Controls Product Guide

interact

PHILIPS

dynalite

Signify offers controls solutions for any requirements and budget

Benefits of Signify lighting controls

Energy savings – By using intelligent lighting systems features such as Adaptive Dimming and Dwell Time (from Interact Pro), lighting is only used when needed and adapted to occupancy patterns. Natural light is harvested, and supplementary lighting adjusted accordingly, resulting in optimized environmental performance and minimized operating and maintenance costs.

Scalability – Signify control solutions adopt a flexible approach to accommodate building growth or churn – accommodating building journey to be smarter and connected and adapting to changing tenancies, fluctuating staff numbers, addition of new spaces etc. The same components can be used in a single-room application or in larger projects involving thousands of controlled units.

Ease of installation and configuration – Both Philips Dynalite and Interact Pro systems are easier to install and take less time to configure than conventional technologies, allowing customers to activate the project quickly and in a cost-effective manner.

Code compliance – Whether it is Title 24, IECC, ASHRAE or Well Building standard, Signify control solutions are up to date with the latest building code. See product specifications for compliance details.

Preset lighting control – This is more than just on/off lighting control. Signify control solutions allow you to create ambiance and recall different lighting scenes to suit your mood and the occasion.

Distributed control and monitoring – With logic being distributed between various devices in the network, there is not a single point of failure. Moreover, you can configure, control and monitor all the lights and system components by adding network gateways.

Flexibility in design – When layouts or control methods require modification, changes can be carried out via a simple configuration tool, allowing facilities to easily adapt and respond to changing times.

Advanced integration into other systems – Signify control solutions offer a range of integration devices, network gateways and APIs to integrated lighting and work in conjunction with other systems, such as building management systems, access control, fire and safety systems etc.

Human Centric Lighting – With the combination of tunable white technology and smart controls, get the freedom to create different ambiances in offices, schools, retail spaces, and healthcare environments and adapt the lighting to match the activity or enhance the atmosphere in the space. Moreover, automatically mimic daylight patterns by adjusting color temperature and brightness levels with respect to time of day for optimal visual comfort.

interact

Wireless

Interact Pro scalable system with integrated and connected sensor allows you to make the leap from smart lighting to super smart lighting. Its simple wireless offering makes your smart building journey easy and cost effective.

Why choose Interact Pro scalable system?

- A simple wireless system with a tiered approach between Foundation → Advanced → Enterprise, to suit your specific needs.
- Out of the box energy savings of up to 75%[2] and up to 85%[3] with gateways*
- No gateway, no IT support required
- No light point restrictions, no extra wiring
- Protect your day 1 investment and scale up to the next tier without replacing or retouching your day 1 lighting setup
- DLC and code compliant [ASHRAE 90.1 (2019), T24 (2019) and IECC (2018) building codes]
- Fast and easy commissioning and start up
- Adaptive dimming and dwell-time features enable the system to adapt to occupancy patterns in real time – delivering deep energy savings while maintaining occupancy comfort levels
- For more information go to: www.interact-lighting.com/interactproscalablesystem

PHILIPS
dynalite

Wired

When you choose Philips Dynalite, you are selecting the world's finest lighting control system. Tried and tested in more than 30,000 projects, Philips Dynalite has implemented some of the largest and most extensive control networks around the globe. The same robust technology can be used in any application, on any scale.

Why choose Philips Dynalite?

- Up to 85% energy savings with a distributed networked controls approach[2,3] *
- True hybrid system allowing for 0-10V, Phase cut, PWM, DALI, DMX, switching all dimming options from one system
- Highly configurable – achieve any combination of sophisticated outcomes customized to the exact needs of each living space
- Get pre-configured room automation features
- Many different user interfaces from which to choose, supporting custom engraving to match your needs
- Operate as standalone or network your entire building for central management
- DLC and code compliant [ASHRAE 90.1 (2019), T24 (2019) and IECC (2018) building codes]
- For more information go to: www.dynalite.org

Start simple and lay the foundation

- Smart lighting with luminaire integrated occupancy and daylight sensor
- Simply connect the Interact Ready luminaires, retrofit kits and lamps with the intuitive Interact Pro app through a Bluetooth connection.
- Add sensors, switches, 3rd party 0-10V or phase dimming luminaires.
- Set-up is simple and straightforward, just like SpaceWise: no need for additional wiring or access to the building's internet connection.
- Save up to 80 % on installation and material cost compared with more complex systems.[1]
- Boost energy savings up to 75 % with the unique adaptive dimming and dwell time features.[2]

