Controls Product Guide

interact
by signify

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Genlyte Solutions 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, lighting is only used when needed and adapted to occupancy patterns. Natural light is harvested, and supplementary lighting is 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 a building journey to be smarter, connected and adaptive to changing tenancies, staff numbers and space reformation. 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 adjust 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. Create personalized 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.

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Interact is a wireless, smart lighting system with luminaire-integrated, connected sensing technology. Interact can help make workplaces comfortable, secure and productive, while boosting energy savings to meet sustainability targets. Available in three tiers, Interact can help with every step of your smart lighting journey.

Why choose Interact?

- A simple wireless system with a tiered approach 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 one 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: https://www.interact-lighting.com/en-us/what-is-possible/about-interact

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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 that can be used in any application, on any scale.

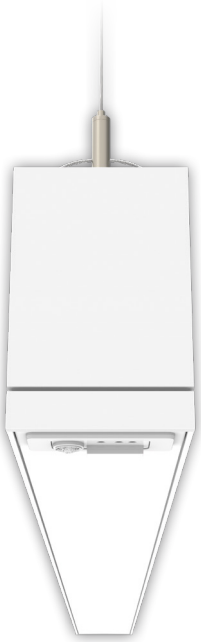
Why choose Philips Dynalite?

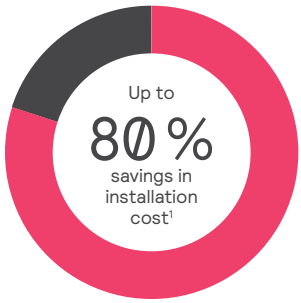
- Up to 85% energy savings with a distributed networked controls approach[2,3] *
- True hybrid system allowing for 0-10V, Phase cut, PWM, DALI, DMX, switching all dimming options from one system
- Highly configurable – achieve any combination of sophisticated outcomes customized to the exact needs of 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

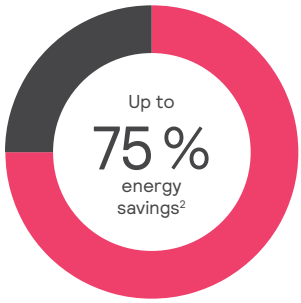
* See footnotes on page 2 for Interact Pro and page 6 for Philips Dynalite

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]





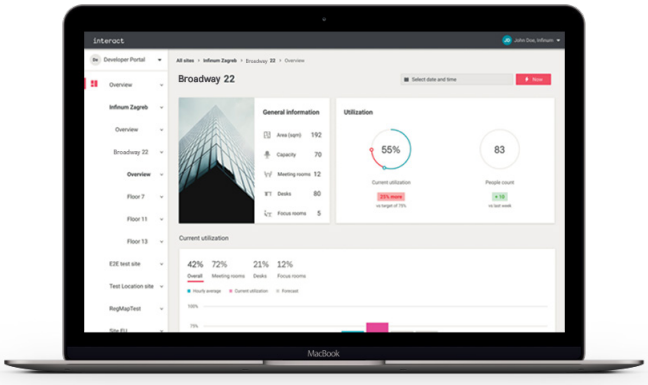


Add a gateway for more benefits

- 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 into 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



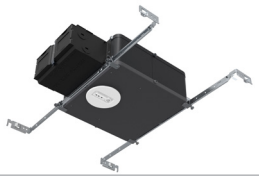
1. Compared to installation of wired networked lighting control systems.
2. Based on installation in the GSA-operated Metcalfe Federal Building located in Chicago, Illinois. This project was installed under the GSA Green Proving Ground Program. https://www.assets.signify.com/is/content/Signify/Assets/philips-lighting/united-states/20201013-gpg-findings-integrated-with-alc.pdf
3. Additional savings derived from HVAC, plug load control integrations and optimizing performance based on usage trends.

