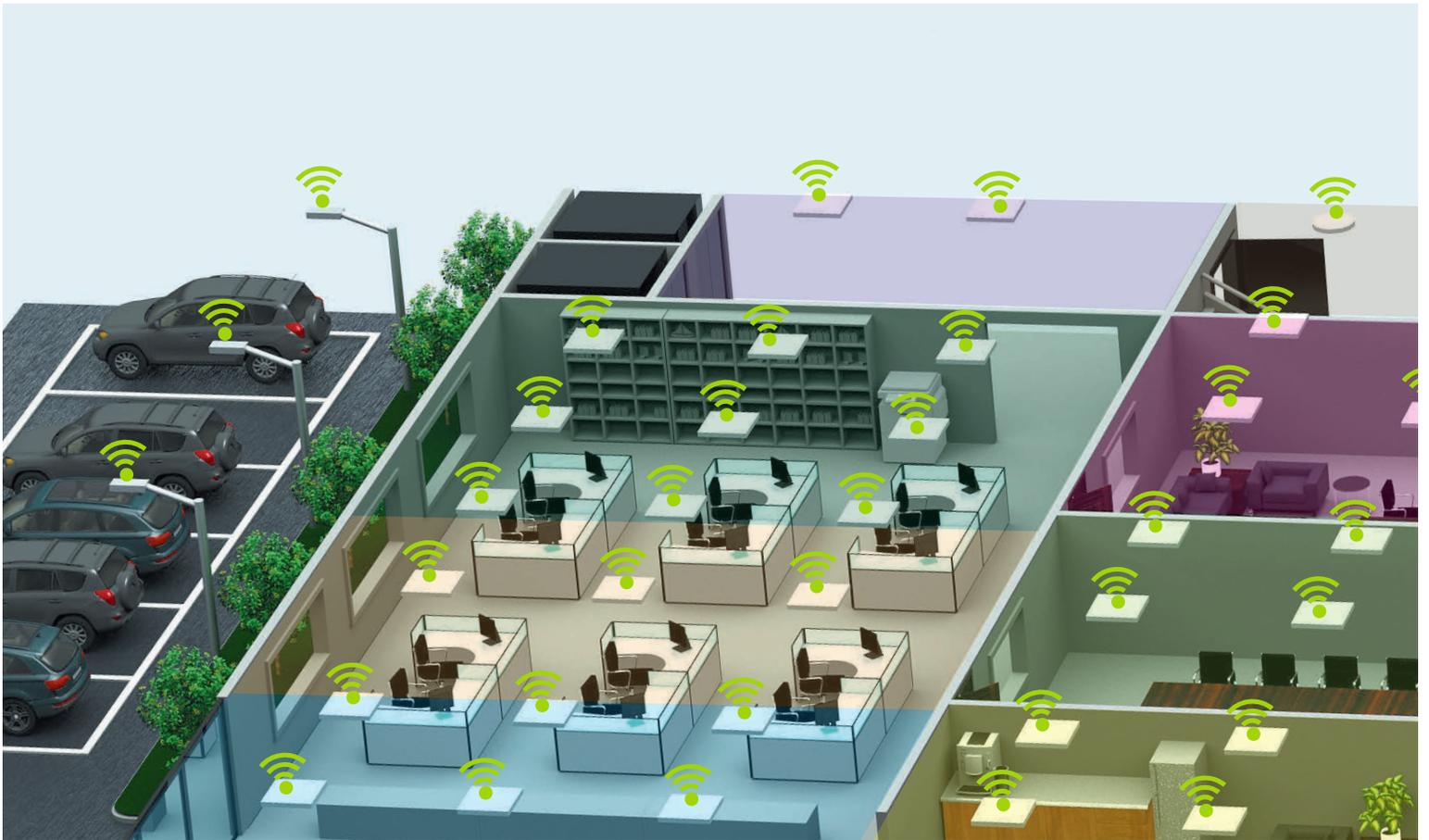




A Simpler and Smarter Wireless Lighting Control Solution

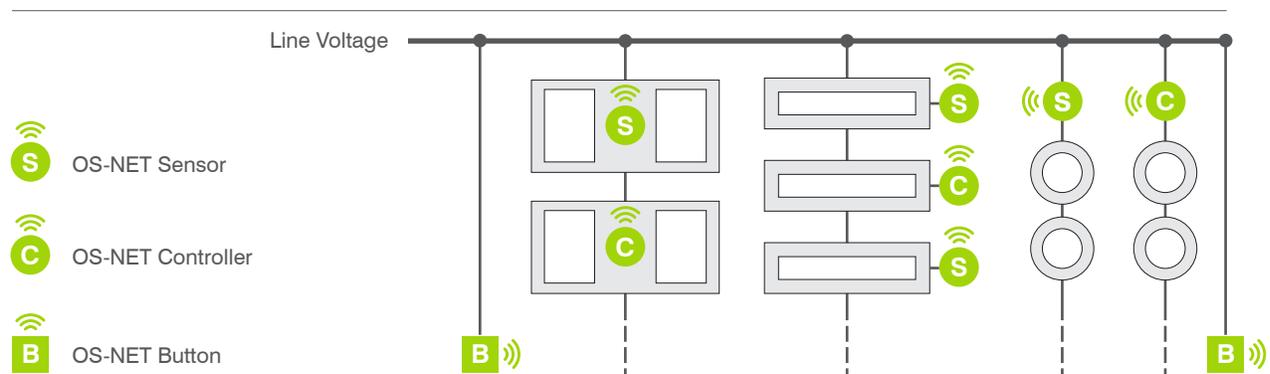


Flexibility • Functionality • Simplicity

Sophisticated Control with Unparalleled Simplicity



Wireless Lighting Control Concept



The OS-NET, abbreviated from OccuSens™ Network, is a smart sensor network solution developed by IR-TEC to deliver wireless connectivity to every luminaire and lighting circuit.

Thanks to simple concepts combined with IR-TEC's technical innovations, a wireless mesh network can be effortlessly established by installing OS-NET enabled luminaires and circuits. OS-NET delivers straight forward intelligent lighting controls, including occupancy/vacancy sensing, daylight harvesting, bi-level dimming and continuous dimming all with wireless communication.

With some easy and intuitive settings, all OS-NET enabled lights can be controlled individually or as groups. If necessary, the installed lighting can be easily re-configured to provide different control schemes or reassigned to a new group.

IR-TEC's OS-NET is an easy solution for OEM manufacturers to enable their luminaires with state-of-the-art wireless sensor mesh network connectivity, and also an unsurpassed solution for retrofitting legacy lighting. The core of OS-NET is that it offers the greatest Flexibility, with the most Functionality, in the Simplest manner.

Simply Deliver Wireless Connectivity to Every Light

Traditionally, bringing controls to the lighting environment means extra sets of control wire networking, time-consuming wiring connections between devices and central controls, complicated system commissioning and configuration through proprietary management software. These works result in more time up the ladder, separate wiring diagrams, high levels of complexity, higher project cost, and professional maintenance in the future. With OS-NET, you can have an easy solution to deliver sophisticated controls to every light without extra wiring between luminaires or to the exclusive dimmers/switches.

OEM Lighting Manufacturer

With the OS-NET solution, any OEM lighting manufacturer can easily deliver luminaires with unsurpassed wireless network control capability in numerous options. All OS-NET enabled luminaires can be intuitively connected and grouped together via a handheld remote.



Lighting Designer/Specifier

With the OS-NET solution, lighting control will become as easy as selecting luminaires and switches. No extra devices and control wires are needed. Just specify OS-NET enabled luminaires and/or lighting circuits, and the design of a code-compliant lighting system is done.



Electrical Contractor/Installer

With the OS-NET solution, installing a state-of-the-art lighting system featuring code-compliant controls is as easy as installing conventional lighting. The intelligence is available in each OS-NET enabled lighting. All you need to do is, grouping and setting the devices via a handheld remote.





