

Dimming and controls



Philips Controls delivers energy savings with a focus on solutions for people.

As a world leader in lighting technology, Philips is well established in North America to provide solutions that transform ordinary buildings into high-performance, energy efficient facilities by offering a single source for lighting systems and controls.

Philips Controls offers a variety of options to meet today's demanding requirements that are scalable for any space regardless of size or application. Options range from practical occupancy and daylight sensors, user friendly architectural scene controls to a complete range of digital addressable systems providing intelligent building control.

As a complete solutions provider for the most challenging projects, the Philips Controls' product range is backed by full-scale service offerings from system design assistance, project management, commissioning through after-sales systems maintenance.

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Architectural controls

Lighting controls provide an opportunity to transform a space, manage moods, conserve energy, and improve the quality of life.

To make the building environment as responsive, productive and attractive as possible, Philips Controls solutions accommodate a wide range of architectural lighting needs and challenges. From convention centers to libraries or restaurants to ballrooms Philips Controls is capable of designing the most suitable lighting control solution that is tailored for the application.





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Netflix Corporate Headquarters, Los Gatos, CA
Photographer: John Sutton

Key benefits of an architectural lighting system

Key benefits of architectural lighting controls

Choose Philips Controls because we'll work with you to bring you better results. Whether it's providing comfort or promoting excitement, creating appeal or delivering efficiency, building image or promoting safety, Philips Controls can offer a full range of architectural control solutions to meet all your varying needs.

Enhance aesthetics

Preset Scenes allow light settings to be recalled at any time, providing a consistent look and feel to the space.

- Set the mood of the space with a simple change of the lighting scene. A subtle dimming of the light level can create just the right ambience for an unforgettable dining experience.
- For retail applications, automatic operation of lighting scenes by astronomical time-clock can signal employees it's time to open when showroom lights and displays turn on.
- Draw attention to areas and objects by increasing the light relative to the surrounding environment.

Create a positive image

Lighting that sets the right mood and creates a unique experience helps distinguish a facility apart from the rest.

- First impressions are lasting. Facilities can set themselves apart with architectural and accent lighting, presenting the corporate brand image of a true leader.
- Welcoming, inviting facilities can motivate occupants, engage visitors and impress clients or patrons. Effective, well-illuminated environments can positively impact employee morale and productivity.
- Too much light— or too little—can intensify worker fatigue. Flexible lighting, when applied correctly, can improve occupant comfort, boost energy and increase workflow efficiencies.

Enable system integration

Today's architectural systems often require integration of lighting controls with automated shades, building management systems, audio/visual systems, and custom touch-screen controls- providing simple "one button" control.

- Integrate lighting controls with architectural shade systems to reduce glare, minimize heating, and save energy. Program shades into lighting scenes to provide a consistent appearance of all exterior windows when viewed from the outside.
- Activate audio-visual equipment based on lighting scenes. Press the Video button and the screen drops as the lights fade and the projector powers on.
- Use touch-screens with custom graphics to facilitate simple user operation through graphical representations of the room.

Extended lamp life

Dimming systems increase the lifespan of incandescent and LED light sources, saving time and money.

- Reducing the need for frequent lamp changes in difficult to access light fixtures.

Provide safety and security

Well lit areas provide employees and customers a sense of security and comfort.

- Illuminate egress pathways during emergency conditions to safely assist occupants to exits.
- Turn on site lighting nightly to provide safe passage to parked vehicles and illuminate steps and obstructions.
- Integrate with security systems to coordinate facility lighting response during security events.



Strategies to save energy

Effective lighting controls

Philips Controls provides a variety of control methods to suit any setting, ensuring that energy is not consumed unnecessarily, while furnishing the user with flexibility and control over their environment.

Preset scene control	Users can select pre-set scenes at the touch of a button to recall suitable light levels by areas and individual zones.
Demand response	Allows facility managers to automatically reduce electrical demand in a building by shedding lighting loads dynamically (through dimming or switching) during peak demand.
Full status reporting	Building operators can configure, monitor, manage and pro-actively maintain the lighting and energy profile across the entire building or any part within.
Shade controls	Combine elements of daylight and electric lighting with window shade systems to diminish glare and provide maximum comfort with reduced solar heat gain.
Building management systems (BMS)	Integrate with Building Management Systems for centralized control and interaction of energy and comfort parameters for various sub-systems - Lighting, Security and HVAC.
Occupancy control	For spaces that are occasionally occupied, motion sensors can be used to automatically turn lights off when the space becomes vacant.
Daylight harvesting	Photo sensors automatically adjust light levels based on the amount of daylight in the space; appropriate light levels are maintained and electric lighting is dimmed when necessary.
Time scheduling	Automate general facility lighting by scheduling lighting to turn off or dim based on normal business hours, time of day events or calendar schedules.
Task level tuning	Set default (maximum) light levels to suit the particular task or use of a workspace in order to eliminate over lighting.
Lumen maintenance	Compensate for lighting system aging and degradation over time with tunable light levels to suit the task.
Personal control	Users can select the optimal light levels in their workspace to suit their personal preferences from a variety of user-friendly interfaces.



Dynalite – architectural controls

Distributed networked systems for total lighting control management

The Philips Dynalite range of lighting and energy management solutions provides a versatile lighting control system that can be tailored to address varying demands of today's commercial energy management and architectural lighting applications.

Expanding on a world-wide reputation with an extensive footprint of system installations, the introduction of the Dynalite range to North America represents a significant step for both the North American lighting industry and Philips, which is the only company that can offer a fully integrated end-to-end solution that spans lamps, fixtures, ballasts and control systems.

Product categories explained

Dynalite's range of control products can be broadly categorized as:

Load controllers: Dynalite offers an extensive range of controllers with a variety of output types, combinations and load ratings for switching and dimming applications. When the system is connected as a network, the user has total flexibility to control all loads connected to a load controller.

User interfaces: The user interface range includes prominent aesthetically pleasing and contemporary Control Wall Stations in a variety of styles for simple preset scene selection to advanced logic, LCD touch screens using vivid graphics and sophisticated on-screen controls, Time Clocks, and Multi-function Sensors offering more than simple on/off controls (for occupancy detection and daylight harvesting).

Network gateways: By using network gateways, the lighting system can be configured to work in conjunction with other systems such as Audio/ Visual and Building Management Systems. Security, air-conditioning, lights and other systems can be programmed to turn on/off or dim at particular times or with a particular signal or button press. Lighting and temperature can be controlled to vary with ambient conditions, or be based on occupancy.

Software: The control management software enables the facility manager to easily accommodate tenancy changes with 'drag-and drop' configuration and graphical programming. From straightforward commissioning focused on the building's design intent, to energy management, monitoring and maintenance of building performance parameters, the Philips Dynalite software suite offers the most advanced control settings with the simplest user experience.



Dynalite

Distributed networked systems for total lighting control management

Using modular building blocks, the system easily scales from a single room to an installation involving several thousand fixtures, allowing individual addressability to each light point for granular control and measurement using intuitive easy-to-use graphical software applications.

The Philips Dynalite system utilizes a true distributed processing architecture, where a range of devices is interconnected over a single platform to unify a variety of control technologies and systems to form a total solution.



Product features

1. Energy code compliant: Designed to fully comply with the energy efficiency provisions of ASHRAE/IES 90.1, CEC Title 24, IECC standards, local and state energy code mandates as well as enable eligibility for various utility rebate programs.

2. Total light management: Perfectly suited to flexibly overlay a wide range of lighting control strategies that can seamlessly deploy from small areas to multiple floors to the entire facility or campus thus enabling sustainability initiatives and Green Building LEED Certification. Essential facility management capabilities for energy monitoring, reporting and load shedding (based on peak demand) are inherently designed into the system.

3. Intelligent: With Dynalite's distributed architecture, each control device incorporates its own "built-in" intelligence to operate autonomously; this dramatically improves reliability over systems that incorporate centralized processors, wherein malfunction of one device could result in total system failure.

4. Future proof: Leveraging a common platform, the Dynalite network provides complete flexibility for future expansion and ensures that alterations or additions can be made after installation, without the need to re-configure the entire system.

5. Building integration: The system, while primarily designed for lighting control, offers a rich host of options to integrate extensively with systems including HVAC, Building Management Systems (BACnet), Security, Fire Detection, Emergency Lighting (UL 924), Access Control and other electrical loads to provide a comprehensive solution.

6. Keypads and touch screens: Enhance the environment with Preset controls for a user to recall custom lighting level combinations or scenes used for a typical room activity at the press of a button. Extend control of common Audio/Video components to touch screens with graphical floor plan representations and precise automated Shade controls. Blend simplicity with Dynamic Touch iPad/iPhone/iTouch applications as a single 'remote' point of control for lighting, climate controls, security and more!

Dynalite

Distributed networked systems for total lighting control management



Ordering information

Load controllers



Relay module	The DMRC820FR-NA Relay controller is designed to control a variety of switched loads for up to 8 circuits.
DALI module	The DMBC320-DALI-NA ballast controller is designed to provide individual fixture dimming controls for up to 3 DALI Loops and 192 devices.
0-10V module	The DMBC320-100ZT-NA ballast controller is designed to provide dimming controls with up to 3 0-10V Control channels Compatible with LyteSwitch relay panels and Optio dimming panel systems

User interfaces



Time clock The DTC602-NA is an astronomical time clock that can trigger events based on time of day, sunrise or sunset or preset times of days/weeks.

Touch screen The DTP100-NA and DTP170-NA offer rich color LCD touch screen options that use vivid graphics and sophisticated on screen controls to create visually stunning and easy-to-use pages.



Wall stations The DLP-NA user control stations provide aesthetically pleasing wall controls for most commercial applications, with available single and dual column designs for simple and advanced preset scene selection.

The contemporary DR2PN range of user control stations provides the ultimate in aesthetic design flexibility for scene selection. Now available in a variety of colors, architectural styles and custom engraving options.

Sensors



Multi-function motion detection and photo sensors Low profile 360° ceiling mount sensors (DUS804C-NA – flush mount and DUS804CS-UP-NA surface mount) combine motion detection (PIR and/or with Ultrasonic option), infrared remote control reception (IR) and ambient light level detection (Photo sensor) in the one device.

The DUS704W-NA wall mount sensor provides wide angle coverage combining motion detection (PIR) and infrared remote control reception (IR) in one device.

Network gateways



A wide range of network integration options are available to connect with Audio/Video, BMS, HVAC, Security, and Shade Control Systems –

- TCP/IP Ethernet interface for high-level integration: DNG100BT
- Network gateway for trunking and DMX interface: DDNG485-NA
- RS232 Serial Port interface: DNG232-NA
- USB Network interface: DMNG-USB-NA
- Dry Contact Input interface for low-level integration: DDMIDC8-NA

Software



The Commissioning and Site Management Software suite features icon-driven menus and commissioning templates to deliver unprecedented programming flexibility and fast-tracked lighting control system setup. Providing a simple and intuitive interface for access to even the most advanced functionality of the system, facility managers can accomplish lighting control and energy monitoring across all levels of a building.

Our expertise

The Dynalite product range has gained an international reputation for its quality, reliability and a rich feature set that is continually refreshed to the dynamic market trends. Backed by the highest level of engineering, sales and warranty support, Dynalite solutions offer a complete range of services from project system design and field commissioning to post-sales system maintenance.





Optio dimming panels

Scalable panel systems, Optio dimmer cabinet

IGBT dimming technology, commercial energy management /architectural

The Optio lighting control panel provides the outstanding digital control performance of IGBT dimming technology in a wall-mountable enclosure. Optio dimming panels are offered in scalable configurations – 3 module (up to 12 circuits), 6 module (up to 24 circuits) and 9 module (up to 36 circuits), tailored to address the varying needs of commercial and architectural lighting applications.

Silently performing for decades

Philips Controls IGBT dimming technology

IGBT (Insulated Gate Bipolar Transistor) state-of-the-art dimming technology from Philips Controls provides reliable, high-performance operation in the most demanding lighting applications. Tried and proven in the field across thousands of installations, IGBT dimmers are intelligent, energy-efficient, quiet, compact, and outperform traditional dimmers.

- **Smart:** IGBT dimmers use microprocessor "intelligence" and power devices to control various types of lighting loads – a single module is capable of supporting forward and reverse phase dimming controls. This is particularly useful in handling varying lighting schedules with last-minute fixture swap outs in the field without the need to replace the dimmer modules.
- **Silent:** IGBT dimmers are completely silicon-based and operate silently without the use of chokes. They do not produce any mechanical buzz, are smaller, lighter, and generate fewer neutral harmonics than conventional dimmers.
- **Reliable:** IGBT dimmers operate with an 800-microsecond rise time, realizing lamp performance, and extending lamp life. All IGBT dimmers incorporate a "focus" button feature which allows for manual operation of each dimmer, saving setup time and labor.
- **Efficient:** IGBT dimmers offer the most energy efficient dimming systems in the market today, requiring far less heat consumption to design the most compact footprint for installation.

Key features

- 1. Energy code compliant:** Optio panels are designed to fully comply with the energy efficiency provisions of ASHRAE/IES 90.1, CEC Title 24, IECC standards, local and state energy code mandates as well as enable LEED Green Building certification.
- 2. Occupancy sensing:** For enclosed spaces with intermittent occupancy, comply with automated shut-off requirements with seamless integration of Philips IntelliSight Occupancy sensors to maximize energy savings.
- 3. Daylight harvesting:** Create a sustainable environment by allowing facilities to take advantage of daylight to save energy. With Philips IntelliSight photo sensors, Optio dimming systems can easily deploy daylight harvesting controls providing compliance with light level reduction requirements.
- 4. Silent:** Optio distinguishes itself with its quiet IGBT operation (with convection cooling), allowing the cabinet to be located in acoustically sensitive spaces.
- 5. Flexible:** Optio also allows mixed combinations of IGBT and conventional SCR dimmer and relay modules to be incorporated within the same cabinet.
- 6. Extensive range:** Optio Dimmer Modules (Dual or Quad IGBT) and conventional SCR dimmer modules are available to support incandescent, tungsten, LED, low voltage, neon and cold cathode, electronic low-voltage, PowerSpec HDF, Mark 7 / EssentialLine 0-10V, Mark 10 / EssentialLine Powerline, three-wire dimming fluorescent and non-dim loads.