Functionalities overview

		Standalone	Gateway	Gateway + IoT
Meet building codes	Integrated occupancy and daylight sensing	✓	✓	✓
	Manual ON	✓	✓	✓
	Partial automatic ON	✓	✓	✓
	Multi-level continous dimming	✓	✓	✓
	Automatic shut-off control	✓	✓	✓
	Automatic daylight responsive control	✓	✓	✓
	Dimming, daylight harvesting & occupancy controls	✓	✓	✓
	Automatic receptacle control (Plug load control)	✓	✓	✓
	Outdoor Parking Sensor*	✓	✓	✓
	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	Circadian lighting support	✓	✓	✓
	Remote management		✓	✓
	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 supported devices

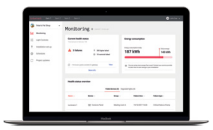
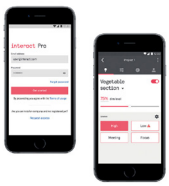
Sensing and control devices

				
Interact-ready wireless luminaires	Commissioning device (IRT9015)	**Zigbee** Green Power Switch and Scene Selector for Standalone and Gateway without engraving (UID8465/50)	Wireless scene switches (SWS200)	Wireless load controller with 0-10V (SWCS-RADIO / SWCS-SNSR-R-S)
				
Battery powered wireless IP42 sensor*	Lumininare integrated sensor SNS210IA, SC200, SNS441IA, SC100 (SWZCS & RADIO)	UL924 shunt module (ER100/00)	Wireless switch relay controller (RFSR20)	
				
Multi-sensor bundle for Gateway + IoT (SC1500)	0-10V or Phase control modules (SBAZ10-CS or SBAELS-CS)	Sensor SNH210IA (SWZCSH)	Outdoor parking sensor (LCN4120/05, LCN4120/15, LCN4150/05, LCN4150/15)	Outdoor repeater for parking applications