Unsurpassed Flexibility, Functionality, and Simplicity

- **One Sensor/Controller per luminaire or circuit**

OS-NET devices can be flexibly integrated with OEM luminaires from the factory or in the field at installation. This approach enables the installation of OS-NET enabled luminaires just like conventional lighting, while also establishing a wireless control mesh network.

- **Every sensor features total interchangeability**

Every OS-NET sensor features total interchangeability with a variety of mounting and lens options for selection. IR-TEC's second-to-none design innovations provide unsurpassed flexibility to OEM's, lighting designers, system integrators and electrical contractors.

- **Achieve sophisticated control without complexity**

Any OS-NET device can be easily assigned to be members of multiple lighting groups via EZ-GROUP setting. OS-NET makes sophisticated multi-group, multi-task lighting control available without labor intensive network wiring, fault-finding, and commissioning.

- **Command broadcast makes group control easy**

When any OS-NET sensor detects the presence of an occupant, the sensor not only controls the integrated lighting according to the local condition, but also broadcasts the occupancy command to other group devices to execute the controls as configured.

- **Network available wherever line voltage is available**

An advanced sensor mesh network is effortlessly deployed through installing a number of OS-NET enabled luminaires and circuits. Wherever line voltage power is available, the OS-NET can be easily established via intuitive and simple remote settings.

- **Meet emerging building code with no extra effort**

Every OS-NET device can be programmed by a handheld remote to provide specific lighting control as per building codes required, including occupancy/vacancy sensing, daylight harvesting, bi-level and continuous dimming by IR-TEC's exclusive SmartDIM technology.

- **No more expensive computer software required**

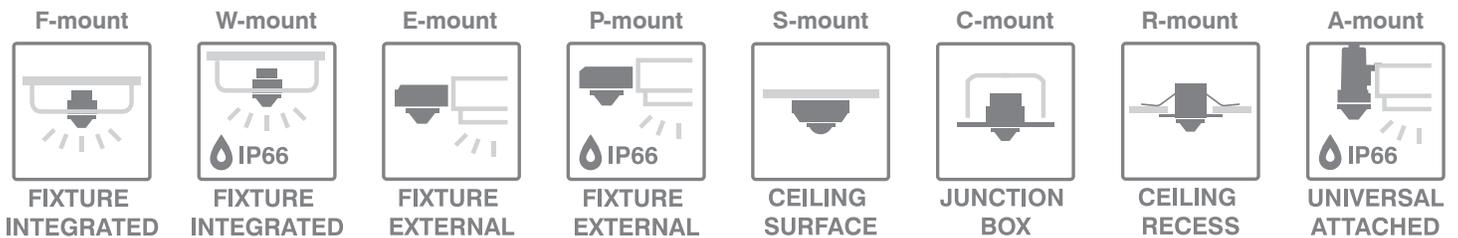
Unlike many other network solutions in the market, OS-NET does not require any proprietary computer software to execute system and devices setup, commissioning, and management. All you need is just an OS-NET Remote Programmer.

Functionality – OS-NET Devices

OS-NET	Functional Description
<p>Sensor (ONS)</p> 	<p>A standard OS-NET device combines wireless communication, occupancy sensor, daylight sensor, and control output in a compact unit to provide individual and network lighting control.</p> <p>The ONS is a fundamental network device of OS-NET which can be integrated with a luminaire or mounted on the ceiling in various options.</p>
<p>Controller (ONC)</p> 	<p>A supplementary OS-NET device contains all control functionalities of the ONS, but no occupancy sensing capability for coordinated control with the assigned groups.</p> <p>The ONC is an alternative network device of ONS, which can also be integrated with a luminaire or mounted on the ceiling in various options.</p>
<p>Button (ONB)</p> 	<p>An optional OS-NET device designed to replace existing wall switch and broadcast manual control commands (on/off/dim) to the lighting group assigned.</p> <p>The ONB can be mounted into a NEMA standard wall box, powered by line voltage power to provide manual control required by space users.</p>