Up to **80 %** savings in installation cost[1]
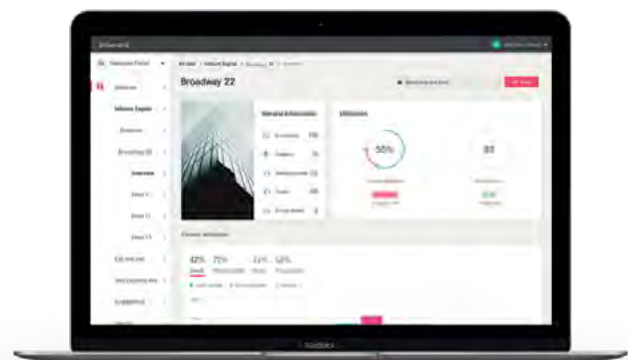
Up to **75 %** energy savings[2]
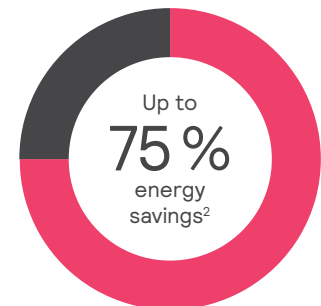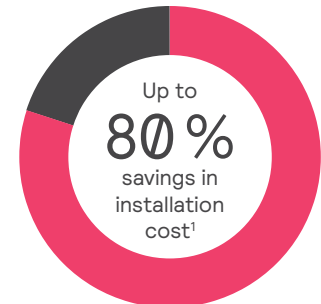
Scale up for more benefits by adding a gateway

- Instant access to cloud-based benefits and functionality such as scheduling, remote access, adaptation and energy monitoring, light point information regarding lifetime and health, as well as regular feature updates.
- Integrate with utilities for Open ADR based demand response strategy
- As your system grows, you can keep and build on all previously installed light points.

Tap the full potential of the IoT

- Access to occupancy, asset health and environmental sensing data
- Optimize workspace quality, improve safety and productivity and boost employee engagement – even across multi-sites.
- Unlock more savings with BMS integration
- Minimize waste with real time way-finding and desk/room booking tools

Functionalities overview

		Foundation	Advanced	Enterprise
Meet building codes	Integrated occupancy and daylight sensing	✓	✓	✓
	Manual ON	✓	✓	✓
	Partial automatic ON	✓	✓	✓
	Multi-level continuous dimming	✓	✓	✓
	Automatic shut-off control	✓	✓	✓
	Automatic daylight responsive control	✓	✓	✓
	Automatic receptacle control (Plug load control)	✓	✓	✓
	UL924 Emergency	✓	✓	✓
	Automatic Demand Responsive controls (Open ADR)		✓	✓
Comply with DLC	Networking of luminaires and devices	✓	✓	✓
	Luminaire Level Lighting Control (LLLC, integrated)	✓	✓	✓
	High-end trim	✓	✓	✓
	Zoning	✓	✓	✓
	Individual addressability	✓	✓	✓
	Cybersecurity	✓	✓	✓
Maximize energy savings, rebates & comfort	Adaptive dimming (light when you need it, where you need it)	✓	✓	✓
	Dwell time	✓	✓	✓
	BlueTooth (BLE) connectivity (for commissioning only)	✓	✓	✓
	Scene control	✓	✓	✓
	Personal control for a single user	✓	✓	✓
	Energy reporting and export		✓	✓
	Scheduling		✓	✓
	Device monitoring/remote diagnostics		✓	✓
Beyond code	Multi-site management		✓	✓
	Floor plan visualization			✓
	Occupancy analytics (heatmaps)			✓
	BACnet integration			✓
	APIs (light control, occupancy, people count)			✓
	Physically swap/upgrade sensors			✓
IoT features	Room booking via App (e.g. meeting room reservation)			✓
	Interface for Outlook and Google calendar integration			✓
	Desk booking via App			✓
	People estimation (via SC1500 sensor, and people counting supported via external PointGrab sensor)			✓
	Temperature & humidity sensing (via SC1500 sensor)			✓
	Noise classification sensing (via SC1500 sensor)			✓
	Wayfinding via App			✓
	Indoor positioning SDK			✓
	IoT Apps: Kiosk App, Space Management App, Workspace App			✓

Interact Pro
scalable system devices

Foundation devices				
Interact-ready wireless luminaires	Interact Pro scalable sensor SNS210IA (SWZCS)	Commissioning device (IRT9015)	Wireless scene switches (SWS200)	Wireless dimmer switch 2B (UID8451/10)
Interact Pro app for Android and iOS	0-10V or Phase control modules (SBAZ10-CS or SBAELS-CS)	Wireless switch relay controller (RFSR10)	UL924 shunt module (ER100/00)	

Optional devices for Advanced				
Wireless gateway (LCN1840/05)	Wireless gateway for demand response (LCN1870/05)	Battery powered wireless IP42 sensor*	Interact Pro portal	Wireless occupancy and daylight sensor (LCN3120/05)*

* Can be deployed with smart lamps in Foundation and Enterprise setups

Optional devices for Enterprise				
Wireless gateway (LCN1850/05)	BCB (LCN1860/05)	Multi sensor bundle (SC1500)	Interact web software application	Space management and Workspace mobile apps

Interact Pro
scalable system architecture

Interact
IOT platform

Building
connectivity bridge
(BCB)

BACNet

BMS
system

IT
infrastructure

Interact Pro Enterprise

Wireless
gateway

Interact Pro Advanced

Wireless
gateway

Interact
Pro App

Smart
LED
lamp

External
battery
powered
sensor

Wireless luminaires
with integrated sensor

0-10V control
module

Phase dimming
module

Commissioning
remote

Wireless
wall
switch

Plug load
control module

Interact Pro Foundation

A one-stop solution with stand-alone or multi-system capabilities, featuring a strong hardware portfolio with maximum software and system integration flexibility.