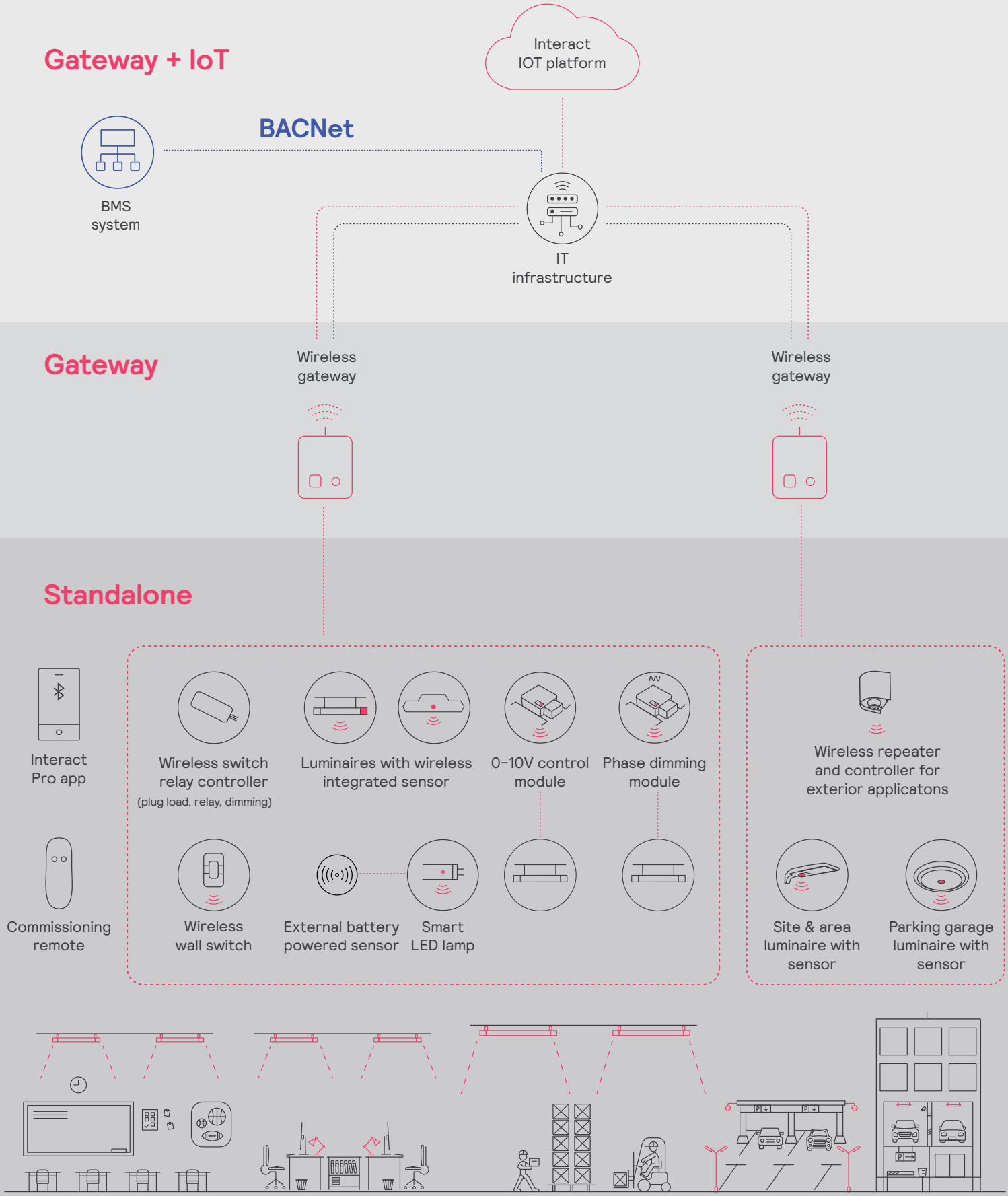
Add-on gateways for system monitoring

			
Wireless gateway (LCN1840/05)	Wireless Gateway for Gateway + IoT (LCN1850/05)	Wireless gateway for demand response (LCN1870/05)	Bidirectional OpenADR Gateway (LCN1880)

Software suite

			
Interact Pro portal	Interact Building Manager	Interact Space Manager and Interact Workspace app (Android and iOS)	Interact Pro app for Standalone and Gateway (Android and iOS)

Interact system architecture for office, education, healthcare, retail and industrial applications