Complementary with Philips Controls Lyteswitch Relay Panels and the recently launched Philips Dynalite Lighting Control System, Optio dimming panels offer a broad range of lighting control options to suit a variety of building integration applications. Emergency Lighting Circuits (UL924), Building Management System Interface, Pathport DMX via Ethernet, DMX512, Philips Controls IntelliSight Occupancy and Daylight Sensors, and complete compatibility with the Lytemode family of architectural lighting controls make Optio an ideal choice for any project design.



Fully compatible with Lytemode family of wall stations for local control

Ordering information (base models)

Item number	Description	
OPT3120 – 3 module	Up to 12 Circuits	120V or 277V operation
OPT6120 – 6 module	Up to 24 Circuits	A main breaker option is available on 6 and 9 module cabinets
OPT9120 – 9 module	Up to 36 Circuits	

Custom configurations available.

Capio Plus dimmer rack

Scalable panel systems, IGBT dimming technology

Capio Plus dimmer rack

The Capio Plus dimmer rack provides the outstanding performance and energy efficiency of IGBT dimming technology in a high-density rack. Available in two sizes, a 48-circuit rack and a 96-circuit rack, Capio Plus is perfect for architectural and entertainment dimming applications. The rack's slim profile combines a sleek and attractive appearance with high-performance IGBT dimming modules, able to handle a variety of various load types.

Key features

- Efficient IGBT technology for quiet lamp operation, reduced voltage loss and reduced heat
- Racks bus together for larger applications
- Locking door with integral electrostatic air filter
- High velocity fan provides advanced thermal management and cooling
- Control via Lytemode ILS, DMX512, or Pathport over Ethernet protocol



Capio Plus Dual 2400 Watt Dimming Module using IGBT Technology



IGBT dimming technology

Next generation IGBT dimming products provide reliable, high-performance operation in the most demanding architectural and entertainment environments. IGBT dimmers are intelligent, energy-efficient, quiet, compact, and outperform traditional SCR dimmers.

IGBT dimmers use microprocessor "intelligence" and IGBT (Insulated Gate Bipolar Transistor) power devices to control various types of lighting loads. IGBT dimmers are completely silicon-based and operate silently without the use of chokes. They do not produce any mechanical buzz, are smaller, lighter, and generate fewer neutral harmonics than SCR dimmers. Plus, IGBT dimmers operate with an 800-microsecond rise time, realizing lamp performance, and extending lamp life. Each IGBT dimmer can sense and automatically respond to changes it detects in incoming power, load size, load type, load condition, and temperature.

All IGBT dimmers incorporate a "focus" button feature which allows for manual operation of each dimmer, saving setup time and labor.

Intelligent Raceway

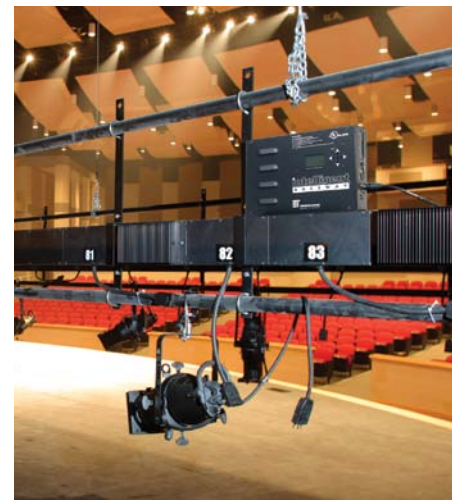
IGBT dimming technology

Intelligent Raceway

The Intelligent Raceway combines both a dimmer rack and a connector strip into one efficient piece of equipment. It provides designers, specifiers, and installers a major advantage over conventional lighting control systems by allowing the dimmer to be located in the raceway and much closer to the control load, making it quick and easy for a single person to set up, focus, and operate. At the heart of the Intelligent Raceway is the silent IGBT dimmer, which is smaller, lighter, and quieter than conventional SCR dimmers. The Intelligent Raceway eliminates the need for costly electrical rooms and dedicated HVAC without sacrificing performance, and can reduce the installed wiring by up to 66 percent. The Intelligent Raceway integrates with DMX 512 and Lytemode architectural lighting systems and is ideal for theatrical, architectural and multi-purpose applications.

Key features

- Efficient IGBT technology for quiet lamp operation, reduced voltage loss and reduced heat
- Up to 96 feet in length
- Up to 48 - 20A dual IGBT dimmer modules (96 circuits)
- Choice of receptacles
- Provides power for dimmed loads, and constant 120V and 208V circuits.
- Control via Lytemode, DMX512, or DMX512 over Ethernet control protocols





Distributed dimming

IGBT dimmers can be located in acoustically sensitive spaces and "distributed" adjacent to their respective dimmed load. Distributed Dimming provides a cost effective lighting control solution with lower installation costs, longer lamp life, and less wasted heat energy. Distributed dimming lowers electrical installation costs by requiring less wire, fewer terminations, the elimination of air-conditioned dimmer rooms, and noise-corrective acoustical treatments. Placing the dimmers at the load allows for a completely flexible and efficient dimming system.

Distributed dimming is available in all Intelligent Raceway, IPS Dimmer Strip and Bak Pak dimming product families.

IPS Dimmer Strip and Bak Pak

Scalable panel systems, portable IGBT dimming technology

Philips IPS dimmer strips

Philips IPS dimmer strips feature quiet convection cooled IGBT dimming for low lamp noise and reliable operation. IPS Dimmer Strips are completely silicon-based and operate silently without the use of chokes, and do not produce any mechanical buzz or hum associated with Silicon Controlled Rectifier (SCR) dimmers. Philips IPS Dimmer Strips are an ideal solution for schools, churches or any facility that does not have space for conventional dimmer racks. Easy to install and use, IPS Dimmer Strips are fed from standard breaker panels.

Features

- Digital dimmer strip with leading and trailing phase dimming
- Compatible with new LED drivers that require reverse phase operation
- DMX512
- Quiet convection cooled dual IGBT dimmers
- Energy efficient - 97.9%
- Dimmer strip features 6 dimmers packaged in three dual modules
- Automatic overload and short circuit protection
- Local focus buttons and LED status indicators
- Simple set up with back lit LCD display and easy button access



Bak Pak individual IGBT dimmer

Portable IGBT dimming technology

Bak Pak individual IGBT dimmer

The Bak Pak is a compact, lightweight dimmer that easily attaches to the lighting fixture it controls. Bak Pak provides dimming capability anywhere, anytime, without the need for a dimmer rack or additional rack space. Bak Pak can be used as a standalone dimmer or as a complement to your existing lighting system. Controlled via DMX512 control protocol, the Bak Pak also has built-in standalone effects that let you instantly change its intensity level, fade rate, strobe, chase sequences, flicker and flashing effects. Never before have designers enjoyed this instant level of convenience and versatility when using dimmers. In facilities with no provisions or room for traditional dimmer racks or panels, simply connect a Bak Pak dimmer to your fixture and plug it into the nearest power source.



Key features

- Efficient IGBT technology for quiet lamp operation, reduced voltage loss and reduced heat
- Individual IGBT dimmer that can be mounted directly to conventional stage lighting fixture
- Choice of 3 mounting hardware options include yoke mount, wall mount, or pipe mount
- Natural Convection Cooling
- Choice of 120V or 230V operating voltage
- Compact 750 watt dimmer
6.82" x 4.53" x 2.93" 2.0 lbs.
- Compact 1200 watt dimmer
6.82" x 4.53" x 3.18" 2.1 lbs.
- Control via DMX512 control protocol, or built-in standalone control or effects
- Extended lamp life
- Energy savings



Lyteswitch

Scalable panel systems, low voltage relay switching panels

The Lyteswitch family of low-voltage relay switching systems offers intelligent, energy saving control of lighting in a wide range of commercial applications. Lyteswitch Relay Panels are offered in scalable configurations of up to 12, 24, 36, or 48 relay circuits, providing maximum flexibility to address the varying demands of today's lighting control needs. The Lyteswitch lighting control panels feature low-profile surface or recessed-mount enclosures, designed to complement Philips Controls Optio Dimming Panels and the recently launched Philips Dynalite Lighting Control System.



High performance mechanically-held latching relays specifically designed for lighting loads (including HID) provide reliable switching of all load types for years of trouble-free operation. Individual field-replaceable single and double pole relays rated for up to 600V.



Programming and monitoring of Lyteswitch lighting control panels is fast and easy using the backlit graphical LCD display and menu buttons. Multicolored LED status indicators provide operation status and troubleshooting information.



Fully compatible with Lytemode family of wall stations for local control

Ordering information (base models)

Item number	Description	Enclosure
Branch circuit fed panels (Universal Voltage 120V/277V), 240V, 347V		
LSW-12-PRO	12 Circuit Relay Panel	LSWBOX-1
LSW-24-PRO	24 Circuit Relay Panel	LSWBOX-2
LSW-36-PRO	36 Circuit Relay Panel	LSWBOX-3
LSW-48-PRO	48 Circuit Relay Panel	LSWBOX-3
3-phase feed with internal branch circuit breakers (120V, 277V)		
LSW-24-PROB	24 Circuit Relay Panel	LSWBOX-3
LSW-36-PROB	36 Circuit Relay Panel	LSWBOX-4
LSW-42-PROB	42 Circuit Relay Panel	LSWBOX-4

Custom configurations available.



Key features

- 1. Energy code compliant:** Lyteswitch panels are designed to fully comply with the energy efficiency provisions of ASHRAE/IES 90.1, CEC Title 24, IECC standards, local and state energy code mandates as well as enable LEED Green Building certification.
- 2. Time scheduling:** Considerable energy savings is provided by the system's integrated astronomical time clock to automatically turn lights off (or on) based on time of day events and calendar schedules.
- 3. Occupancy sensing:** For enclosed spaces with intermittent occupancy, comply with automated shut-off requirements with seamless integration of Philips IntelliSight Occupancy sensors to maximize energy savings.
- 4. Simple to setup:** Using standard CAT5e cable wiring, Lyteswitch systems are easy to connect and setup with "walk-around" programming – Simplify scene settings by selecting the desired relays at the panel and the associated digital control station.
- 5. Easy to use:** Lyteswitch control systems incorporate user friendly digital control stations and intelligent sensors for occupant comfort. End users can easily override the system to adjust the lights regardless of the time scheduled status with applicable CEC Title 24 provisions.
- 6. Occupant notification:** Audible chimes and/or Flashing of lights provide occupant notification minutes before turning the lights off when used with Lyteswitch keypads and occupancy sensors.

Lyteswitch panels offer a broad range of lighting control options to suit a variety of building integration applications. Emergency Lighting Circuits (UL924), Building Management System Interface, DMX via Ethernet, DMX512, Philips Controls IntelliSight Occupancy Sensors and Photocells, and complete compatibility with the Lytemode family of architectural lighting controls make Lyteswitch a perfect fit for any project.



Lytemode architectural

Architectural/commercial control systems

Lytemode

Lytemode

Architectural lighting control system

The Lytemode Architectural Lighting Control System is designed to offer a variety of control solutions, from easy-to-operate keypads to a powerful touch screen controller. This affords you the design flexibility to choose the best control type for your application. You can control a few, or a few thousand channels, and distributed intelligence puts processing power and configuration settings into each device. This eliminates the need for a central processor and provides outstanding control from a virtually unlimited number of control points. Lytemode products include touch screens, wireless handheld stations, and a host of other control interfaces and options. Design and installation are simple, since the same Cat5e cable supplies both data transfer and power to every station.



Lytescene touch screen network master station

- Allows full control of any Master, Mini Master, or Partition Control on the Lytemode network
- Optional Astronomical Time clock
- High performance backlight and customizable background logos
- Powered from the Lytemode network



Lytemode master stations

- Available in 4, 8, 12, and 16 channels, each with 13 preset scenes
- Link together for up to 128 channels of control in a single room
- Scene, channel and fade rate status indicated by LEDs
- Adjustable fade rates from Instant to one hour
- Scenes may be locked to prevent tampering. Optional security covers available.
- No fail memory
- Powered from the Lytemode network



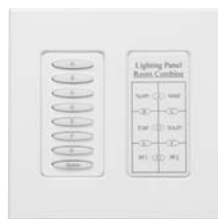
Lytemode mini master station

- Provides 16 channels of individual control plus 13 scenes
- Built in infrared receiver for use with infrared remote
- Master raise/lower control
- Powered from the Lytemode network
- No fail memory without battery backup
- Color kits and custom engraved keypads are available



Lytemode remote stations

- 6-Button provides remote access to 5 scenes plus Off. Combine with 8-Button remote for 13- scene access.
- 2-Button configurable as 2-scene Remote, Master Raise/Lower, Lockout Station, or Partition Remote
- Built-in infrared receiver on 6-button remote
- Master Channel Raise/Lower on 6-button remote
- May be programmed to control one or multiple Master Stations
- No fail memory without battery back-up
- Powered from the Lytemode network



Lytemode partition control

- Compact solution for control of up to 8 partitions (9 rooms)
- Three 8-button controls link together for control of up to 24 partitions (25 rooms)
- Includes 2-gang screwless faceplate, and custom engraved layout insert
- Use with 2-button partition control for local open/close control of one partition (2 rooms)
- Illuminated partition status buttons
- Powered by the Lytemode network
- No fail memory without battery backup

Lytemode DMX

Architectural/commercial/theatrical control systems

Lytemode DMX control systems

Lytemode DMX wall-mount architectural controls

Item number	Description
Control Systems	
ILSDMX45ES	4 Channel Master Station
ILSDMX85ES	8 Channel Master Station
ILSDMX125ES	12 Channel Master Station
ILSDMX165ES	16 Channel Master Station

Accessories	
CE6BES	Custom-Engraved 6-Button Ellipse Series Membrane
CLB8	Rough-In Backbox with 120V Internal Power Supply (4/8 Ch. Master Stations)
CLB16	Rough-In Backbox with 120V Internal Power Supply (12/16 Ch. Master Stations)
ILSCLB8	Rough-In Backbox without Power Supply (4/8 Ch. Master Stations)
ILSCLB16	Rough-In Backbox without Power Supply (12/16 Ch. Master Stations)
CLMIR	Lytemode Handheld Infrared Transmitter
LB-SM	Locking Metal Security Cover (4/8 Master Stations)
LB-LG	Locking Metal Security Cover (12/16 Master Stations)



Lytemode DMX

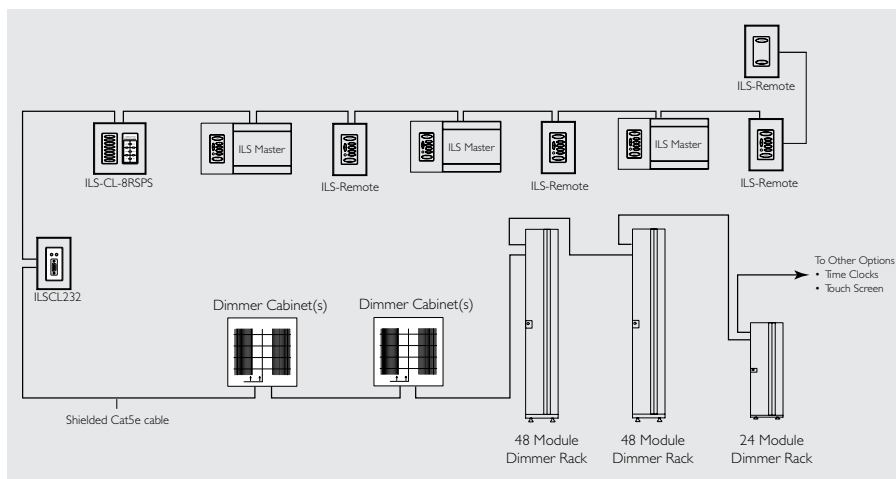
The Lytemode DMX Architectural Lighting Controller offers powerful, yet simple, control of all DMX compatible lighting fixtures and dimmers, in one easy-to-program and architecturally neutral wall station.