Choose your desired level of control

- Save up to 75%[2] energy with occupancy and daylight sensor based controls. Up to 85%[3] savings with integration to HVAC, plug load and other sub-systems.
- Independent functionality with distributed intelligence and no single point of failure.
- Integrate your lighting controls with HVAC, blinds and AV systems with a comprehensive range of integration devices.
- Be it DALI, 0-10V, DMX, relay or phase dimming, the system offers flexibility around multiple dimming protocols.
- Deploy as standalone controls or network multiple spaces together for central monitoring and management.
- Choose design options from the award winning Antumbra user interfaces for chic look and feel.

See how the hardware, protocols, and software work together with ease

- All Dynalite system components (hardware, protocols and software) directly complement each other, granting every device on the network access to all the system features and functions as needed.

Get the ultimate end-user experience with System Manager

- System Manager is the dedicated head-end software for Dynalite systems. With direct access and oversight across the entire system, this application presents the most advanced and powerful features in an intuitive and representative format, enabling true end-user ownership of system operations.
- It includes maintenance tools, detailed reports of energy usage, lighting status, and system performance, paired with an easy-to-use console and clear and concise floor plans.
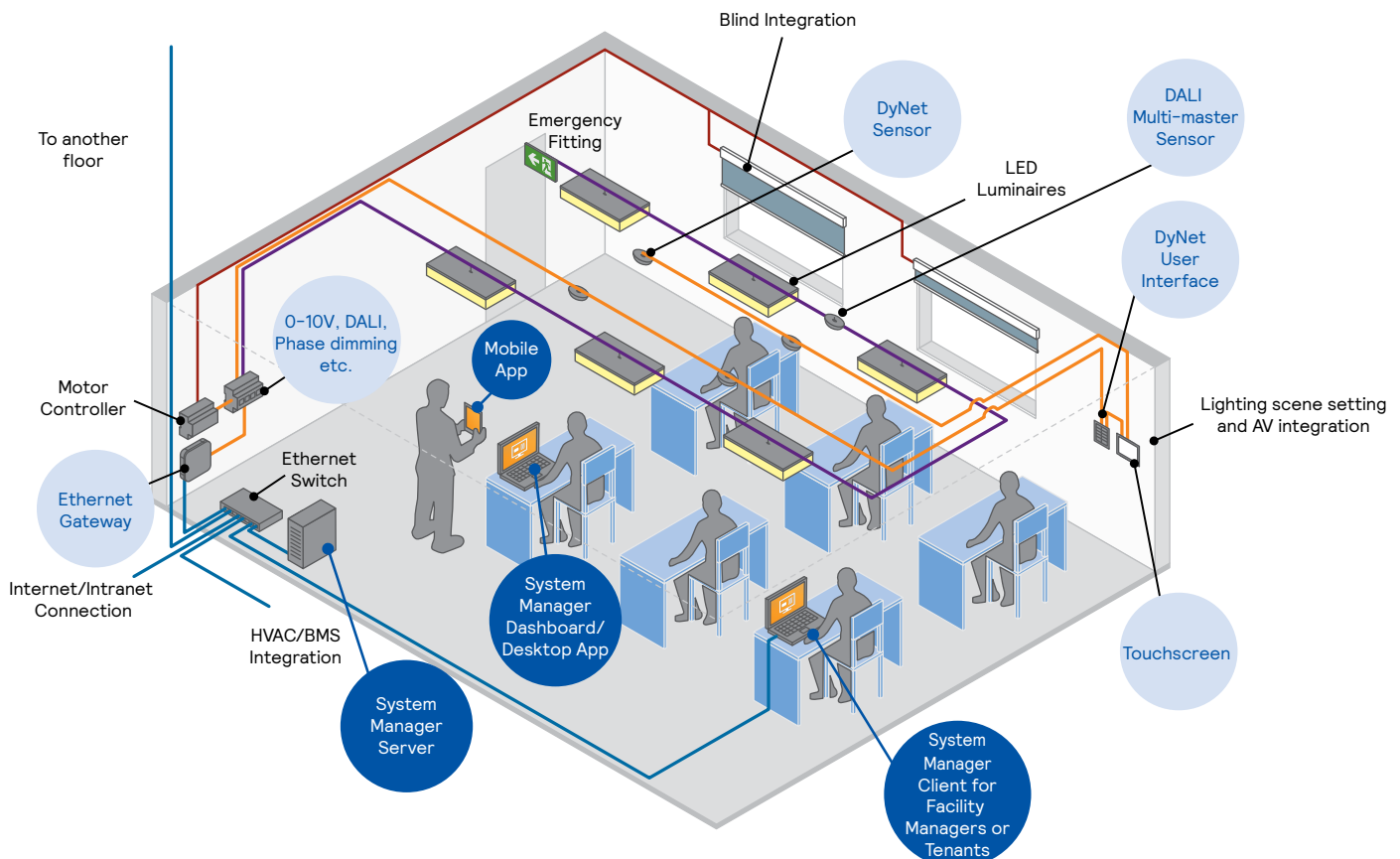
[2] Based on installation in the GSA-operated Metcalfe Federal Building located in Chicago, Illinois. This project was installed under the GSA Green Proving Ground Program.
https://www.assets.signify.com/is/content/Signify/Assets/philips-lighting/united-states/20201013-gpg-findings-integrated-with-alc.pdf
[3] Additional savings derived from HVAC, plug load control integrations and optimizing performance based on usage trends.