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Controls

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

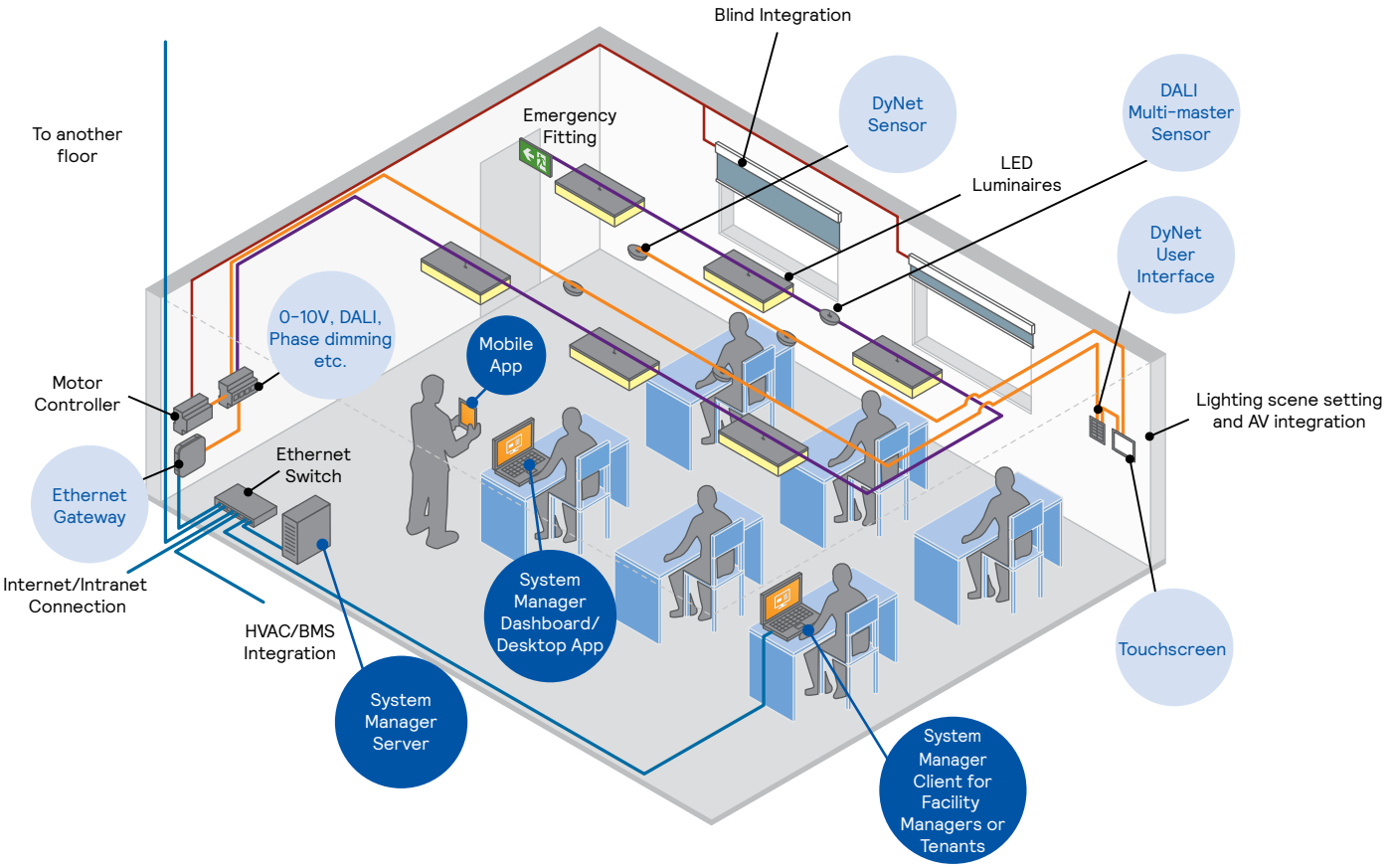
- Save up to 75%[2] energy with occupancy and daylight sensor based controls. Up to 85%[3] savings with integration to HVAC, plug load and other sub-systems.
- Independent functionality with distributed intelligence and no single point of failure.
- Integrate your lighting controls with HVAC, blinds 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)		✓