With three separate modes of DMX control, each Lytemode DMX Architectural Lighting Controller features large backlit buttons, LED bar graph indicators, and an infrared eye, creating an intuitive and comfortable user interface. Additionally, the Lytemode DMX controllers are USITT DMX 512A compliant offering control for all DMX enabled LED fixtures and intelligent lighting fixtures, and can operate as a backup for lighting control consoles.

Lytemode DMX architectural lighting controllers are compatible with all Lytemode architectural lighting control system products. Therefore they may be used in a complete lighting control solution along with remote button stations, handheld remotes, LyteScene touch screen stations, an astronomical timeclock, occupancy sensors and photocells. Included contact closure inputs allow programmed scenes to be activated remotely.



ILSDMX85ES
8 Channel Master Station



Typical Lytemode topology

3 Modes

- Generate DMX using raise/lower buttons on Master
- Snapshot DMX looks to each of the Raise/Lower channels to layer looks
- Snapshot an entire universe of DMX (512 Channels) to each of the 13 Scenes

Key features

- Available in 4, 8, 12, and 16 Channels
- Up to 8 Masters may be linked together for control of up to 128 Channels
- 13 Scenes plus "Off"
- Individual Raise/Lower control for each channel
- Master Raise/Lower control for all channels
- Adjustable Fade Time from Instant to 60 minutes, with instant override
- Auto-Cycle mode for 5 scenes or 13 scenes
- Cinema Cycle triggers one-time scene sequence
- Lock presets or entire panel from the Master or from a Remote Station
- Compatible with all Lytemode Remote Stations
- Includes rugged ABS screwless faceplate
- Available in a variety of colors using optional Lytemode color kits (consult factory for color availability)
- Illuminated buttons with adjustable LED intensity
- Custom engraved keypads and faceplates available
- Powered from the Lytemode network or 120VAC (with optional powered backbox)
- Non-volatile memory retains settings in the event of power loss

Application highlights



Netflix Corporate Headquarters, Los Gatos, CA

Lecture hall

In a lecture theatre, a flexible control system is an essential part of the lighting.

Lecture theatres need to accommodate a wide range of uses and, as a result, the demands on the lighting control system in this type of application are surprisingly complex. The control system must maintain the most comfortable lighting levels for a wide range of tasks, adapt to a number of room combinations, provide for safe egress in case of an emergency, interface with other systems such as AV and BMS and, of course, maintain the aesthetics of the room and present the best possible appearance at all times.

Users often leave lights on when vacating the space, so it is desirable for the control system to turn off lighting when the room is unoccupied. In a university or similar environment, there is often a BMS responsible for access control and HVAC. To optimize running cost and reduce energy consumption, the lighting control system should notify the BMS if the room is not in use and the air-conditioning not required.

Themed venue

Lighting control in themed venues is vital to ensure appropriate environmental aesthetics and functional illumination.

Themed venues such as restaurants, bars and clubs, can be used for a range of purposes which can vary extensively throughout the course of a day. Lighting levels during preparation and cleaning phases need to be appropriate so that tasks can be carried out in a safe and efficient manner. During times of patronage, adjustments to lighting levels are necessary to provide the appropriate architectural appearance for the atmosphere desired. Dining areas will frequently require a range of settings when used for functions to align with event proceedings such as seating, serving, dining, presentation, and departure. Lighting in podium or stage areas will also require a range of settings for different uses, such as live performances and presentations. Provision should also be included to link the security system ensuring all lighting is turned off when the system is activated, so that energy is conserved outside of operating hours.



Virgin Atlantic Clubhouse; Lighting Design by Focus Lighting, Inc.; Photography by Anton Stark

Application highlights

Hotel ballroom

The appearance of the ballroom is a major selling feature of a hotel.

The lighting control system should present the room in the best possible light. A ballroom generally accommodates a variety of operating modes and hotel staff needs to be able to quickly and easily reconfigure the room between functions, to meet the differing needs of each client. To achieve this aim, the lighting designer would set up the preset scenes for all likely applications and room combinations in advance. Occasionally, stage sets, catwalks and other temporary equipment will be erected in the space, often positioned in front of lighting control points, which makes it imperative to provide duplicate control points in several locations and 'smart' sockets for portable control stations. The control system must be flexible enough to allow third-party access for DMX512 theatrical control signals. For this to be practical, the system must support control of emergency exits and other critical areas. As well as the requirement for flexibility and repeatability of lighting settings, the room must be as energy efficient as possible when not in use.



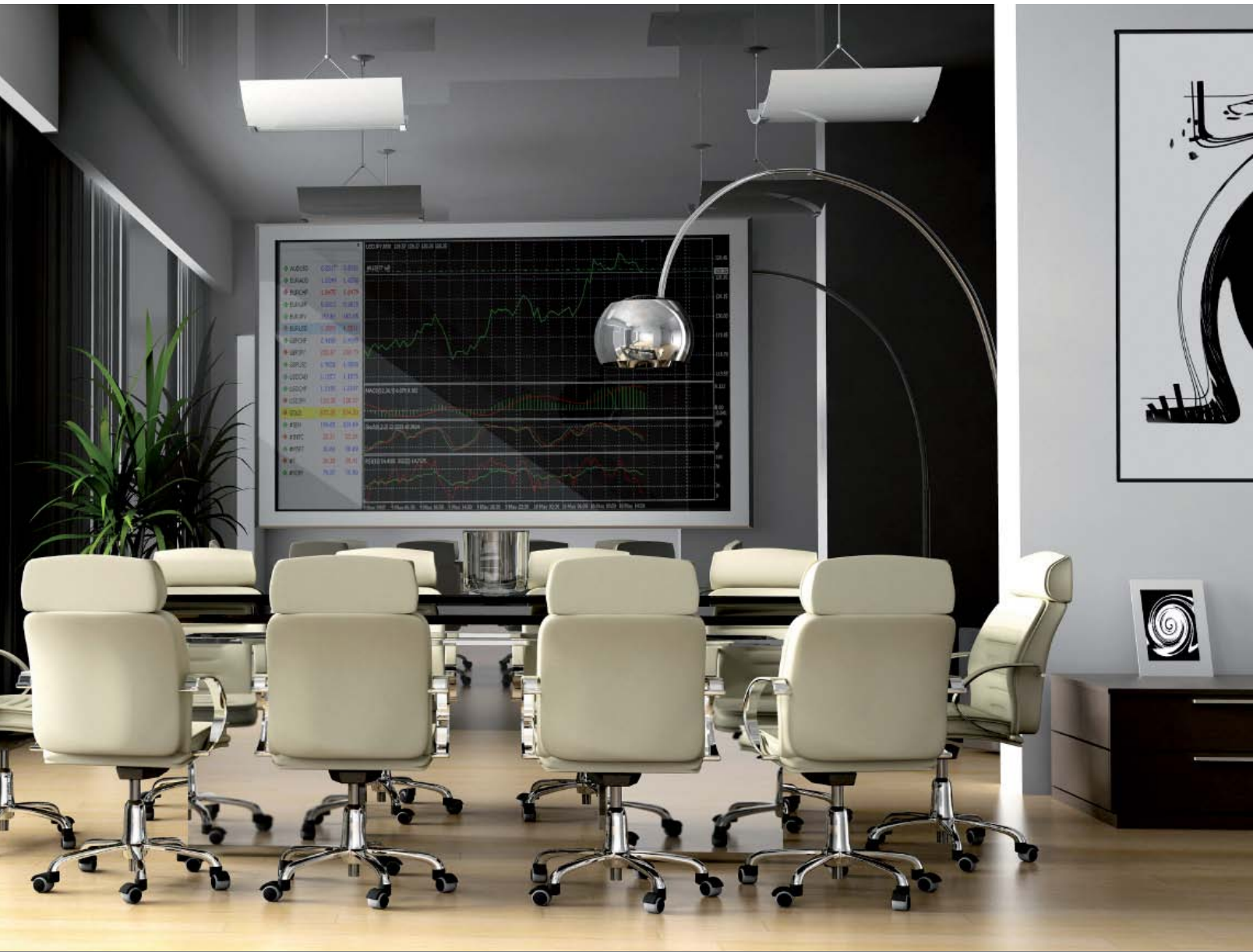
Boardroom

The boardroom is often the centerpiece of a workplace, communicating an overall image of the company.

During corporate presentations, precisely coordinated control of lighting, audio-visual systems and other devices, such as motorized blinds and curtains, is vital. Boardrooms and meeting rooms are often used for corporate hospitality, so it is desirable for a control system to accommodate entertaining.

Networked devices and wallbox dimmers





Contents

Compli Scenist preset scene controls	>	9.22	Screwless faceplates	>	9.29
Dimming amps and control accessories	>	9.23	Dimming	>	9.34
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Compli Scenist

Integrated wall mounted dimming system

Compli Scenist

Compli Scenist provides the control features of a component system in an elegant, all-in-one installation. With Compli Scenist, sophisticated lighting control becomes as simple as pushing a button! It incorporates 5-scene control of four dimmers that installs into a four-gang wallbox. Each dimmer controls up to 800 watts, with a total capacity of 2000 watts.

A smart processor memorizes five presets for each dimmer and composes them into preset scenes. The scenes are selected using the integral keypad. Presets for any dimmer may be manually overridden (but are not erased) at any time. Programming is simple and may be changed at any time. Fade rates between scenes adjust from instantaneous to one hour.

The entire Master, the set function, or an individual scene may be locked to prevent accidental tampering.

Features

- 4 Dimmers neatly fit into 4-gang junction box
- 5 Preset Scenes plus off
- Fade rates from instant up to 1 hour
- Contact closure inputs to trigger scenes or panic
- Any dimmer can be configured as a non-dim

Compli Scenist remote controls

Compli Scenist remote station controls allow scene selection changes or individual channel raise/lower from additional locations.

Compli Scenist

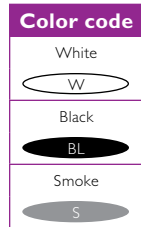


Compli Scenist

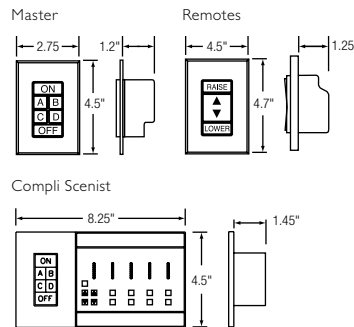


Compli 5-Scene Remote Compli 2-Scene Remote

Item Number	Description	Color Suffix	Wattage Capacity	Watts/Chnl.
CS20451IW	Compli Scenist 4 Channel, 5 Scene, Incand/Inductive loads	White Bezel/ White Door	2000W	800W
CS20451I	4 Channel, 5 Scene, Incand/Inductive loads	Black Bezel/ Smoke Door	2000W	800W
CS20451IES	4 Channel, 5 Scene, Incand/Inductive loads	Smoke, Ellipse Style	2000W	800W
CS20451IESW	4 Channel, 5 Scene, Incand/Inductive loads	White Bezel/ White Door	2000W	800W
CSR5W	Compli Scenist remotes 5-Scene Remote, Plus Off	White Bezel	N/A	N/A
CSR5	5-Scene Remote, Plus Off	Black Bezel	N/A	N/A
CSR2	2-Scene Remote or Raise/Lower	Black Bezel	N/A	N/A
CSR2W	2-Scene Remote or Raise/Lower	White Bezel	N/A	N/A



Dimensions



Dimming Amplifiers and Control Accessories

Integrated wall mounted dimming system



Item Number	Description	Wattage Capacity	Watts/ Chnl.
Filters and relays			
LMHIFO	High-inductance filter option, two 20-amp toroidal filters to reduce lamp noise		
LMQFO	Quad filter option, four 10-amp toroidal filters to reduce lamp noise		
LMERO	Standby relay option, two pole, UL Listed 1008, optional standby (NEC Article 702 only)		
LMRO277	Relay option class 508, single pole, 120 or 277V*		
LMROFAM277	Relay option, 0-10V LED or Mark 7 Ballast, 277V (used to operate 277V 0-10V fixtures with a 120V "FAM" style 0-10V dimmer) (used to activate a single 20-amp 120 or 277V circuit that is energized by any 120V non-dim output).		
Dimming amplifiers			
DA2400VAI	Incandescent and Inductive, one circuit	2400VA	2400VA
DA22000VAI	Incandescent and Inductive, two circuit	2000VA	2000VA
DA110QE120I	Trailing Edge LED and Electronic low-voltage, one circuit	1000W	1000W
DA210QE	Trailing Edge LED and Electronic low-voltage, two circuit	1000W	1000W
DA10HDFI	Fluorescent, Philips PowerSpec HDF ballast, one circuit	10 Amps at 120V/277V	
DA20HDF120I	Fluorescent, Philips PowerSpec HDF ballast, one circuit	20 Amps at 120V	
DA20HDF277I	Fluorescent, Philips PowerSpec HDF ballast, one circuit	20 Amps at 277V	
DA2400EBI	Fluorescent, Philips Advance Mark 10 / EssentialLine Powerline ballast, one circuit, 120V	2400VA	2400VA
DA22000EBI	Fluorescent, Philips Advance Mark 10 / EssentialLine Powerline ballast, two circuit, 120V	2000VA	2000VA
DA2400EB277I	Fluorescent, Philips Advance Mark 10 / EssentialLine Powerline ballast, one circuit, 277V	2400VA	2000VA
DA22000EB277I	Fluorescent, Philips Advance Mark 10 / EssentialLine Powerline ballast, two circuit, 277V	2000VA	2000VA

*Dimming amplifiers are controlled via Philips VA rated dimmers
VA Suffix (Inductive) amplifiers are designed for use with Magnetic Low Voltage Loads

Dimming amplifiers

Dimming amplifiers allow any Philips VA rated dimmer to control larger loads or 277V loads using a 120V dimmer and to interface with various fluorescent electronic dimming ballasts. A single VA dimmer can control a maximum of three dimming amplifiers. This is especially useful and cost-effective when only one channel controls a high-wattage load. Dimming amplifiers are phase-independent. Therefore, the dimmer and dimming amplifier can be fed from the same or different phases. This, in turn, simplifies the design and installation of the system.