Functionalities overview

	Controls	System Manager
Meet building codes		
Ceiling and wall mounted occupancy and daylight sensing	✓	✓
Manual ON	✓	✓
Partial automatic ON	✓	✓
Multi-level continuous dimming	✓	✓
Automatic shut-off control	✓	✓
Automatic daylight responsive control	✓	✓
Automatic receptacle control (Plug load control)	✓	✓
UL924 Emergency	✓	✓
Automatic Demand Responsive controls (Open ADR)		✓
Comply with DLC		
Networking of luminaires and devices	✓	✓
High-end trim	✓	✓
Zoning	✓	✓
Individual addressability	✓	✓
Cybersecurity		✓
Maximize energy savings, rebates & comfort		
Adaptive dimming (at an area level)	✓	✓
Tunable white and color control	✓	✓
Dwell time	✓	✓
Scene control	✓	✓
Scheduling	✓	✓
Personal control		✓
Energy reporting and export		✓
Device monitoring/remote diagnostics		✓
Beyond code		
BACnet integration	✓	✓
Advanced integration (A/V, blinds, motor etc)	✓	✓
Multi-protocol support (DALI, DMX, 0-10V, phase)	✓	✓
Pre-configured solutions (eg. Room automation system, UVC controls)	✓	✓
Multi-site management		✓
Floor plan visualization		✓
Occupancy analytics (heatmaps)		✓
User profiles and role based permissions		✓
IoT features		
Temperature & humidity sensing (via Antumbra & Revolution UIs)	✓	✓
IoT Apps: iOS and Android	✓	✓
Remote upgrades: Software and firmware upgrades over the network		✓
APIs (light control, curtain control)		✓

Dynalite
controls devices

User interfaces

AntumbraButtton (PAXBPA)	AntumbraDisplay (PADPA)	AntumbraTouch (PATPA)	Revolution Series (PDRxA)	DyNet Communication Module (DACM-DyNet)	Networked Touchscreen (PDTS)

Sensors

Multifunction Sensor (DUS360CR)	Multifunction Sensor (DUS360CS)	Multifunction Sensor DALI (DUS360CS-D)	Multifunction Sensor (DUS804CS-UP)	Multifunction Sensor 90° (DUS90CS)	Multifunction Sensor 30° (DUS30CS)

Relay controllers

Multi-Protocol Switching Room Controller (DDRC-GRMS-E)	4 Channel Relay Controller (DDRC420FR)	8 Channel Relay Controller (DDRC810DT-GL)	12 Channel Relay Controller (DDRC1220FR-GL)

Power dimmers | Signal dimmers

PWM Controller (DDLEDC605GL)	DALI-2 Driver Controller, 1 DALI universe (DDBC120-DALI)	DALI-2 Driver Controller, 3 DALI uiniverses (DDBC320-DALI)	Signal Dimmer Controller, 5 Channel (DDBC516FR)	Signal Dimmer Controller, 12 Channel (DDBC1200)

Multipurpose controllers

Multipurpose Modular Controller + Control Modules (DDMC802)	Multipurpose Modular Panel + Control Modules (DMC2)	Multipurpose Modular Panel + Control Modules (DMC4)

Integration devices				Electrical accessories	
RS-232 Network Gateway (DDNG232-NA)	BACnet Network Gateway (DDNG-BACnet)	Dry Contact Interface (DLLI8I80)	Low Level Input Integrator (DDMIDC8-NA)	Network Power Supply (DMNP24040-P-NA)	DIN Rail Enclosure (DH2X24)