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Wired Controls

Dynalite controls devices

User interfaces

					
AntumbraButton (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

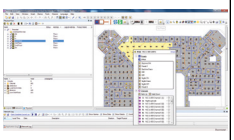

PWM Controller (DDLEDC605GL)

Signal dimmers

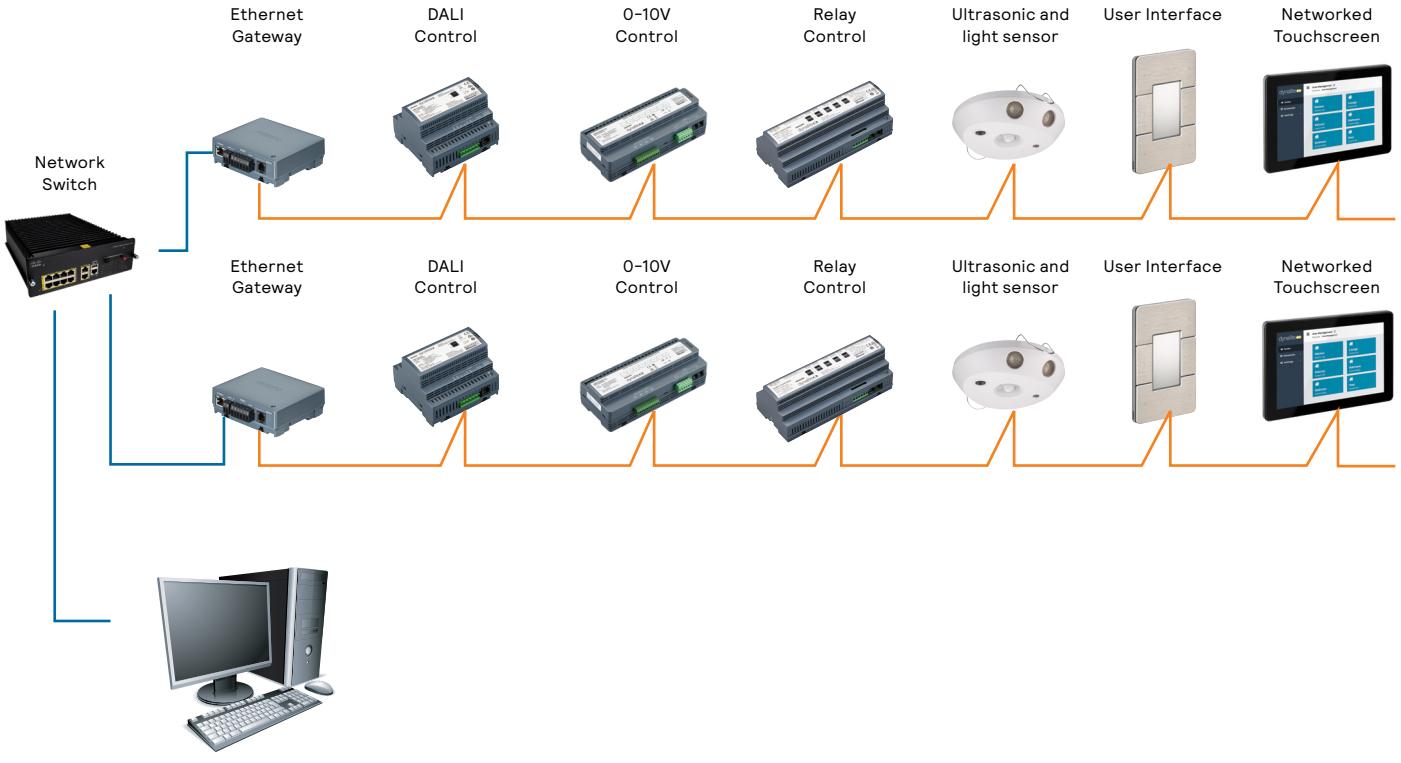
				
DALI-2 Driver Controller, 1 DALI universe (DDBC120-DALI)	DALI-2 Driver Controller, 3 DALI uiniverses (DDBC320-DALI)	Signal Dimmer Controller, 5 Channel (DDBC516FR)	Signal Dimmer Controller, 12 Channel (DDBC1200)	J-Box Mounted Controller (DDC116)

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 (DLLI8I8O)	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



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Wired Controls

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

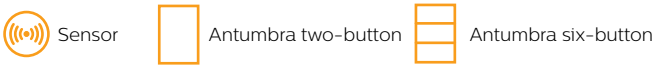
- Although factory-set for 1-10V, each control channel can be individually configured for DALI operation using Dynalite's System Builder commissioning software on a connected PC or laptop.

Ethernet connectivity*

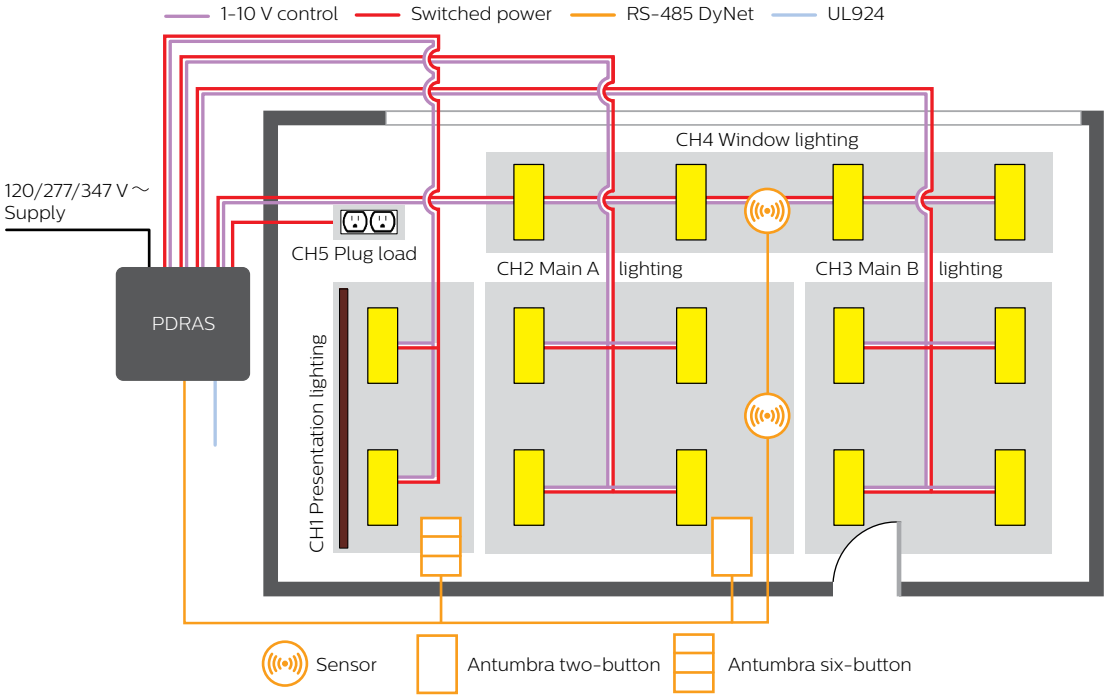
- Enables network access to the school LAN for centralized monitoring and management.