Note: Both circuits of a two-circuit amplifier must be on the same phase

Filters

Filters provide additional rise-time to reduce lamp filament noise in noisy circuits and help to extend lamp life. They may be used with any VA rated Inductive dimmer.



Filters - Relays



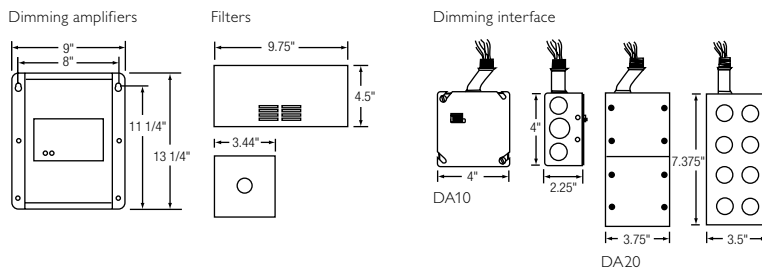
Dimming Amplifiers



DA10HDFI



DA20HDF120I
DA20HDF277I





MultiSet Pro

Wall mounted dimming system

MultiSet Pro

For lower wattage (available in 7 Colors: W, I, AL, LA, BL, BR, GR) faceplate not included

MultiSet pro dimming systems

MultiSet Pro is a revolutionary lighting control system offering networking between dimmers, switches, and control keypads on a single line voltage conductor. No addressing of devices is required, and programming is fast and simple requiring only a finger. MultiSet Pro systems are designed to be EASY to install . . . EASY to program . . . and EASY to operate.

Easy to install

Simple wiring (3-conductor wire) makes the system fast and easy to install. A single "purple wire" (line voltage) connects the devices within an area. If the purple wire is connected to two or more devices, then those devices are automatically addressed to communicate with each other.

Easy to program

Setting preset lighting is as easy as 1-2-3.

- 1 – Touch the "Scene" button on master control station.
- 2 – Adjust each dimmer to your desired lighting level.
- 3 – Press the small "Set" button on each dimmer.

Easy to operate

Tap the "Scene" button and watch as it illuminates and fades the lighting in the entire room to your desired preset lighting level. Elegant fade rates can be programmed for each dimmer and each scene. MultiSet Pro allows you to program the fade rates from instantaneous to 1 hour.

Features

- Up to 13 preset scenes
- Fade rates: instant to 1 hr.
- Dimming of LED, incandescent, fluorescent, electronic ballast, magnetic transformer, low-voltage, as well as non-dim loads and fans
- Two-way communication: Any dimmer turned from OFF to ON causes the master station button to change from OFF to ON
- Any combination of up to 30 control keypads, dimmers, and switches may be used in a single area.
- Connect up to 12 areas together for Timeclock or Master Facility Keypad control using the MultiSet Pro Brilliance Panel
- All devices retain settings in the event of extended power loss and return to last state when power has been restored

All 600W low profile dimmers (MSP) can be installed into a multi-gang configuration to fully rated load without derating. When ganging MHP dimmers and keypads, specific wall box sizes and/or derating should be taken into consideration. VA Suffix (Inductive) dimmers are also designed for use with Magnetic Low Voltage Loads. MSP Dimmers / Masters shown with Philips Lightolier Controls Compli Screwless Faceplates (ordered separately). MHP Dimmers / Masters are supplied with an individual screwless faceplate.

Part Number	Description	Color Suffix	Wattage
MSP600VA	Inductive, incandescent and LED leading edge Preset dimmer, 120 V	*	600VA
MSP300QE	Quiet electronic, Trailing edge ELV Halogen and LED Preset dimmer, 120 V	*	300W
MSP600EB MSP600HDF120	Fluorescent (direct drive dimmer) Preset dimmer, Philips Advance Mark 10 / EssentialLine Powerline Preset dimmer, Philips PowerSpec HDF	* *	600VA 600VA
MSP600ND	Non-dim Non dim switch, 120 V	*	600VA
MSP5ES MSP5AVES MSP8ES MSP8AVES MSCR	Remotes/master control stations 5-Scene Master, Ellipse Series 5-Scene Audio/Visual Master, Ellipse Series 8-Scene Master, Ellipse Series 8-Scene Audio/Visual Master, Ellipse Series 3-Way Remote, Classic Series	* * * * *	N/A N/A N/A N/A N/A
CE6BES CE8BES	Custom engraved master control station keypad - Ellipse Series Custom Engraved 6-Button Keypad Membrane Custom Engraved 8-Button Keypad Membrane	N/A N/A	N/A N/A

* Not all colors available for all devices. Consult factory for availability.

MultiSet Pro heatsink dimmers/masters

For higher wattage loads (available in six colors: W, I, AL, BL, BR, GR). All MultiSet dimmers require a neutral.

Part Number	Description	Color Suffix	Wattage
MHP600VA MHP1000VA MHP1500VA MHP2000VA	Inductive, incandescent and LED leading edge Preset Dimmer Preset Dimmer Preset Dimmer Preset Dimmer	3 Colors 3 Colors 3 Colors 3 Colors	600VA 1000VA 1500VA 2000VA
MHP500QE	Quiet electronic, Trailing edge ELV Halogen and LED Preset Dimmer	3 Colors	500W
MHP600EB MHP1000EB MHP600HDF120 MHP1500HDF120	Fluorescent direct drive dimmer Preset Dimmer, Philips Advance Mark 10 / EssentialLine Powerline Preset Dimmer, Philips Advance Mark 10 / EssentialLine Powerline Preset Dimmer, Philips PowerSpec HDF Philips Preset Dimmer, PowerSpec HDF	3 Colors 3 Colors 3 Colors 3 Colors	600VA 1000VA 600VA 1500VA
MHP1000ND MHP2000ND	Non-dim Non Dim Switch Non Dim Switch	3 Colors 3 Colors	1000VA 2000VA

Color code						
White W	Ivory I	Light almond LA	Almond AL	Black BL	Brown BR	Grey GR

MultiSet Pro

Wall mounted dimming system

MultiSet Pro Brilliance II system

Item number	Description	Color Suffix
BCCII	MultiSet Pro Brilliance II control center Brilliance II Control Center Cabinet	
BRMSM BRCOMMNS BRRLY	Digital control center cards Room card for MultiSet Pro (one card per room required) Timeclock and communication interface card, RS232 Input/output relay card for simple integration	
BM6RES BM8RES	Master control stations Ellipse Series 6-button Master (low-voltage control on multiple rooms) Ellipse Series 8-button Master (low-voltage control on multiple rooms)	* *
CE6BES CE8BES	Custom engraving Custom Engraved 6-button Ellipse Series Membrane Custom Engraved 8-button Ellipse Series Membrane	N/A N/A
CLMIR	MultiSet Pro Brilliance II accessories Handheld Infrared Transmitter	

*Not all colors available for all devices. Consult factory for availability.

Brilliance II devices shown with Philips Compli Screwless Faceplates (ordered separately)



BM6RES
Ellipse Series



BM8RES
Ellipse Series



MultiSet Pro pre-wired cabinet
MHPWDC20



CLMIR



BCCII - Brilliance II Control Center

Part Number	Description	Color Suffix	Wattage
MHP5ES	Remotes/master control stations 5-Scene Master, Ellipse Series	3 Colors	N/A
MHP5AVES	5-Scene Audio/Visual Master, Ellipse Series	3 Colors	N/A
MHP8ES	8-Scene Master, Ellipse Series	3 Colors	N/A
MHP8AVES	8-Scene Audio/Visual Master, Ellipse Series	3 Colors	N/A
MHCR	3-Way Remote	3 Colors	N/A
CE6BES CE8BES	Custom engraved master control station keypad - ellipse series Custom Engraved 6-Button Keypad Membrane Custom Engraved 8-Button Keypad Membrane	N/A N/A	N/A N/A
MS232	MultiSet Pro accessories RS232 Serial Interface for simple integration		
CLMIR	Hand held infrared remote for 5-scene keypads		
MHPWDC20	MultiSet Pro, 10 Device, Pre-wired Dimmer Cabinet		
MDC20	MultiSet Pro, 20 Device, Pre-wired Dimmer Cabinet		
MDC56	MultiSet Pro, 56 Device, Pre-wired Dimmer Cabinet		



MultiSet Pro Brilliance II multi-room lighting control system

The Brilliance II Panel provides networking between up to 12 rooms of MultiSet Pro dimmers, switches, and keypads. Low voltage Master keypads can be used to activate lighting scenes in multiple rooms with the touch of one button. In addition, an astronomical timeclock handles scheduling with ease and simple integration with mechanized shades and audio/visual systems via RS232 or contact closure inputs are both available as options.

Brilliance II master control stations

Every button on each Brilliance II Master Control Station is fully programmable. When used as a room control button, it will turn a room off or on to a desired scene and the button remains illuminated whenever the lights are on within that room. When used as a Master scene button, one simple tap activates multiple rooms to the desired scene or creates a pathway of light. Buttons may also be configured to activate another RS232/485 device for AV integration.



Momentum preset slide dimmers

Clean attractive styling and fine dimmer detailing combine with a vast selection of lamp types and wattages to make Momentum the perfect choice for a wide range of applications.

- Full-range dimming—raise or lower the long-throw slider to achieve the desired light output
- Soft Start turns lights on gently, preserving lamp life
- Red LED guides you to the dimmer's on/off micro-touch switch in a dark space.
- For most architectural light sources, including several fluorescent electronic ballasts
- Multi-location/3-way control with Momentum Preset Remotes
- Captive knob won't pull off

Momentum preset remotes

These designer-style remotes provide multi-location, 3-way on-and-off control of Momentum Preset Slide Dimmers from any number of locations.

- Turns Momentum Preset Dimmer on to preset and off
- Uses existing 3-way wiring (two conductors)

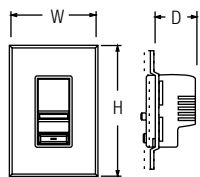
Momentum matching switches

- Ideal for non-dim fixtures, fluorescents or appliances
- Switch is mounted on a matching thin profile heatsink for ganging with other high-wattage devices; faceplate included

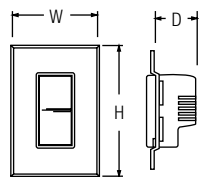
Onset/Momentum

Dimensions: (Includes faceplate)

Depth (D)	Width (W)		Height (H)
Low profile (260, 300, 600W)	2 3/4"	4 1/2"	1 4/10"
Low profile (425, 1000W)	2 3/4"	4 1/2"	1 4/10"
Heatsink (500, 525, 600, 1000W)	2 3/4"	4 3/4"	1 4/10"
Heatsink (625, 1500, 2000W)	4 1/2"	4 3/4"	1 4/10"



Momentum





Onset

Momentum



Wall mounted preset slide dimmer

Commercial

Momentum low-wattage preset slide dimmers

Item number	Description	Color suffix	Wattage capacity
Momentum preset slide dimmers (Most available in 7 Colors -W-I-LA-AL-BL-BR-GR) faceplate not included			
 ZP600	Incandescent, 120V	*	600W
ZP1000	Incandescent, 120V	*	1000W
ZP600VA	Inductive and incandescent, neutral required, 120V	*	600VA
ZP1000VA	Inductive and incandescent, neutral required, 120V	*	1000VA
ZP260QE	Quiet electronic, Trailing edge ELV Halogen and LED, neutral required	*	260W
 ZP425QE	Quiet electronic, Trailing edge ELV Halogen and LED, neutral required	*	425W
Fluorescent (neutral required)			
ZP600HDF120	Philips PowerSpec HDF Direct Drive Dimmers, 120V	*	600VA
ZP600FAM120	Philips Advance Mark 7/ EssentiaLine 0-10V Dimmer, 120V	*	600VA
ZP600EB	Philips Advance Mark 10 / EssentiaLine Powerline Dimmer, 120V	*	600VA
ZP1000EB	Philips Advance Mark 10 / EssentiaLine Powerline Dimmer, 120V	*	1000VA
Momentum preset remote station			
ZPR3	Multi-Location/3-way	*	N/A
Fan controls			
ZP5FC	Preset, 5-amp fan control, variable speed	*	5 Amps

Momentum thin profile, high-wattage (heatsink) preset slide dimmers

Item number	Description	Color suffix	Wattage capacity
Momentum preset slide dimmers (heatsink models) (Most available in 6 colors -W-I-LA-AL-BL-BR-GR) faceplate included			
 MP600	Incandescent, 120V	*	600W
MP1000	Incandescent, 120V	*	1000W
MP1500	Incandescent, 120V	*	1500W
MP2000	Incandescent, 120V	*	2000W
MP600VA	Inductive and incandescent, neutral required	*	600VA
MP1000VA	Inductive and incandescent, neutral required	*	1000VA
MP1500VA	Inductive and incandescent, neutral required	*	1500VA
MP2000VA	Inductive and incandescent, neutral required	*	2000VA
MP525QE	Quiet electronic, Trailing edge ELV Halogen and LED, neutral required	*	525W
 MP625QE	Quiet electronic, Trailing edge ELV Halogen and LED, neutral required	*	625W
Fluorescent (neutral required)			
MP1500HDF120	Philips PowerSpec HDF direct drive dimmer, 120V	*	1500VA
MP1500FAM120	Philips Advance Mark 7/ EssentiaLine 0-10V electronic dimmer, 120V	*	1500VA
MP1500EB	Philips Advance Mark 10 / EssentiaLine Powerline dimmer, 120V	*	1500VA
Momentum multi-location remote station			
MPR3	Multi-Location/3-way	*	N/A
MP10FC	Preset fan control, variable speed	*	10 Amps
15A matching switches			
MP1P	SPST Switch/faceplate	*	15 Amps
MP3P	SPDT Switch/faceplate	*	15 Amps
MP faceplates only (replacement)			
SFPM	Single faceplate: 500, 600, 1000W	*	N/A
DFPM	Double faceplate: 625, 1500, 2000W	*	N/A

* Not all colors available for all devices. Consult factory for availability.

