ceiling	Centrally mounted on ceiling	Wall mounted in each room corner at 10' AFF at mounting location facing 45° inward
Notes	Sensor should face so that IR beams do not go outside of room, but occupant crosses beams when entering. Maximize exposure to minor motion area.	Maximize exposure to minor motion area at workplace.	Rooms over 30' long, add additional sensor. Maximize exposure to minor motion area at workspace.	Rooms over 30' long, add additional sensor. Maximize exposure to minor motion area at workspace.	Rooms over 30' long, add additional sensor. Maximize exposure to minor motion area at workspace.	Rooms over 30' long, add additional sensor. Maximize exposure to minor motion area at workplace. Add more sensors to overcome obstructions.	Rooms with wall lengths over 30', add additional sensor every 30' facing into room. Maximize exposure to minor motion area at workspace.

	Corridors	Stairwells	Restrooms (Single Occupant)	Restrooms (Small Multi-Stall)	Restrooms (Large Multi-Stall)	Library/Shelf Stacks (Ceiling <12')	Library/Shelf Stacks (Ceiling >12')
Sensor Solution	OSC15-RIW	OSWWV-RIW	OSC05-RUW	OSC10-RUW	OSC20-RUW	OSC20-RUW	OSFHP-ILW
Placement	Ceiling mount, placed to bypass obstructions	Place 1 at each landing, entry and egress	Ceiling mount above entry facing inward	Centrally mounted on ceiling	Centrally mounted on ceiling	In aisles and over open areas	Mounted at fixture or other location
Notes	Space at 35' and stagger along walls in hallway to maximize infrared beam crossing by occupants entering area	--	Face inward such that ultrasonic field does not go outside of room	--	--	Stagger to reduce close proximity and prevent cross-talk in close conditions such as aisles	Consider use of aisle lens for shelf/accessway application

	Warehouse	Storage Closet	Open Office	Walk-In Freezer/ Cooler	Outdoor/ Wet Location
Sensor Solution	OSFHP-ILW OSWLR-ILW	OSC04-RIW	OSC20-RUW	OSFHU-CTW	PS110 PS200
Placement	OSFHP mounted at fixture or other location OSWLR-RIW mounted on walls at aisle ends for alternate/extra coverage	Centrally mounted on ceiling to avoid common obstructions	Ceiling mounted and spaced at 30' apart	Fixture or surface mounted	Wall or pole mounted
Notes	Consider use of aisle lens for shelf/access way application.	--	Maximize exposure to minor motion area at workspace.	Cold storage applicable.	--

Occupancy Sensor Placement Notes

- Typical ceiling heights for standard ceiling-mounted sensors are 8'-12' unless otherwise noted
- Mount sensors at least 6' away from HVAC vents
- Sensors include a variety of adjustments for tuning performance to any given space
- Add sensors to overcome obstructions
- Ambient light hold-off feature is native to many occupancy sensors, and may natively meet specified daylight performance in some circumstances
- The sensor scenarios recommended are intended for typical standalone applications. Ceiling and wall-mounted (not wall) occupancy sensors require an OPP20 power pack per circuit or zone. The OPP20 is widely applicable to different voltage and control requirements including manual control
- The Provolt line of sensors is ideal for standalone scenarios where a power pack is not practical in a single sensor
- Recommended override low voltage switch for all scenarios is Leviton 56081
- Avoid designs that rely heavily on wallbox sensors (budgetary alternative only)—room contents are more likely to impede sensor's ability to detect occupants. Wallbox sensors including OSSMT and OSSMD are popular alternatives for small spaces that include single and dual relays, as well as photocell hold-off capability
- Most sensor models are available with auxiliary dry contact closure for BMS or lighting system integration
- Adding the ability to control receptacles based on occupancy/vacancy is easily achievable with low voltage sensors by adding an additional OPP20-0D2 power pack that is wired to trigger by room sensors, and 16252-2PW receptacles, which are marked per energy code requirements
- Relay panels can be used for large programmable system integration of override control, photocells, occupancy sensors, Title 24/ ASHRAE/IECC compliance, UL924 bypass, astronomical time clock, load shed, dimmed daylight harvesting, and BAS/BMS integration
- The Integrated Room Control (IRC) is ideal for small system integration of override control, photocells, occupancy sensors, Title 24/ ASHRAE/IECC compliance, dimmed daylight harvesting, demand response, load shed, partial-ON, external time clock and BAS/BMS integration
- Occupancy sensor recommendations are general guidelines—always comply with NEC, local codes and best practices
- Contact Leviton for questions about general occupancy sensors or free occupancy sensor layout services at oslayouts@leviton.com
- For other product and service questions, contact emcacustomerservice@leviton.com

Visit our website at: www.leviton.com/sensors

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