Network devices					
Ethernet Gateway - Supervisor (PDDEG-S)	Ethernet Gateway (PDEG)	RS-485/DMX512 Gateway (DDNG485-NA)	PC Node (DTK622–USB-J-NA)	Serial Port Node (DMNG -232-NA)	Serial Port Node (DMNG –USB-NA)

Software and Apps					Wired System	
Philips Dynalite System Manager	Philips Dynalite System Builder	Philips Dynalite Control App	Philips Dynalite EnvisionTouch	Philips Dynalite DynamicTouch	UV-C Control System (PDUVCC-NA)	Room Automation System (PDRAS)

Dynalite
system architecture
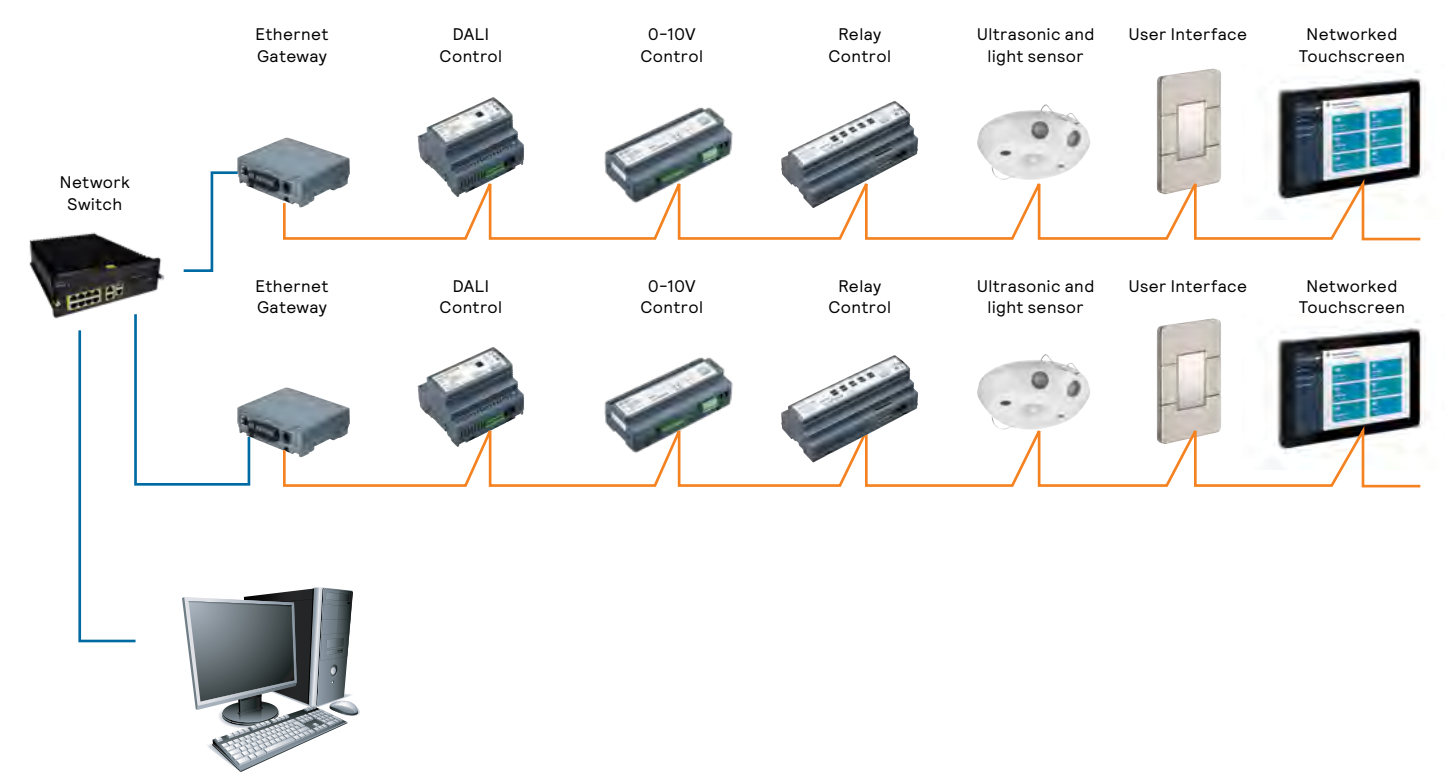
Room Automation System (PDRAS)

Single-box solution

- Assembled, programmed, and tested in the factory to provide complete out-of-the-box functionality.

Multi-zone support

- Each control system can manage up to five separate zones in single- or dual-room applications.

Networked Multifunction sensor

- Reduce installation complexity and ceiling/plenum clutter with combined occupancy and light level (lux) detection.

Optional networked PIR and ultrasonic sensors

- Expand your system's occupancy detection footprint with up to three extra PIR sensors and/or one long-range ultrasonic sensor per room. Sensors communicate with each other so that their combined occupancy status determines the system response.

Integrated daylight harvesting

- Multifunction sensors micro-adjust lighting levels to meet energy management regulations without disrupting occupant comfort.