Color code

White W	Ivory I	Light almond LA	Almond AL	Black BL	Brown BR	Grey GR
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Vega

Wall mounted slide to off dimmers

Commercial

Vega



Vega Slider Dimmer (Small) S



Vega Slider Dimmer (Large) L

Item number	Description	Color suffix	Size	Wattage capacity
Incandescent				
V600	Incandescent, 120V	-W-I	S	600W
V1000	Incandescent, 120V	-W-I	S	1000W
V1500	Incandescent, 120V	-W-I	L	1500W
V2000	Incandescent, 120V	-W-I	L	2000W
V600VAU	Inductive and incandescent, universal voltage, neutral required	-W-I	S	600VA
V1000VAU	Inductive and incandescent, universal voltage, neutral required	-W-I	S	1000VA
V2000VAU	Inductive and incandescent, universal voltage, neutral required	-W-I	L	2000VA
V1000LV	Magnetic low-voltage 2-wire; 120V	-W-I	S	1000VA
V2000LV	Magnetic low-voltage 2-wire; 120V	-W-I	L	2000VA
V500QE	Quiet electronic, Trailing edge ELV Halogen and LED	-W-I	S	500VA
V2000NDU	Electronic non-dim switch, universal voltage, neutral required	-W-I	S	2000VA
Fluorescent (neutral required)				
V2000HDFU	Philips PowerSpec HDF direct drive dimmer, universal voltage, 120/277V	-W-I	S	2000VA
V2000FAMU	Philips Advance Mark 7 / EssentialLine 0-10V, universal voltage, 120/277V	-W-I	S	2000VA
V1500EBU	Philips Advance Mark 10 / EssentialLine Powerline dimmer, universal voltage, 120/277V	-W-I	L	1500VA
Vega accessories				
VCKITS	Vega color kit, small, faceplate and slider	-W-I-LA-AL-BL-BR-GR		
VCKITL	Vega color kit, large, faceplate and slider	-W-I-LA-AL-BL-BR-GR		

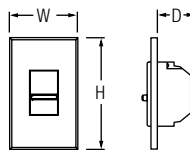
All 600W low profile dimmers can be installed into a multi-gang configuration to fully rated load without derating.

When ganging Vega dimmers, specific wall box sizes and/or derating should be taken into consideration.

VA and LV Suffix (Inductive) dimmers are also designed for use with Magnetic Low Voltage Loads.

Vega dimmers are supplied with an individual screwless faceplate.

Dimensions:	Width	Height	Depth
Heatsink (S=Small)	2.9"	4.5"	1.25"
Heatsink (L=Large)	4.5"	4.5"	1.25"



Vega



Vega slide dimmers

Vega dimmers offer robust design and high-wattage capability in a clean, architectural look. This attractive commercial grade dimmer is capable of dimming up to 2000 watts and controls various types of loads, including incandescent; electronic, low-voltage and trailing edge LED; magnetic, low-voltage and leading edge LED; and fluorescent loads.

- Full-range dimming control
- Non-preset slide down to off
- Heavy-duty construction for long product life
- Captive slider knob won't pull off
- Screwless, thin-profile faceplate included
- Single pole only
- Color kits allow color change in seconds



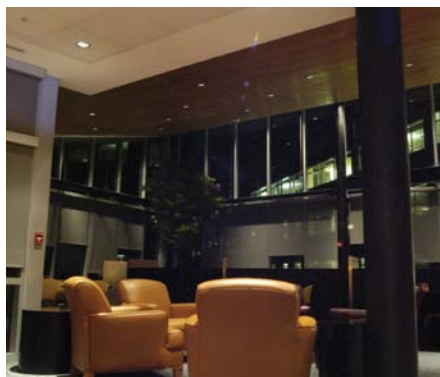
All 600W low profile dimmers can be installed into a multi-gang configuration to fully rated load without derating.

When ganging Momentum dimmers, specific wall box sizes and/or derating should be taken into consideration.

VA Suffix (Inductive) dimmers are also designed for use with Magnetic Low Voltage.

ZP Dimmers shown with Philips Compli Screwless Faceplates (ordered separately).

MP Devices are supplied with an individual screwless faceplate



Onset

Wall mounted preset digital dimmer

Onset dimmers

Onset digital preset dimmers

An intuitive, elegant, and powerful fully digital dimmer, Onset is commonly referred to as “the best dimmer on the market.”

- Lights can be adjusted to any level without affecting the preset
- Lights elegantly fade on and off, creating ambience while extending lamp life
- True presets, not just the last level in memory
- Informative but subtle LEDs indicate preset, current light level and off status
- Power failure memory—returns to last setting after a power interruption
- Intuitive operation up-on/down-off and press to adjust up or down
- Dimming of eight different load types, including electronic low-voltage, fluorescent, non-dim, and fans
- Fits standard decorator-style faceplates (OS Series)

Onset multi-location remotes

Full-function Onset Remote Stations provide full-range dimming control of Onset Dimmers from multiple locations. They have the same intuitive up-on/down-off operation.

- Glowing red LED at top of Remote guides you to the remote in a dark room
- Can adjust the lighting to the preset setting, off or any light level
- Uses existing 3-way wiring (two conductors)

Onset master control

Onset Mastering offers convenient control of up to four dimmers. It's a mini-system with maximum value.

- Touch an Onset Master to turn all the mastered dimmers on, creating a dramatic preset lighting scene
- A second tap of the Master switch turns all the dimmers to full brightness
- Touch and hold the Master to simultaneously adjust all the dimmers without affecting presets
- Mastered dimmers can still be operated independently.
- Master Remotes control Onset Masters from additional locations

Matching switches

Onset 15 Amp designer-style switches offer on/off switching control of non-dim loads.

All 600W low profile dimmers (OS) can be installed into a multi-gang configuration to fully rated load without derating.

When ganging OH Dimmers, or 1000W OS Dimmers, specific wall box sizes and/or derating should be taken into consideration.

VA Suffix (Inductive) dimmers are also designed for use with Magnetic Low Voltage Loads.

OS Dimmers shown with Philips Controls Compli Screwless Faceplates (ordered separately).

OH Devices are supplied with an individual screwless faceplate.

See page 9.26 for dimmer dimensions.



Onset Low-Wattage Dimmer 600W, 1000W



Remote, Master, Master Remote Electronic Switch



Onset High-Wattage Dimmer 600-1000W



Onset High-Wattage Dimmer 1500-2000W



High-Wattage Remote, Master, Master Remote, Electronic Switch

Item number	Description	Color suffix	Wattage capacity
Onset low-wattage digital preset dimmers (low profile design)			
(Most available in 7 Colors -W-I-LA-AL-BL-BR-GR)			
OS600	Incandescent, 120V	*	600W
OS1000	Incandescent, 120V	*	1000W
OS600VA	Inductive and incandescent, neutral required, 120V	*	600VA
OS1000VA	Inductive and incandescent, neutral required, 120V	*	1000VA
OS600LV	Magnetic low-voltage, two wire, 120V	*	600VA
OS1000LV	Magnetic low-voltage, two wire, 120V	*	1000VA
OS300QE	Quiet electronic, Trailing edge ELV Halogen and LED, neutral required, 120V	*	300VA
Fluorescent (neutral required)			
OS600HDF120	Philips Powerspec HDF Direct drive dimmer, 120V	*	600VA
OS600EB	Philips Advance Mark 10 / EssentiaLine Powerline dimmer, 120V	*	600VA
OS1000EB	Philips Advance Mark 10 / EssentiaLine Powerline dimmer, 120V	*	1000VA
Multi-location remote			
OSR3	Multi-location/3-way	*	N/A
OSM4	Master (controls up to four onset dimmers)	*	N/A
Master remote			
OSMR4	For Additional Master Control Locations	*	N/A
Whispurr fan control			
OSWHIS	3-speed	*	1.5 Amps
Onset high-wattage digital preset dimmers (heatsink models)			
(Most available in 6 Colors -W-I-LA-AL-BL-BR-GR and supplied with individual screwless faceplate)			
OH600	Incandescent, 120V	*	600W
OH1000	Incandescent, 120V	*	1000W
OH1500	Incandescent, 120V	*	1500W
OH2000	Incandescent, 120V	*	2000W
OH600VA	Inductive and incandescent, neutral required, 120V	*	600VA
OH1000VA	Inductive and incandescent, neutral required, 120V	*	1000VA
OH1500VA	Inductive and incandescent, neutral required, 120V	*	1500VA
OH2000VA	Inductive and incandescent, neutral required, 120V	*	2000VA
OH500QE	Quiet electronic, Trailing edge ELV Halogen and LED, neutral required, 120V	*	500VA
Fluorescent (neutral required)			
OH600HDF120	Philips Powerspec HDF Direct drive dimmer, 120V	*	600VA
OH1500HDF120	Philips Powerspec HDF direct drive dimmer, 120V	*	1500VA
OH1500EB	Philips Advance Mark 10 / EssentiaLine Powerline dimmer, 120V	*	1500VA
Multi-location heatsink remote			
OHR3	Multi-location/3-way	*	N/A
Whispurr fan control			
OHWHIS	3-speed	*	1.5 Amps
15A Matching switches			
MP1P	SPST switch/faceplate	-W-I	15 Amps
MP3P	SPDT switch/faceplate	-W-I	15 Amps
OH faceplates only (replacement)			
SFPM	Single faceplate: 500, 600, 1000W	*	N/A
DFPM	Double faceplate: 1500, 2000W	*	N/A

*Not all colors available for all devices. Consult factory for availability.

Color code						
White	Ivory	Light almond	Almond	Black	Brown	Grey
W	I	LA	AL	BL	BR	GR

Screwless Faceplates

Multi-gang color-coordinated screwless faceplates

Screwless faceplates

Item number Color suffix Multi-gang wallbox size Faceplate width

(Most available in 7 colors; -W-I-LA-AL-BL-BR-GR)

Compli screwless low profile faceplates

COMFP1	*	1	2 3/4"
COMFP2	*	2	4 1/2"
COMFP3	*	3	5 1/6"
COMFP4	*	4	8 1/8"
COMFP5	*	5	10"
COMFP6	*	6	11 3/4"
COMFP7	*	7	13 5/8"

Add suffix (below) to complete part number.
Example: COMFP1AL

Multi-gang heatsink screwless faceplates

No fins broken (NFB)			
NFB 2S	*	1+1**	5 7/8"
NFB 2SL	*	3	7 5/8"
NFB 2L	*	4	9 5/16"
NFB 3S	*	4	8 1/2"
NFB 3SSL	*	5	10 1/4"
NFB 3SLL	*	6	12"
NFB 3L	*	6	13 7/8"
NFB 4S	*	4+1**	11 5/16"
NFB 4SSL	*	6	10 3/8"
NFB 4SLL	*	7	14 3/4"
NFB 4SLLL	*	8	13"
NFB 4L	*	9	11 1/4"
NFB 5S	*	7	14"
NFB 5SSSL	*	8	15 3/4"
NFB 5SLL	*	9	17 1/2"
NFB 5SLLL	*	10	19 1/4"
NFB 5L	*	12	22 3/4"
NFB 6S	*	7+1**	12 3/16"

Multi-gang heatsink screwless faceplates

Fins broken (FB)			
FB 2S	*	2	4 3/4"
FB 2SL	*	3	6 3/4"
FB 3S	*	3	6 1/2"
FB 3SSL	*	4	8 1/2"
FB 3L	*	5	12"
FB 4S	*	4	8 9/16"
FB 4SSSL	*	5	10 1/4"
FB 5S	*	5	10 3/8"
FB 6S	*	6	12 1/2"
FB 7S	*	7	14"

Vega heatsink screwless faceplates

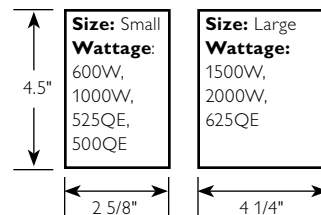
Available in no fins broken (NFB) only			
VNFB2S	*	1+1**	5 3/4"
VNFB2SL	*	3	7 1/4"
VNFB2L	*	4	9 1/4"
VNFB3S	*	4	8 7/16"
VNFB3SSL	*	5	10 3/16"
VNFB3SLL	*	6	12"
VNFB3L	*	6	13 3/4"

* Not all colors available for all devices. Consult factory for availability.

** When installing an even number of small devices, use wallbox size shown above and space one additional box 3/4" away from the others.

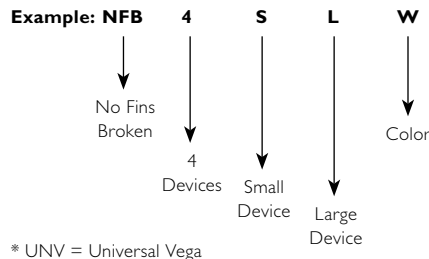
Note: Vega slider knobs are included (Vega Color Kit) with faceplates when ordered in colors AL, BL, BR or GR.