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

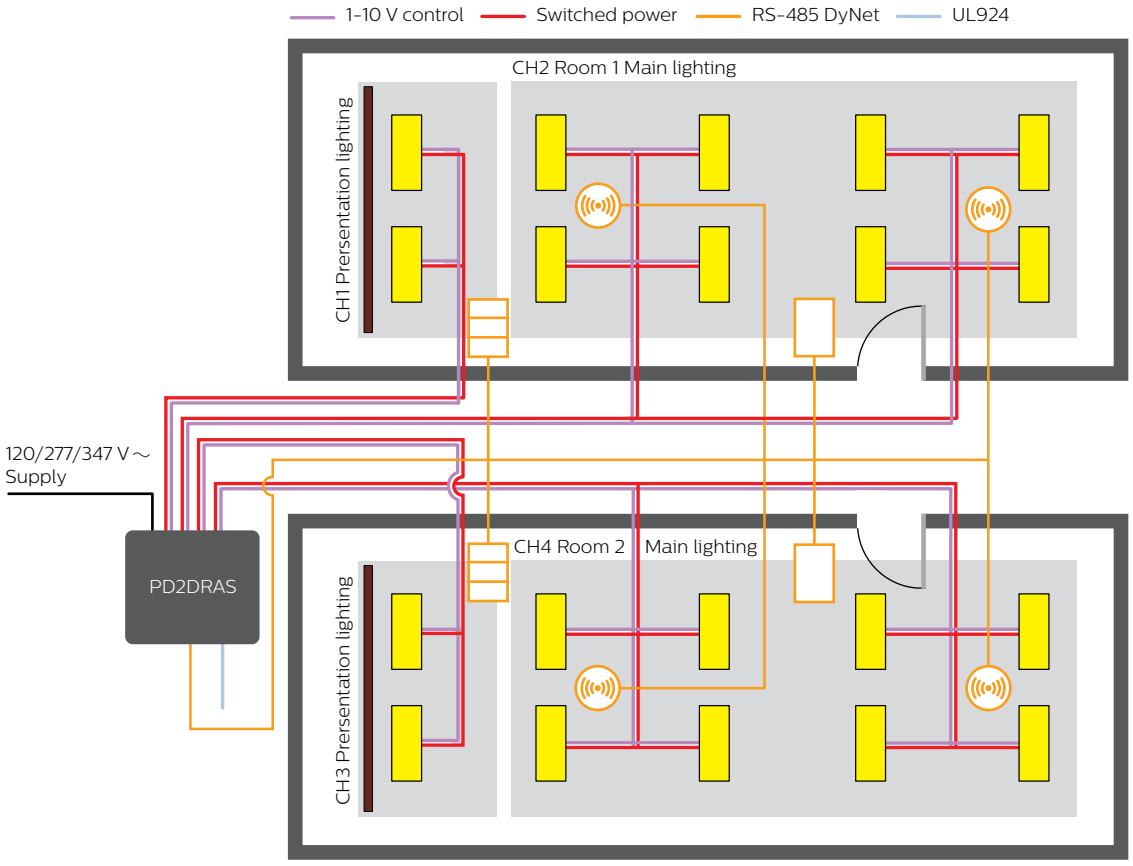
Philips Dynalite Room Automation
System architecture



Single room system



Dual room system



Only one ultrasonic sensor per room

Sensor placement depends on local architecture

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Wired Controls

Single Zone Controller

20 Amp relay and dimming control
of 0–10 V and DALI broadcast drivers

Suitable for plenum use
UL 2043 certified for installation in air-handling plenum spaces

Inbuilt diagnostic functionality
Features Device Online/Offline status indication

Universal voltage
100–277 VAC, 50 mA current sink

1x dry contact input for UL924

Standalone or networked
Suitable for room-based applications or integration across multiple spaces