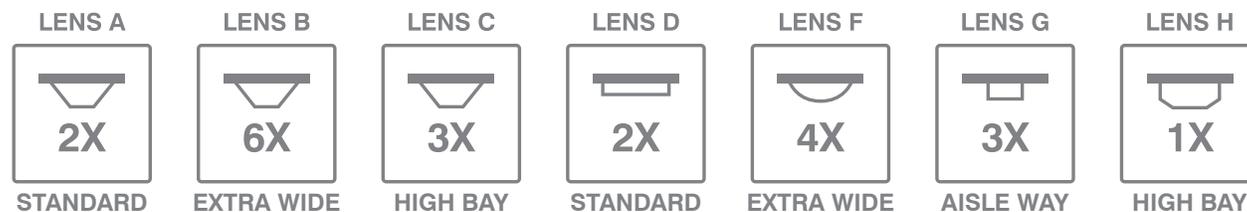
Flexibility - Mounting Options

The following mounting options are available for OS-NET sensors and controllers to integrate with luminaires or lighting circuits.



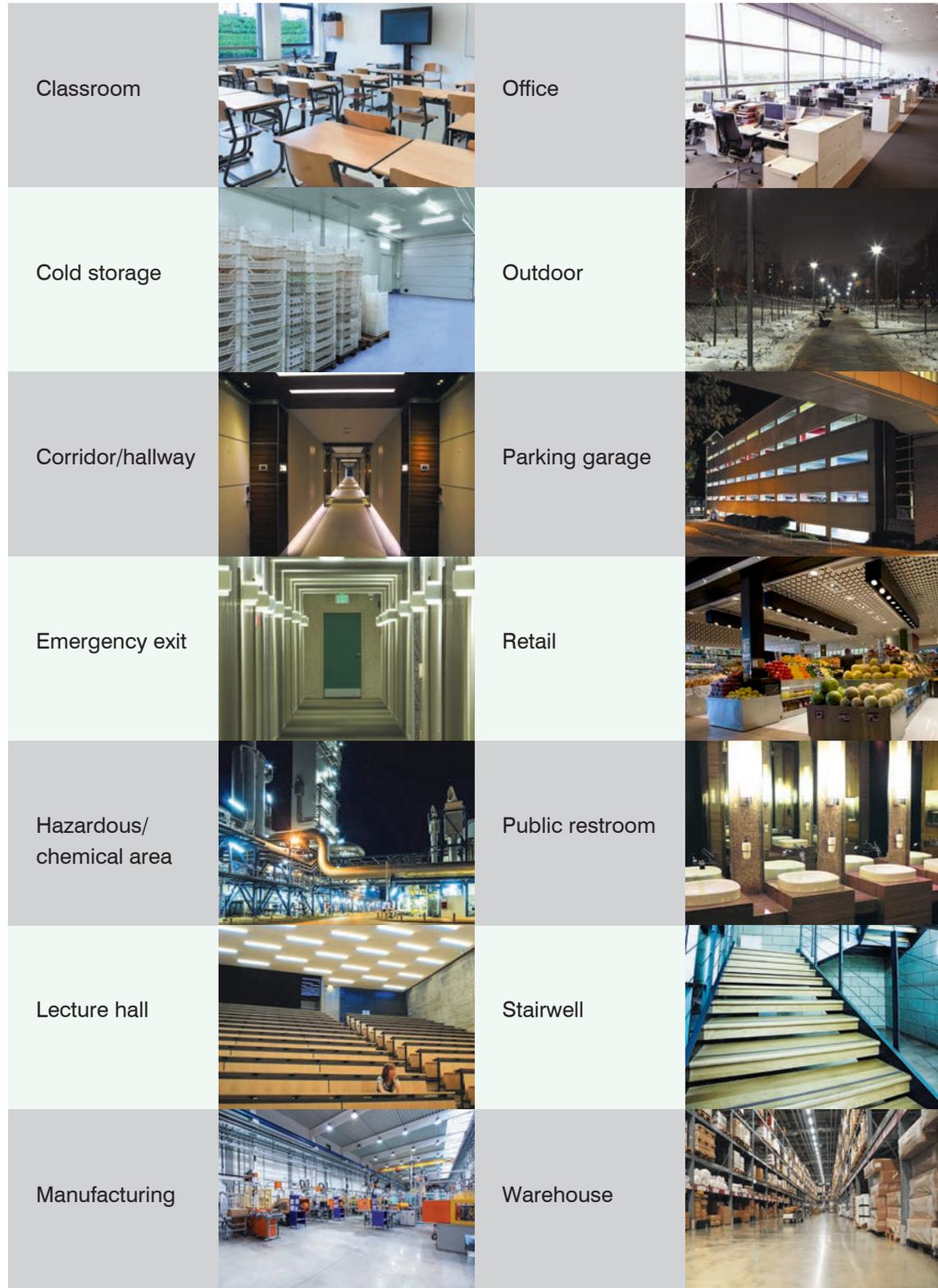
Flexibility - Lens Selections

The following lens options are available for OS-NET sensors to provide different coverage at various mounting heights.



Bring Intelligent Lighting Control to All Applications

IR-TEC's OS-NET can be easily deployed in all types of commercial, industrial, institutional, and outdoor environments to maximize energy efficiency through a wirelessly interconnected, versatile, simple to use, intelligent lighting control network.



A Simply Better Solution

OS-NET is a simply better lighting control solution with unsurpassed flexibility, functionality and simplicity that no other single solution in the market can match.

Solution	OS-NET	Others
Devices	Sensor, Controller, and Button (optional).	Sensor, Controller, Switch, Dimmer, Interface, Adapter...etc.
Integration	Sensors/controllers can be flexibly integrated with OEM luminaires or lighting circuits.	Most require connection with separate sensors and controllers.
Installation	Exactly same as conventional lighting and wall switch.	Separate device installation results in higher labor cost due to more works.
Software	No computer software required.	Most require proprietary computer software.
Security	All wireless communication commands are encrypted by AES-128.	PC-based system is more vulnerable to cyber attack.
Control	Each sensor/controller can be individually configured to provide specific sensing and control.	Sensor and control are normally built-in separate devices.
Commissioning	Use handheld remote to setup all control configurations for individual/group lighting.	Most require PC operation to search and link all devices to establish the network.