Heatsink sizing chart



Faceplate key

S = Small (Single-Gang)
L = Large (Double-Gang)
FB = Fins Broken
NFB = No Fins Broken
VNFB = Vega



* UNV = Universal Vega



Locking metal security covers are available to fit standard 1, 2, and 4-gang installations of Philips Controls dimmers and master and remote keypads. Security covers are fabricated from 16 gauge steel and finished in textured paint. Two keys are provided. All security covers are field paintable.

- LB-1G 1-gang
- LB-2G 2-gang
- LB-4G 4-gang
- LB-SM 4 and 8 Channel Lytemode Master
- LB-LG 12 and 16 Channel Lytemode Master
- LB-TST 7" touchscreen locking cover



Dream in color

Multi-Gang Compli screwless low profile faceplates

- Compatible with Lytemode, MultiSet Pro, Onset, Momentum, and IntelliSight dimmers and switches
- Sleek, beveled edges
- Snap-on application for most decorator-style, electrical wiring devices, including switches, outlets and Philips dimmers
- Back plate ensures proper alignment of all devices in a multi-gang installation
- Faceplate sizes accommodates up to seven devices

To order Compli faceplates

Match the number of dimmers/devices to the number of openings on the faceplate. When ganging 1000W dimmers, inside fins must be removed. Derating is required.

Multi-gang, heatsink screwless faceplates

(NFB = No Fins Broken)

(FB = Fins Broken)

- Streamlined, one-piece faceplate
- Sleek, beveled edges
- Accommodates ganged, high-wattage dimmer
- For heatsink dimmers (MHP/MP/OH)

Vega Multi-gang heatsink screwless faceplates

- Sleek, beveled edges
- Six different colors
- Easy snap-on application
- Streamlined appearance
- Ensures proper alignment

To order Multi-Gang and Vega Multi-gang faceplates

- Determine the quantity and size (small or large) of all devices in the arrangement.
- Determine if device fins will be broken.
FB = Fins Broken.
NFB = No Fins Broken.
Vega (VNFB) fins are not intended to be broken
- Arrange devices to suit faceplate and note part number. Small devices are always aligned to one side of the faceplate while large devices are on the other side.
- Add color suffix to each faceplate part number.
- See chart above for required multi-gang wallbox size.

Color code

White W	Ivory I	Light almond LA	Almond AL	Black BL	Brown BR	Grey GR
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LED control technology overview



Layers of light are created by dimming lighting circuits to different levels

Solid state lighting, commonly referred to as LED Lighting, is quickly gaining acceptance as a means of general purpose lighting in addition to its already widely accepted role of task lighting and color changing lighting effects. LED lighting offers many unique advantages over incandescent and fluorescent sources, but also presents many new challenges for control.

As with all lighting sources, layers of light are created by dimming lighting circuits to different levels. LED fixtures respond favorably to dimming and the following performance improvements are realized:

- Increased life
- Reduced energy consumption
- Higher efficacy

LED lighting also presents several new challenges to dimming controls. Light flicker and drop-out, with possible damage to the dimmer or the LED driver are all possible if the fixture and dimmer are not compatible.

The first step in determining if a dimmer is compatible with an LED fixture is to determine which type of control the LED fixture requires. This information should be located on the fixture datasheet.

There are five common types of LED fixture control:

- Leading-edge or forward phase control (FPC)
- Trailing-edge or reverse phase control (RPC)
- 0-10VDC
- DALI (Digital Addressable Lighting)
- DMX512 (or DMX)

LED control technology overview



Leading edge or forward phase control dimming

Most of the 150 million installed dimmers in North America are FPC devices. When retrofitting new LED fixtures with existing dimming equipment it is important to verify the LED fixture will be compatible with a FPC dimmer. Philips FPC dimmers are typically identified as "Incandescent" or "Inductive." Most Philips Inductive dimmers have the suffix "VA" in the part number.

The advantages of FPC dimmers with LED fixtures include a low cost dimmer and compatibility with existing wiring. The primary disadvantages are that FPC dimmers offer the lowest performance- typically resulting in reduced dimming range, and often have a minimum load size that exceeds the rating of a single or very small number of LED fixtures.

Trailing edge or reverse phase control dimming

Reverse phase control dimmers are constructed using a Field Effect Transistor (FET) or Insulated Gate Bipolar Transistor (IGBT) device. These dimmers are typically referred to as "Electronic Low Voltage" dimmers. Philips RPC dimmers have a "QE" suffix in the part number.

RPC dimmers usually offer better dimming range and reduced flickering with LED fixtures compared to FPC dimmers. In addition, RPC dimmers often have smaller minimum load requirements allowing for better performance with single fixtures and very small loads. However, RPC dimmers should only be used with LED Fixtures requiring an RPC or Trailing Edge dimmer.

LED controls options

Regardless of the type of LED control required for the application, Philips Controls offers a range of solutions for general purpose LED lighting, high-performance LED lighting, and theatrical or themed LED color lighting.

0-10VDC control dimming

These dimming devices have two separate circuits in the device- one line voltage circuit that actually switches power to the fixture on and off, and a separate low voltage circuit that provides a reference voltage to communicate the dimming level to the fixture. These dimmers are also commonly referred to as Fluorescent Ballast controls, or more specifically, a Philips Advance Mark 7 ballast control. Philips 0-10V dimmers incorporate "FAM" suffix in the part number.

0-10V dimmers offer the highest dimming range and most consistent performance with large numbers of LED fixtures due to the application of constant power to the LED driver module and the dedicated control wiring. The single disadvantage is the extra pair of wiring conductors required for the low voltage control signal.

DALI (Digital Addressable Lighting)

The Digital Addressable Lighting Interface (DALI) defines a new standard for the digital communication between the individual components of a lighting system. DALI provides simplified communication and installation, yet maximum control and flexibility. Each DALI loop can control up to 64 devices, each of which is individually addressable (unlike analog interface systems which can only be addressed in common). Flexible group control is provided as each DALI loop can support up to sixteen (16) individual groups and ballasts may belong to any or all of the sixteen available groups for unparallelled lighting scene definitions.

Software control allows easy configuration and modification. Dimming specifications can be finalized much later in a project and buildings can be adapted more easily to meet clients' future needs. Lighting designs can be programmed and simulated on a PC for later downloading into the installation. This commissioning method also offers the flexibility of room layout changes without rewiring.

DMX512 control

DMX controls provide a high-speed low-voltage data signal to LED fixtures that are DMX compatible. Typically the LED fixtures will have constant power applied, and the fixtures are simply instructed to turn all LEDs off during an "Off" scene rather than removing power to the fixture. The data is separated into 512 channels- and the intelligent LED fixture receives all 512 channels, determines which channels are applicable to that fixture based upon its DMX "address," and translates the data in those channels into dimming levels for each of the LED colors or attributes. For example, a typical RGB LED fixture will require 3 DMX Channels, with RED residing on channel 1, GREEN on channel 2, and BLUE on channel 3. Data can then be sent to the fixture instructing the Red LEDs to dim to 100%, the Green LEDs to dim to 0%, and the Blue LEDs to dim to 75%- producing a Magenta color output from the fixture.

DMX controls are typically required where color changing LED fixtures are used, or where lighting scenes often change to create a sense of animation or excitement. The primary disadvantages of DMX controls include a specific wiring topology and type, and some level of programming in order to setup basic colors and scenes.



Dimming

The brightest idea in sustainable fluorescent lighting

The ability to control fluorescent lighting by pairing dimming-capable ballasts with occupancy sensors, daylight controls, and building management systems represents an outstanding opportunity for businesses to save on energy costs while providing appropriate levels of light.

Compared to fixed-output T12 and T8 systems, controllable fluorescent technology can reduce lighting operational costs by up to 65%² when paired with daylight harvesting and occupancy sensors. Dimming capability also improves the flexibility of the lighting systems to provide task-appropriate illumination in specific situations such as conference rooms, offices, and training centers where greater lighting control is needed (see the chart below).

This technology is also easy to implement on any scale with the wide array of dimmable solutions available — from building-wide integration with daylight and occupancy sensors for automated control of lighting levels to a simple ballast and switch replacement.

In addition, these systems can potentially help companies comply with energy efficiency regulations — such as California’s Title 24 — and achieve environmental certification through programs like the US Green Building Council Leadership in Energy and Environmental Design (LEED) rating system.

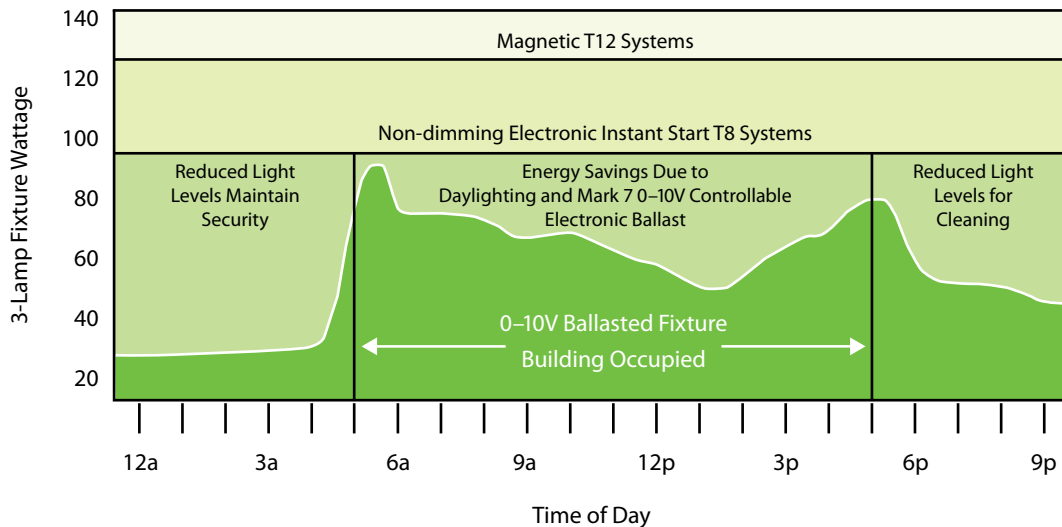
Philips Advance controllable lighting solutions — The right fit for any application

As a leader in sustainable lighting solutions, we offer a versatile portfolio of dimmable fluorescent ballasts that make incorporating the sustainable benefits of this technology easy. To learn more about Smart Solutions, please visit www.philips.com/advance.

- Mark 10 Powerline
- Mark 7 0–10V
- ROVR digital addressable ballasts
- PowerSpec HDF
- EssentialLine

²Source: “Energy saving lighting control systems for open-plan offices: A field study,” National Research Council Canada, v. 4 no. 1, July 2007 pg. 7-29

Comparison of Fixed and Dimmable Fluorescent Lighting



PowerSpec HDF ballasts

Fluorescent dimming

PowerSpec HDF Table

Item number	Lamp qty.	Lamp type	Lamp wattage	System wattage	Dimming range	Voltage
T4 Compact fluorescent						
HDF226T4	1	CFQ, CFTR	13/18/26/32/42	18/23/30/36/47	100% - 3%	120 - 277
	2	CFQ, CFTR	13/18/26	33/41/55	100% - 3%	120 - 277
HDF242T4	1	CFTR	57/70	65/75	100% - 3%	120 - 277
	2	CFTR	32/42	75/98	100% - 3%	120 - 277
T8 Lamps						
HDF132T8	1	T8	17/25/32	20/28/35	100% - 3%	120 - 277
HDF232T8	2	T8	17/25/32	36/52/68	100% - 3%	120 - 277
HDF332T8	3	T8	17/25/32	56/79/100	100% - 3%	120 - 277
HDF432T8	4	T8	25/32	96/116	100% - 3%	120 - 277
T5 Compact fluorescent and linear lamps						
HDF140T5	1	FT5	36(39)/40	44/45	100% - 3%	120 - 277
HDF240T5	2	FT5	36(39)/40	75/76	100% - 3%	120 - 277
HDF128T5	1	T5	14/21/28	20/28/37	100% - 1%	120 - 277
HDF228T5	2	T5	14/21/28	38/54/63	100% - 1%	120 - 277
HDF224T5	1	T5HO	24	30	100% - 1%	120 - 277
	2	T5HO	24	57	100% - 1%	120 - 277
HDF239T5	1	T5HO	39	50	100% - 1%	120 - 277
	2	T5HO	39	87	100% - 1%	120 - 277
HDF154T5	1	T5HO	54	65	100% - 1%	120 - 277
	1	FT5	55	59	100% - 1%	120 - 277
	1	T5 Circ	55	59	100% - 1%	120 - 277
HDF254T5	2	T5HO	54	125	100% - 1%	120 - 277
	2	FT5	55	114	100% - 1%	120 - 277
	2	T5 Circ	55	114	100% - 1%	120 - 277

Dimming range dependent on control system



PowerSpec HDF ballasts

PowerSpec HDF ballasts provide high-performance, full-range dimming of linear and compact fluorescent light sources. PowerSpec HDF is ideal for aesthetic and architectural dimming in commercial spaces, as well as sophisticated, energy-oriented applications. PowerSpec HDF smoothly dims linear T5 lamps to 1% of full output, and T8, compact T5, T4, Triple Tube and Quad Tube, and circular T5 fluorescent lamps to 3% of full output.

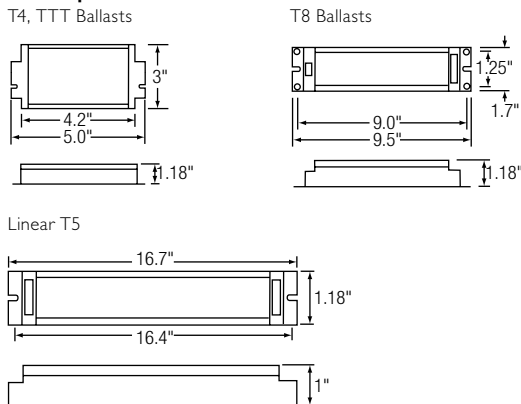
Reliability

The system consists of the PowerSpec HDF electronic dimming ballast, a dimmer and, in certain applications, an interface—all connected by standard three-conductor, line-voltage wiring. The PowerSpec HDF ballast incorporates a feedback circuit, which monitors lamp performance, continuously correcting the current input and cathode voltage to achieve consistent, flicker-free operation. PowerSpec HDF turns on to any intensity and maximizes lamp life via its programmed start microprocessor. This technology accurately preheats rapid start lamps with a minimal amount of voltage to minimize glow current and its associated degrading effect on lamp life.