Stations with large buttons and simple labelling

- Ensures straightforward operation for non-technical users.

UL924 input

- Integrates seamlessly with compatible emergency systems.

Direct-drive relays

- Isolate power to lighting groups and wall outlets to eliminate standby power consumption

Software-selectable 1-10V / DALI control

- Although factory-set for 1-10V, each control channel can be individually configured for DALI operation using Dynalite's System Builder commissioning software on a connected PC or laptop.

Ethernet connectivity*

- Enables network access to the school LAN for centralized monitoring and management.

* Future provision for -E variants only, not enabled at release.

Philips Dynalite Room Automation
System architecture

((•)) Sensor   ▢ Antumbra two-button   ▤ Antumbra six-button

Single room system

— 1-10 V control   — Switched power   — RS-485 DyNet   — UL924

CH4 Window lighting

120/277/347 V ∼
Supply

PDRAS

CH5 Plug load

CH1 Presentation lighting

CH2 Main A lighting

CH3 Main B lighting

Dual room system

— 1-10 V control   — Switched power   — RS-485 DyNet   — UL924

CH2 Room 1 Main lighting

CH1 Presentation lighting

120/277/347 V ∼
Supply

PD2DRAS

CH3 Prersentation lighting

CH4 Room 2 Main lighting
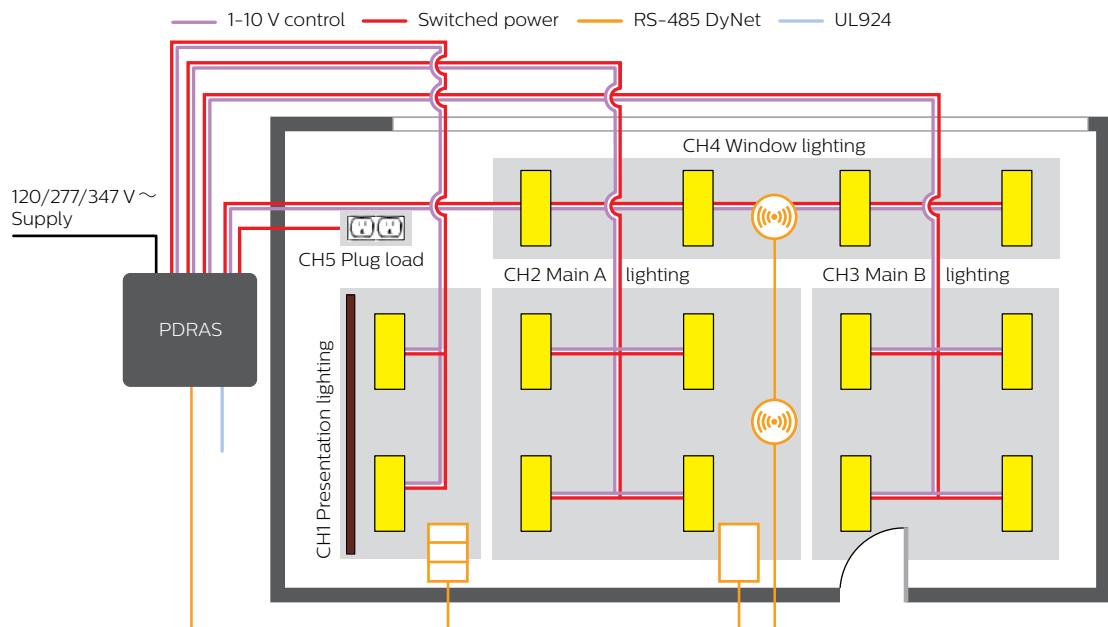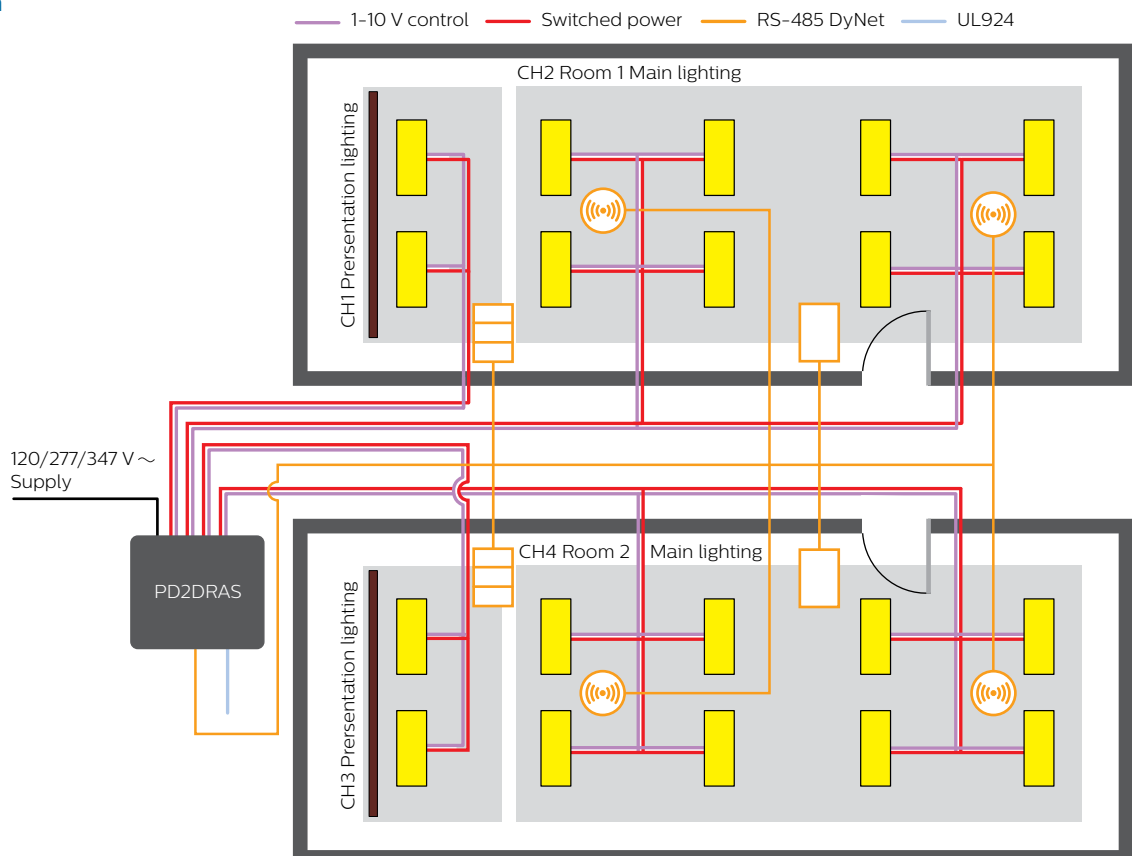
❗ Only one ultrasonic
sensor per room