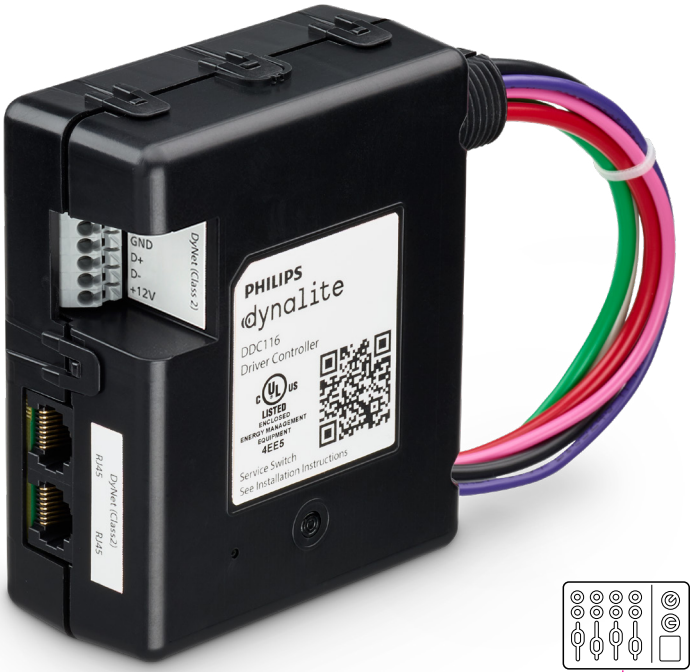
Accepts DMX 512 input

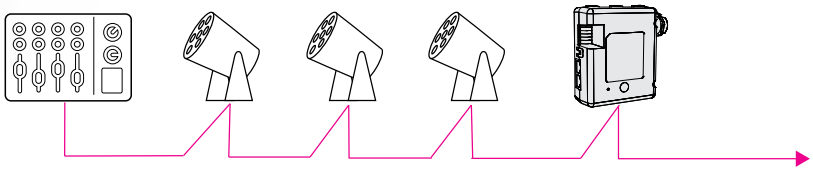
Easy to install
Snap on RJ45 ethernet connectors

Flexible
Control 0–10V, DALI broadcast

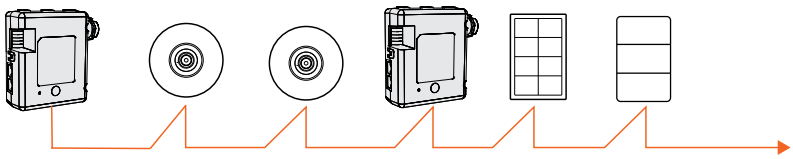
Daisy chain devices
Connect additional controllers or other devices

Compact design
Fits into standard junction box housings





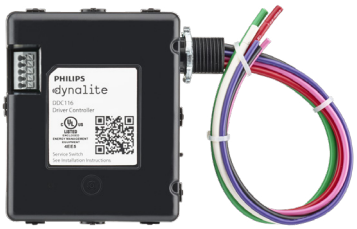
PDUVCC-NA system architecture



Dedicated Standalone Devices

DDC116 – Single zone 0-10v/Relay Controller
PABPA-SSA – 7 Different engravings with 15 configurations
DACM-SSA – Configurable Antumbra Comms Module
DUS804CS-UP-SSA-O or DUS804CS-UP-SSA-V – Preconfigured Ultrasonic Sensor
– and/or –
DUS360CS-DA-SSA – Configurable PIR/Daylight sensor

DDC116



System Behavior

All devices that are linked together though DyNet wiring will behave as a control area and deliver a unified system behavior.