Compatible with Philips HDF Controls product families

- IntelliSight
- MultiSet Pro
- Optio
- Capio Plus
- Momentum
- Vega
- Onset

PowerSpec HDF dimensions



Mark 10 Powerline

Dimming made easy

For companies looking to make their fixed-output linear T8, 4-pin CFL, and T5 fluorescent systems more cost-effective and sustainable, Mark 10 *Powerline* electronic ballasts provide an easy solution without the need for additional control leads.

Installation is as easy as 1, 2, 3

1. **Replace the ballast — simply wire the Philips Advance Mark 10 Powerline ballasts into the existing fixtures (rapid-start sockets are required).**
2. **Replace the switch — the dimming control connects to your existing wiring.**
3. **Dim the lights!**

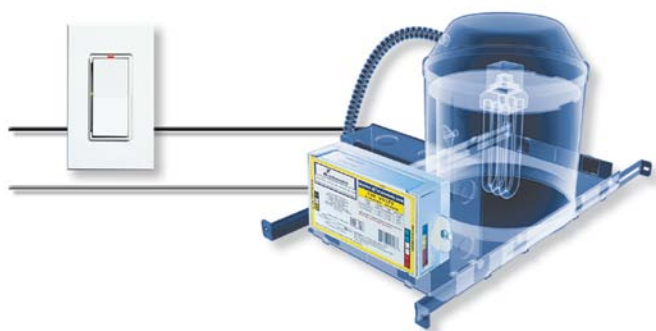
It's that easy to bring the convenience and flexibility of fluorescent dimming to conference rooms, private offices, auditoriums, architectural cove lighting — anywhere dimming is required but control leads are not already installed.

Mark 10 Powerline features include

- No control leads for easy installation without additional wiring
- Full-range continuous dimming (100% light output down to 5% — T5 to 1%) supports LEED performance standards
- Lamp ignition at any power level — no need to ramp up to full light before dimming
- Programmed start operation optimizes lamp life in frequent starting conditions
- Operation above 42 kHz minimizes risk of interference with infrared remote control systems and provides continuous, flicker-free dimming

2-Wire dimming

No additional lead wires required



Also available for T8 and T5 applications

Mark 7 0–10V

Maximum versatility with 4-wire dimming

The Mark 7 0–10V series of dimmable electronic ballasts incorporates separate control leads for use with a wide array of controllers, including occupancy sensors, daylight harvesting controls, and building management systems from more than 30 manufacturers.



When paired with energy-efficient linear T8, 4-pin CFL, or T5 lamps, Mark 7 0–10V ballasts optimize the benefits of such popular sustainable lighting techniques as daylight harvesting, occupancy sensors, and load shedding to drive maximum energy cost savings and reduce environmental impact.

Mark 7 0–10V features include

- Available in linear T8, 4-pin CFL, and T5 models
- Full-range continuous dimming (100%–5% — T5 to 1%) supports LEED performance standards
- Programmed start operation optimizes lamp life in frequent starting conditions
- IntelliVolt technology allows operation at both 120V and 277V input line voltage, simplifying ordering, installation, and SKU requirements



Also available for T8 and 4-pin CFL applications

EssentialLine

Improved total cost of ownership

Philips Advance EssentialLine family of dimming ballasts for T8 lamps provides lower up-front costs while maximizing energy savings.

The EssentialLine family of dimmable ballasts offers an alternative-feature set ballast for both Powerline and 0-10V dimming systems. It provides a lower up-front cost while achieving similar energy savings as other solutions over the life of the system. These ballasts optimize the benefits of such popular sustainable lighting techniques as daylight harvesting, occupancy sensing and load shedding to satisfy the need for a more affordable and flexible controllable lighting solution.

Meets NEMA premium, CSA energy efficiency requirements and RoHS compliance

- Helps your efforts to create a more sustainable workplace
 - Continuous dimming range from 100% light output down to 20%
- Provides task appropriate lighting, while supporting regulations and performance standards such as LEED Programmed start operation
- Potentially extends lamp life in frequent switching applications such as occupancy sensors and daylight harvesting



ROVR digital addressable ballasts

Intelligent control

Philips Advance ROVR ballasts reflect the latest approach to controlling fluorescent lighting. Rather than simply responding to instructions from control components, ROVR ballasts enable two-way communication, allowing for virtually unlimited design flexibility while creating sustainable lighting systems.

This two-way communication is made possible through the industry-standard digital communication protocol known as DALI (Digital Addressable Lighting Interface). The DALI protocol allows up to 64 individual ballasts/devices to be controlled — in up to 16 groups — on each DALI loop.

The DALI protocol allows ROVR ballasts to

- Provide users with operational data
- Control the output of individual luminaires
- Fully support sustainable design principles such as daylight harvesting and occupancy sensors
- Enable a proactive response to ballast/lamp maintenance issues

ROVR features include

- Full-range continuous dimming (100% light output down to 3% — T5 to 1%) supports LEED performance standards
- Programmed start operation optimizes lamp life in frequent starting conditions
- IntelliVolt technology allows operation at both 120V and 277V input line voltage from 50/60Hz, simplifying ordering, installation, and SKU requirements
- Operation above 42 kHz minimizes risk of interference with infrared remote control systems and provides continuous, flicker-free dimming
- Color-coded, poke-in connectors for CFL, T5, and 4-lamp T8 ensure wiring accuracy and minimize installation time



Energy management overview

A variety of reliable, effective control options based on occupancy and daylight sensing technology combine to create cost saving energy solutions for nearly any setting.





Contents

- Occupancy and daylight sensors > 9.42
- Wireless occupancy and daylight sensors > 9.43
- Classic wired occupancy sensors > 9.44
- Services overview > 9.47



Notable code provisions at a glance
(source: <http://www.energycodes.gov/>)

- √ Interior automatic lighting shutoff
(IECC, ASHRAE/IES 90.1, CEC Title 24)
- √ Interior space controls
(IECC, ASHRAE/IES 90.1, CEC Title 24)
- √ Interior light level reduction control
(IECC, Title 24)
- √ Daylight harvesting and multi-zone
control (IECC, CEC Title 24)
- √ Task lighting controls (ASHRAE/IES 90.1)
- √ Demand Response (CEC Title 24)
- √ Exterior lighting control
(IECC, ASHRAE/IES 90.1, CEC Title 24)
- √ Display/Accent lighting control
(ASHRAE/IES 90.1, CEC Title 24, IECC)

Benefits of lighting controls in today's buildings



Enhance occupant comfort and productivity

Lighting controls provide solutions that enable occupants to change the light levels to their optimum level of comfort and preference.

- Occupants and tenants spend a large portion of their days in the office, and are demanding better working environments that can spur innovation and boost productivity⁽⁷⁾
- Lighting systems should adapt to occupant needs for team space, open floor plans and offices. Flexible lighting can motivate employees by accommodating varying work styles and business demands.

Be part of a greener future

Efficient lighting (supported by lighting controls) can help contribute multiple points towards Leadership in Energy and Environmental Design (LEED) Certifications⁽⁶⁾.

- An increased focus on green buildings has accelerated the drive to achieve best practice environmental and sustainable standards in new and remodel construction projects.
- Voluntary green rating tools and programs in the building environment have achieved a global recognition for change. Such regulators include the US Green Building Council's LEED rating for new construction and existing buildings.

Reduce energy costs

Lighting controls can reduce lighting energy consumption by 50% in existing buildings, and by at least 35% in new construction⁽⁴⁾.

- Based on current global energy consumption, world energy demand is set to increase by 50% before 2030⁽¹⁾. According to Energy Star⁽²⁾, electric lighting contributes to around 30% of electricity consumption in a commercial building or tenancy.
- A 50,000 square foot commercial building will spend about \$45,000 on lighting energy each year⁽³⁾

Comply with energy codes

Lighting controls help a building stay within the Lighting Power Allowance prescribed by the applicable energy code.

- Lighting controls enable building owners to qualify for numerous rebates and incentives from local utilities and state/federal energy program administrators⁽⁵⁾.

1. Source: (2007) CSIRO and The Natural Edge Project, Energy Transformed: Sustainable Energy Solutions for Climate Change Mitigation, pp 6

2. Source: EnergyStar, ENERGYSTAR Buildings Manual "Lighting", November 25, 2008. http://energystar.gov/ia/business/BUM_lighting.pdf

3. Source: ACEEE - American Council for an Energy Efficient Economy - www.aceee.org/press/op-eds/op-ed5.htm

4. Source: Dilouie, Craig, Lighting Control for Existing Buildings", www.buildings.com, June 2009, www.buildings.com/Magazine/ArticleDetails/tabid/3413/ArticleID/8495/Default.aspx

5. Source: Consortium For Energy Efficiency (CEE) Commercial Lighting Program Summary - <http://www.cee1.org/files/FINALCommercialLightingProgramSummary.xls>

6. Source: DiLouie, Craig, "Lighting and LEED", Lighting Control Association, February 2009, www.aboutlightingcontrols.org/education/papers/greendesign.shtml

7. Source: Light Right Consortium. "Research Study on the Effects of Lighting on Office Workers", November 2003, www.lightright.org/results/index.htm (Ref: Figure 2)



IntelliSight

Occupancy sensors and daylight regulation

The Philips IntelliSight range of low-profile occupancy and photo sensors provides tangible energy savings via occupancy sensing and daylight harvesting to prevent unnecessary electricity usage while complying with the energy code requirements of commercial facilities. Using advanced sensing technology, combined with the intelligence to learn and adjust to occupancy patterns, IntelliSight sensors will not only save energy by turning on the lights only when needed, but will minimize disruption to the workspace by ensuring that the lights remain on when the room is occupied.

IntelliSight uses multi-detection technology to deliver extended range and enhanced sensitivity for optimal energy savings. The market is looking for simple solutions to save energy — use IntelliSight sensors to instantly save dollars and reduce energy spend at the facility.

Key features

Wall switch replacement sensor

- Multiple detection technologies providing up to 4000 sq. ft. coverage
- Directly replaces existing wall switches
- Dimming for Light level adjustment
- Universal voltages of 120 and 277 VAC power with single ground connector
- Selectable audible tones to alert occupants prior to shut-off
- Compliant with CEC Title 24 (Manual ON, Auto OFF)

IntelliSight low voltage ceiling sensor

- Standard and High-bay sensing models
- Multiple detection technologies providing up to 2500 sq. ft. coverage
- Intelligent self-adjusting time-out learns occupancy patterns
- Ambient light override (hold-back) – lights will not turn ON when sufficient light levels are detected
- Low-profile, attractive design, aesthetically pleasing on the ceiling
- User-friendly, hand held, infrared programming unit (sold separately) for easy programming without ladders or other tools.

IntelliSight relay and dimming power packs

- 1, 2, and 4 circuit switching packs
- 2 circuit dimming packs supporting 0-10V (Mark 7 and LED) fixtures and HDF ballasts
- Occupancy and Daylight Harvesting applications

IntelliSight networks

The IntelliSight network is a versatile, occupancy sensing system designed to operate as a fully functional single room solution, or provide seamless integration with complementary Philips Controls Lyteswitch, Optio and Capio Plus systems for added energy savings across larger areas and multiple zones spanning the entire facility.



ITSPCS



ITSCS



ITSRP1PU



ITSIR2

Ordering Information

Item	Description	Color Suffix
Wallbox sensors		
ITS2U	IntelliSight Two-Wire Sensor Switch 120/277V	W, LA, I
ITSRB	IntelliSight 3-Way Remote	W, LA, I
ITSDU	IntelliSight VA Rated Dimming Sensor 120/277V	W, LA, I
ITSHDFU	IntelliSight HDF Fluorescent Dimming Sensor 120/277V	W, LA, I
ITSEBU	IntelliSight Philips Advance Mark 10 / EssentialLine Powerline Dimming Sensor 120/277V	W, LA, I
ITSABU	IntelliSight Dual Circuit Sensor Switch 120/277V	W, LA, I
Ceiling sensors		
ITSCS	IntelliSight Low-Voltage Ceiling Occupancy Sensor	
ITSCSHB	IntelliSight High Bay Low-Voltage Ceiling Occupancy Sensor	
ITSPCS	IntelliSight Low-Voltage Ceiling Photocell (Daylighting)	
Relay power packs		
ITSRP1PU	IntelliSight Relay Power Pack, 1 Circuit, 120/277V	
ITSRP2U	IntelliSight Relay Power Pack, 2 Circuit, 120/277V	
ITSRP4U	IntelliSight Relay Power Pack, 4 Circuit, 120/277V	
ITSRPHDF2U	IntelliSight Relay Power Pack, 2 Circuit, HDF Dimming 120/277V	
ITSRPHDF4U	IntelliSight Relay Power Pack, 4 Circuit, w/2 HDF Dimming Circuits 120/277V	
ITSRPFAM2U	IntelliSight Philips Advance Mark 7 / EssentialLine 0-10V or LED Dimming Relay Power Pack, 2 Dimming Circuit or 4 Circuit (w/ 2 Dimming)	
ITSRPFAM4U	IntelliSight Philips Advance Mark 7 / EssentialLine 0-10V or LED Dimming Relay Power Pack, 2 Dimming Circuit or 4 Circuit (w/ 2 Dimming)	
Accessories		
ITSIR2	IntelliSight Infrared Remote Programming Unit (sold separately)	
ITSMS	IntelliSight Multi-location, Remote Switch for Power Packs	W, LA, I

OccuSwitch Wireless

Wireless occupancy and daylight sensors



OccuSwitch wireless: occupancy sensor with daylight regulation

The Philips OccuSwitch wireless control system is an advanced wireless occupancy sensor system that automatically turns lights off when a workspace is unoccupied, saving energy and creating a more sustainable work environment. The system consists of a wireless ceiling mounted sensor that communicates to one or more wall switches and dimmers. When linked to the Multi-sensor the switch will operate with daylight hold-back and the dimmer will perform daylight harvesting.