❗ Sensor placement depends on
local architecture

UV-C control system relay controllers (PDUVCC-NA)

Single-box solution

- Assembled, programmed, and tested in the factory to provide complete out-of-the-box functionality.

Integrated Antumbra Display

- Allows authorized users to adjust UV-C disinfecting dosage and monitor lamp life management. Includes multi-language support.

Physical key switch protection

- Helps to ensure that only authorized users can modify settings or activate the system.

External control inputs

- Robust, reliable connection to door switches, emergency shutoff buttons, and vacancy confirmation checkpoints

Motion sensor integration*

- Designed to work with Dynalite's best-in-class network sensors to automatically shut down the UV lamps if motion is detected in the disinfection area.

System status indicators

- Eight clearly labelled LEDs on the front of the enclosure show the device's status at a glance.

Onboard event logging

- All system events are logged and timestamped for reporting.

Ethernet connectivity

- Enables secure network access to configuration and event logs via System Manager head-end software.

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* Sensors must not be relied on as a safety measure. The authorized user must always perform a visual check of the area before starting the cycle.

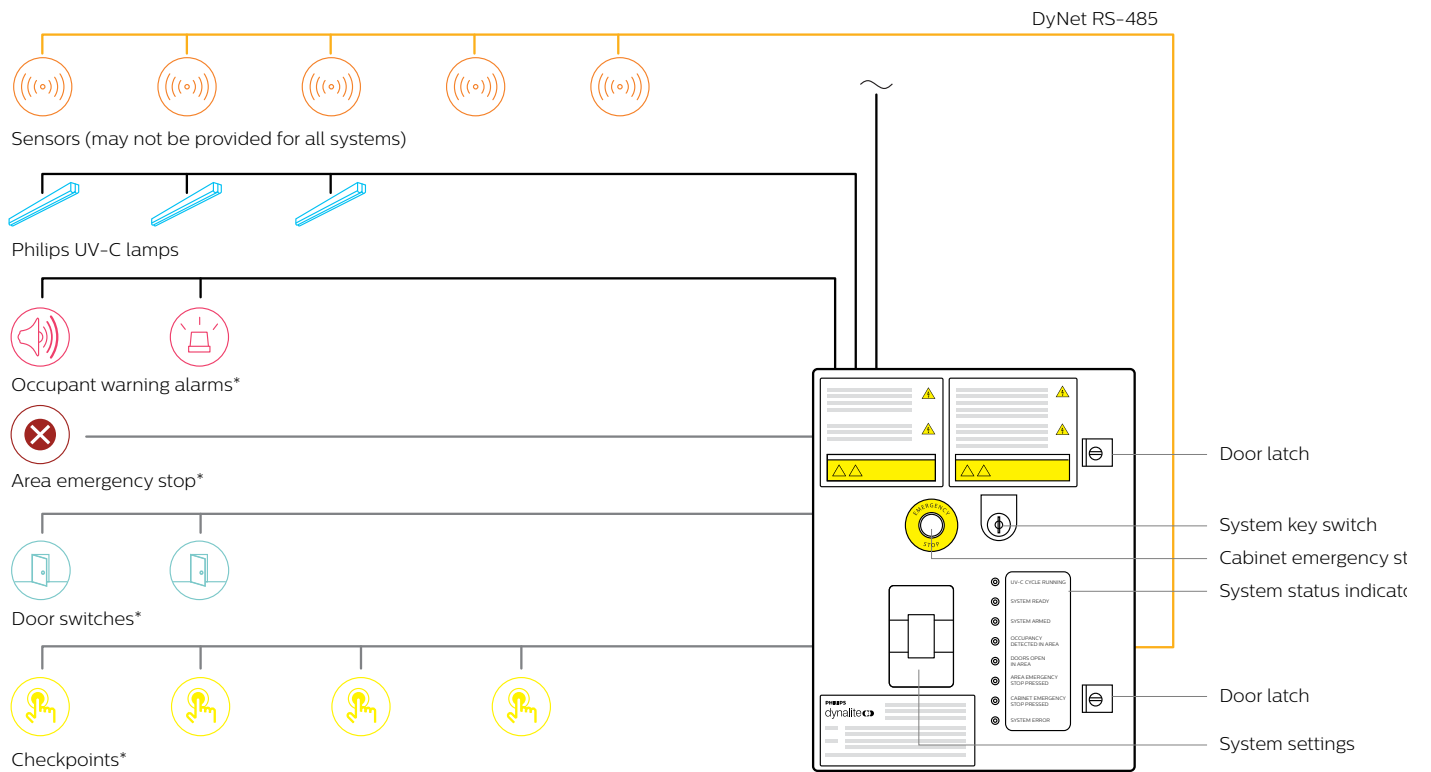**UV GERMICIDAL IRRADIATION SYSTEM**

Disclaimer

This product's effectiveness in the inactivation of certain viruses, bacteria, protozoa, fungi or other harmful micro-organisms is as described in the product documentation. Signify and its group of companies do not promise or warrant that the use of the products will protect or prevent any user from infection and/or contamination with any viruses, bacteria, protozoa, fungi, illness or disease. The products are not approved for, are not intended and must not be used as medical devices. In addition to and without limitation of any exclusions or limitations of liability of Signify and its group of companies as set forth in any agreement for the sale, distribution or otherwise making available of the products, Signify and its group of companies shall have no responsibility or liability whatsoever for any claim or damage that may arise from or relate to any use of the products outside of their intended use.

Warnings and Cautions