Maintenance	Same as conventional lighting.	Most require professional engineer for maintenance.
Application	Available for most indoor/outdoor applications of commercial/industrial lighting control.	Many are available for indoor application with limitations of ceiling height and spaces.
Freedom	No binding with specific lighting manufacturer.	Some may require exclusive luminaire from specific manufacturer.
Expansion	Just an easy remote operation to add new lighting into the network.	Many require professional engineer to add new lighting into the network.
Ownership	Lower cost, shorter ROI.	Higher cost, longer ROI.

Specifications

Device description	Series code	Mounting options	Lens options	Power voltage	Control output
Line Voltage OS-NET Sensor	ON-LRD-509S	F/W/E/P/A/S/C	A/B/C/D/F/G/H	120/277VAC	SLV, 0-10V
Low Voltage OS-NET Sensor	ON-BRD-500S	F/W/E/P/A/S/C/R	A/B/C/D/F/G/H	12-24VDC	IDC, 0-10V
Line Voltage OS-NET Controller	ON-LCD-509N	F/W/E/P/A/S/C	--	120/277VAC	SLV, 0-10V
Line Voltage OS-NET Button	ON-PBD-705	Wall box NEMA	--	120/277VAC	--



The premier sensor and controls solution provider since 1982

Founded in 1982, as a pioneer of motion sensing technology in Taiwan, IR-TEC has established a solid reputation as a trustworthy business identity by fulfilling its commitments to all stakeholders. Our production facility, and international headquarters, is in Taoyuan, Taiwan. Our United States headquarters is in Brea, Ca. With continuous research and development, IR-TEC has created a wide range of occupancy/vacancy sensors (presence/absence detectors), daylight sensors, and power packs for energy efficient lighting control, HVAC control and building energy management.

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