PABPA-SSA

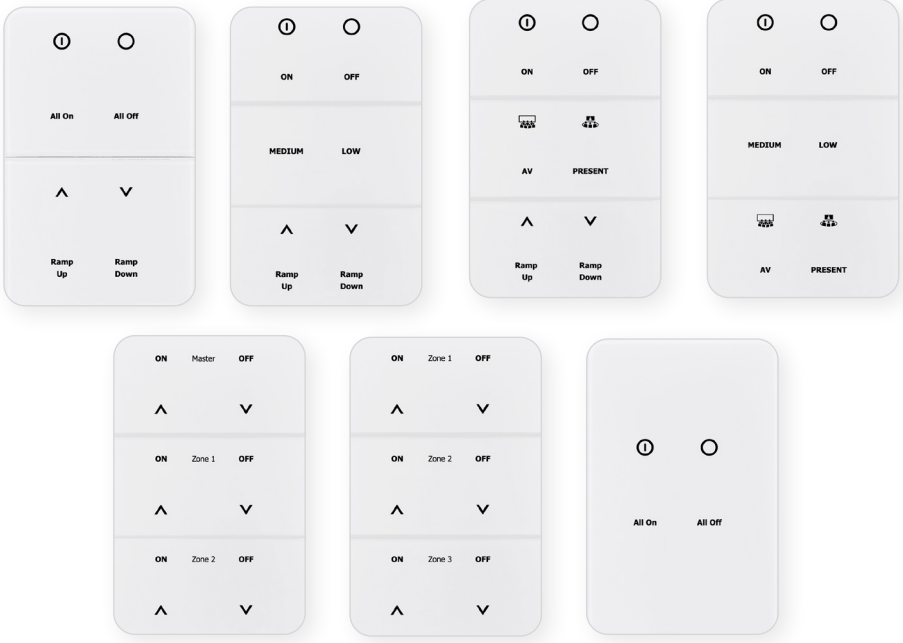
Sensor

- Sensor configurable between occupancy (default) or vacancy mode
- Configurable timeouts of 5, 10, 15, and 20min (default)
  - 1 min grace period on all timeouts
  - 20min witness mode to test functionality
- Built-in daylight sensing
  - Flexibility to activate primary and secondary daylight zones

DACM-SSA

Switches

- Recall preset lighting scenes
- Ramping disables daylight harvesting
- Ramping buttons only affect zones that are lit or “on”
- Fully customizable configuration via **System Builder** for more demanding projects



DUS804CS-UP-SSA-O or

and/or

DUS360CS-DA-SSA

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Wired Controls

Preassembled UL-rated multipurpose control cabinets

Ready for immediate installation
Eliminate the hassle of assembling cabinets in the field and save on installation and commissioning costs.

Made in the USA
Assembled, programmed, and tested in the factory to provide complete out-of-the-box functionality in a NEMA rated enclosure.

Fully scalable
Connect any combination of cabinets to meet the requirements of even the most demanding projects in a single networked control system.

0-10V/DALI Broadcast control
Up to 24 control outputs per per cabinet, individually configurable to 0-10V or DALI Broadcast.

DALI-2 control
Up to 3 DALI lines per cabinet with full support for addressing, tunable white, and RGBWAF*, as well as an inbuilt DALI power supply and driver power management.

Phase dimming control
Up to 16 forward or reverse-phase channels per cabinet.

Relay switching control
Up to 24 relay outputs per cabinet.

Modular multipurpose control
Populate up to 8 module bays per cabinet with any combination of forward/reverse-phase dimming, 1-10 V, DALI Broadcast, relay switching, and motorized curtain/blind control.

RS-485 network gateway
Connect optically isolated network spurs and enable a range of third-party integration options including AV systems, building automation, Modbus power meters, and DMX512 lighting.

Ethernet gateway
Enable LAN connectivity for commissioning and system management, an integrated web server for browser-based control and monitoring, and a huge range of enhanced functionality and integration options.

Variants Control Cabinets

Name	Cabinet Type	Description	Ordering Code
DBC120-DALI-ENC	ULC 1	1 x DALI addressing universe and input device support	12NC – 913703375709
DBC320-DALI-ENC	ULC 1	3 x DALI addressing universe and input device support	12NC – 913703375809
DBC516FR-ENC	ULC 1	5 x 16 Amp switching & 5 x 1-10V or DALI broadcast dimming or 1 x DALI addressing universe	12NC – 913703375909
DBC1220-GL-ENC	ULC 1	12 x 20 Amp switching & 12 x 1-10V or DALI broadcast dimming	12NC – 913703376009
DBC2420-GL-ENC	ULC 2	24 x 20 Amp switching & 24 x 1-10V or DALI broadcast dimming	12NC – 913703376109
DRC1220FR-GL-ENC	ULC 1	12 x 20 Amp switching	12NC – 913703376209
DRC2420FR-GL-ENC	ULC 1	24 x 20 Amp switching	12NC – 913703376309
DNG485-ENC	ULC 1	DMX512 gateway	12NC – 913703376409
PDEG-S-ENC	ULC 1	Remote access gateway	12NC – 913703376509
DRPC802-ENC	ULC 1	8 x 2 Amp Reverse phase dimmer	12NC – 913703378709
DFPC802-ENC	ULC 1	8 x 2 Amp Forward phase dimmer	12NC – 913703378809
DRPC1602-ENC	ULC 1	16 x 2 Amp Reverse phase dimmer	12NC – 913703378909
DFPC1602-ENC	ULC 1	16 x 2 Amp Forward phase dimmer	12NC – 913703379009
PDEG-ENC	ULC 1	Ethernet Gateway Trunk and spur	12NC – 913703379109
DMPC802-ENC	ULC 1	8 x modular controller	12NC – 913703375309
DMPC1602-ENC	ULC 1	16 x modular controller	12NC – 913703375409

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