- This UV-C product is not approved and/or certified as a medical device.
- This UV-C product cannot be used to disinfect the surfaces of medical devices (such as medical devices in a room, surgical masks and/or surgical respirators). The device cannot be used in medical settings. The device cannot be used for disinfection of human skin.
- UV-C radiation can damage the human eye and can cause severe sunburn-like reaction to the human skin.
- UV-C can have adverse affects on organics such as plants and animals.
- UV-C radiation may damage or discolor materials such as plastics and rubber, among others.
- UV-C products should be installed and maintained by a trained technician following installation instructions and user manual.

PDUVCC-NA
system architecture

DyNet RS-485

Sensors (may not be provided for all systems)

Philips UV-C lamps

Occupant warning alarms*

Area emergency stop*

Door switches*

Checkpoints*

Door latch

System key switch

Cabinet emergency st

System status indicato

Door latch

System settings

UV-C CYCLE RUNNING
SYSTEM READY
SYSTEM ARMED
OCCUPANCY DETECTED IN AREA
DOORS OPEN IN AREA
AREA EMERGENCY STOP PRESSED
CABINET EMERGENCY STOP PRESSED
SYSTEM ERROR

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* Peripheral devices and Philips UV-C luminaires & lamps supplied separately

PDUVCC-NA
peripheral devices

Devices peripheral to the PDUVCC-NA cabinet and Philips UV-C luminaires and lamps supplied separately.

	Device	Function	Action	Electrical Requirements
	Occupant warning alarm	Warns occupants that the UV-C lamp cycle is about to begin	Flashing lights, audio alarm, or any other warning devices as per local regulations	max 12 A, 120 VAC
	Emergency stop button (red)	Immediately stops the UV-C lamp cycle	Normally closed momentary push-button switch	Rated switching voltage: ≥ 24 VAC/DC Rated switching current: ≥ 0.5 A Minimum switching capacity: ≤ 10 mA @ ≤ 5 VAC/DC
	Door switch	Ensures that all doors to the UV-C area are closed before UV-C cycle can begin	Closed contact when door is closed.	
	Checkpoint button (yellow)	Confirms that the authorised user has physically inspected the area for occupants before UV-C cycle can begin	Normally open momentary push-button switch	

* Sensors must not be relied on as a safety measure.
  The authorized user must always perform a visual check of the area before starting the cycle.

Signify

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