With OccuSwitch wireless, saving money on lighting expenses has never been simpler! Make installing or retrofitting your current system—quick, easy and energy-efficient.

Using a combination of passive infrared (PIR) technology and advanced logic for detecting major and minor motion, the sensor recognizes when the room is occupied (or unoccupied) for maximum performance and energy savings. The system adapts to accommodate varying user occupancy patterns with built-in intelligence to automatically adjust the OFF time delay.

The OccuSwitch wireless control system is a unique indoor “link and go” system that is perfect for retrofits and new installations in commercial applications. Uncompromising on style, the functional design allows for easy setup and adjustments to system settings via front accessible buttons and LED indicators.

Installer-friendly features make it easy to test sensor coverage and wireless communication. The system can very easily be setup to support switches installed in multi-gang or multi-way configurations to flexibly handle a variety of field applications.

Key features

- **Easy-to-install retrofit:** Wireless controls means no sensor wiring or separate ceiling-mounted power packs, so installation is easy. Sensor coverage can be reassigned for optimal coverage in minutes without rewiring.
- **Advance occupancy sensing:** The sensor will automatically adjust the sensitivity based on the level of activity for major and minor motion. This optimizes energy savings and helps preserve lamp life.
- **Sleek low profile design:** Stylish low-profile design easily blends into any professional setting. There are no bulky components.
- **Intelligent OFF delay timer:** Optimizes system performance for various applications by adjusting to the occupancy behavior. After the initial setting, the switch-off time delay is automatically adjusted based on the user's occupancy pattern.
- **Built-in retractable shield:** During installation the retractable sensor shield can be rotated to partially mask the sensor's field of view and prevent unwanted movement detection.
- **Expandable coverage:** To handle various application needs, the system is flexibly designed to support a wireless network of multiple sensors, switches and dimmers (in any combination).
- **10 year battery lifespan design:** Provides worry free maintenance, just install and leave for long lasting performance.
- **Manual-ON/auto-OFF:** Compliant with applicable California Title 24 energy efficiency code.

Delivering the performance today's marketplace demands

Facilities across the country are looking more closely than ever at ways to conserve energy, meet increasing “green” standards, and save money. Philips OccuSwitch Wireless control system is the ideal solution! This simple retrofit can help you start saving energy immediately and help to meet federal, state and local environmental regulations.

OccuSwitch Wireless can be easily installed in a variety of applications throughout your facility—with no wires to pull for hassle-free installation.

Ordering information

Part number	Description	Color
LRA1721/00	OccuSwitch Wireless Switch, 120/277V	White
LRA1721/01	OccuSwitch Wireless Switch, 120/277V	Almond
LRD1730/00	OccuSwitch Wireless Dimmer, 120/277V	White
LRD1730/01	OccuSwitch Wireless Dimmer, 120/277V	Almond
LRM1743/00	OccuSwitch Wireless Occupancy Sensor	—
LRM1760/00	OccuSwitch Wireless Multi Sensor	—



LRM1743
Wireless Occupancy Sensor



LRM1760
Wireless Multi Sensor



LRD1730
Wireless Dimmer



LRA1721
Wireless Switch



OccuSwitch

Classic wired occupancy sensors

OccuSwitch classic wall switch and low voltage occupancy sensors. The Philips OccuSwitch classic line of devices is a complete portfolio of wired occupancy sensors. The wide selection includes solutions for nearly every application. To maximize energy savings and improve the working environment, Philips offers the classic product to meet the basic needs for lighting control and energy conservation.

Sensor technology

- PIR—Passive infrared
- Multi-Technology (PIR and Ultra-Sonic)

Sensor types

- Wall Switch Replacement for small areas
- Low Voltage Ceiling and Wall Sensors with remote Power Pack for large areas
- Self-Powered sensors for High-Bay spaces

Applications

- Educational facilities
- Commercial buildings
- Industrial operations
- Health care
- Retail



LRS2225/00



LRM2255/00



LRM2265/00



LCA2285/00

Order number	Description	Voltage
Wall switch devices		
LRS2210/00	Wall Switch Sensor - PIR, Single Switch, White	120/277 VAC
LRS2210/01	Wall Switch Sensor - PIR, Single Switch, Ivory	120/277 VAC
LRS2215/00	Wall Switch Sensor - PIR, Dual Switch, White	120/277 VAC
LRS2215/01	Wall Switch Sensor - PIR, Dual Switch, Ivory	120/277 VAC
LRS2220/00	Wall Switch Sensor - Multi-tech, Single Switch, White	120/277 VAC
LRS2220/01	Wall Switch Sensor - Multi-tech, Single Switch, Ivory	120/277 VAC
LRS2225/00	Wall Switch Sensor - Multi-tech, Dual Switch, White	120/277 VAC
LRS2225/01	Wall Switch Sensor - Multi-tech, Dual Switch, Ivory	120/277 VAC
LRS2230/00	Wall Switch Sensor - PIR Single Night Light, White	120/277 VAC
LRS2230/01	Wall Switch Sensor - PIR Single Night Light, Ivory	120/277 VAC
Low voltage sensors		
LRM2250/00	PIR - Ceiling Mount, Low voltage, 1500 sq.ft.	24 VDC
LRM2255/00	Multi-tech - Ceiling Mount, Low voltage, 2000 sq.ft.	24 VDC
LRM2260/00	Multi-tech - Ceiling Mount, Low voltage, 500 sq.ft.	24 VDC
LRM2265/00	Multi-tech - Wall Mount, Low voltage, 1200 sq.ft.	24 VDC
LRM2270/00	PIR - Wall Mount, Low Voltage, 2500 sq.ft.	24 VDC
LRM2275/00	PIR - Wall Mount, Low Voltage, High-Bay 55'x7'	24 VDC
LRM2280/00	PIR - Wall Mount, Low Voltage, Long Range 100'x14'	24 VDC
Power relay packs		
LCA2285/00	PowerPack - 120-230-277 volt	120 - 277 VAC
LCA2287/00	PowerPack - 120-230-277 volt, with HVAC Dry Contacts	120 - 277 VAC
LCA2290/00	PowerPack - 347 volt	347 VAC
LCA2292/00	PowerPack - 120-230-277 volt, Manual-ON, Auto-OFF, Title 24	120 - 277 VAC

OccuSwitch

Classic wired occupancy sensors

OccuSwitch classic line voltage sensors install in hard ceilings and other locations where line voltage is available.

Order number	Description	Voltage
Line voltage sensors		
LRS2235/00	Line voltage - PIR High-Bay	120-347 VAC
LRS2237/00	Line voltage - PIR High-Bay	480 VAC
LRM2240/00	Line voltage - Ceiling Mount, 530 sq.ft.	120 VAC
LRM2245/00	Line voltage - Ceiling Mount, 530 sq.ft.	277 VAC
High-bay, line voltage occupancy sensors		
LRM2330/00	Fixture Mount, High-Bay, 360° PIR, Self Contained	120-277 VAC
LRM2335/00	Fixture Mount, High-Bay, 360° PIR, Self Contained	347 VAC
LRM2340/00	Fixture Mount, High-Bay, 360° PIR, Self Contained, Photo Cell, Low Temp	120-277 VAC
LRM2345/00	Fixture Mount, High-Bay, 360° PIR, Self Contained, Photo Cell, Low Temp	347 VAC
LRM2348/00	Fixture Mount, High-Bay, 360° PIR, Self Contained	480 VAC
LRM2350/00	Fixture Mount, High-Bay, Aisle Focus PIR, Self Contained	120-277 VAC
LRM2355/00	Fixture Mount, High-Bay, Aisle Focus PIR, Self Contained	347 VAC
LRM2360/00	Fixture Mount, High-Bay, Aisle Focus PIR, Self Contained, Photo Cell, Low Temp	120-277 VAC
LRM2365/00	Fixture Mount, High-Bay, Aisle Focus PIR, Self Contained, Photo Cell, Low Temp	347 VAC
LRM2370/00	Fixture Mount, High-Bay, Aisle Focus PIR, Self Contained	480 VAC
LRM2375/00	Sensor mounting bracket	
Dimmer power extenders		
LCU2420/00	Incandescent Dimmer Power Extender	120 VAC
LCU2425/00	Mark 10 Dimmer Power Extender	120 VAC
LCU2430/00	Mark 10 Dimmer Power Extender	277 VAC
LCU2435/00	Mark 7 Dimmer Converter	120/277 VAC
Time control relay panels		
LRC2410/00	8 Relay Stand-alone time clock panel with BACNET	120/277 volt
LRC2415/00	Conversion kit for 2 pole 208 or 277 volt	120/277 volt



LRS2240/00

OccuSwitch classic high-bay sensors include fixture mount wide area and aisle coverage in single pole and two pole configurations up to 480 volt.



LRS2235/00

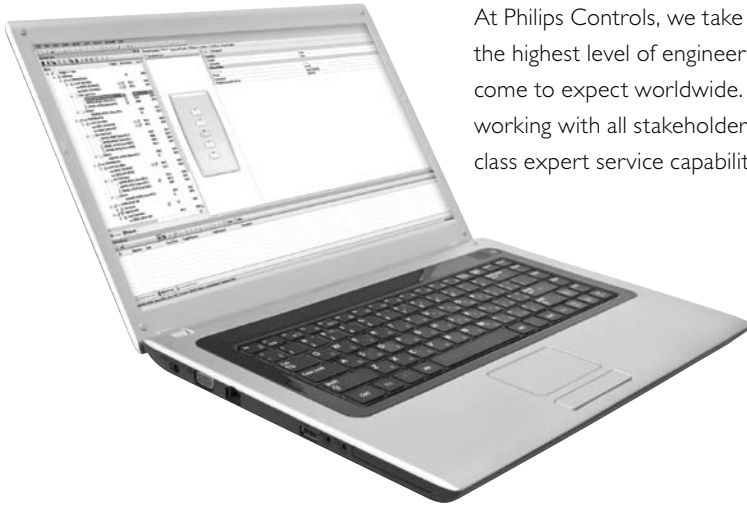
Philips dimmer power extenders convert standard low wattage dimmers to high power controls for large dimming loads.



LCU2420/00

Philips time control relay panels include 8—20 amp single pole relays with 8 low voltage override switch inputs plus analog photo cell input and full function astronomic clock/calendar. Low voltage relays are easy to group and program for time controls and manual override. Ideal for all time based applications including common areas, parking and site lighting.

Services Overview



At Philips Controls, we take pride in being selected by our clients for our ability to provide the highest level of engineering, sales and warranty support that Philips customers have come to expect worldwide. Rest assured, with Philips Controls, we are committed to working with all stakeholders on the design team to manage any project by offering best-in-class expert service capabilities.

Global reach

Our world-wide network of seasoned local sales professionals is vital to ensuring customer success by providing responsive attention; they have direct responsibility for client relationships and after-sales support. The local sales organizations are actively supported by our Control Application Groups (CAGs) and our Global Centers of Excellence.

The CAGs operate across all regions and include offices in Europe, the Middle East, South Asia, North Asia, Oceania, and North America. They provide specification support for international projects adhering to country specific regulations while responding locally for design and documentation.

Our Global Centers of Excellence drive ongoing innovation and will manage projects of very high complexity and customization.

Commissioning

Whichever lighting control solution is ultimately chosen for each project we design, our task does not end with the specification, or even installation, of the lighting controls hardware. At Philips Controls, we ensure that our systems are properly commissioned and operational before occupancy.

Our worldwide network of factory-trained and highly qualified service personnel carry out the systematic process of ensuring that all building systems perform interactively according to the control design intent and the owner's operational needs.

We ensure that the controls we have specified function optimally in order to provide our clients with the best possible value, ensuring Sense and Simplicity to all end users. No job is complete without explaining and demonstrating the system functions to the owner for signoff completion to specification.

Systems maintenance

When a facility has been occupied for duration there will invariably be changes required to accommodate occupant comfort or changes in building use.

Philips Controls technical support is available at (800) 526-2731 to answer any questions on product or installation that may arise. In the event changes are required, from simple modifications to current settings, to provision of additional equipment to further enhance the system, Philips technical support can bring in the design or installation resources necessary to service the request efficiently. Additionally, we offer remote diagnostic and monitoring capabilities to assess and trouble shoot as needed without disrupting the building usage and occupancy.

We can also implement a specific program of periodic assessments on the control system within the initial years of occupancy to ensure all targeted outcomes in relation to energy management and occupant comfort have been met. Additional services offered, take into account adjustments to the overall control strategy to accommodate changes in tenancy usage and office churn, fine tuning of parameters to assist in building maintenance and continued education of end users and facility maintenance staff.

Training

To build awareness in the marketplace with increased numbers of lighting controls experts, we regularly conduct training seminars in a number of locations worldwide. Our comprehensive program is offered as a range of separate modules, allowing all involved stakeholders to acquire the specialist skills most relevant to their field.

With significant investment in a professional and dedicated training organization, our channel partners undergo extensive factory training and are familiar with all aspects of system configuration and operation.

Building maintenance staffs are properly trained by Philips Controls to ensure familiarity with all elements of the control system – from simple adjustments to light levels to scheduling energy management and maintenance reports. Similarly, end users of the facility are trained on the operation of the control system, ensuring comfort with the user interfaces including personal controls.

Services Overview



System design

As part of our full-service offering, Philips Controls can provide design assistance and support tools, including a comprehensive library of CAD objects for use in system drawings. Our lighting controls design experts can work hand-in-hand with specifying engineers and consultants to evaluate and apply the most suitable control strategies by application to meet the design intent of the facility.

Our team can help you comply with energy code compliance requirements (ASHRAE/IES, IECC, CEC Title 24 or state/local derivatives) and Green building practices (for e.g. LEED) by designing the most optimal lighting control solutions for the project.

Project support

Prior to project start-up, our experienced team can work with all parties involved with the project to setup initial training, building walk-throughs, audits and payback analysis with supporting product demonstrations or mock-ups to establish the confidence you need to underpin client performance expectations upfront.

We understand that time is money and that mistakes on-site can be costly. That's why we offer complete project support to coordinate material and installation activities, manage submittals of project documentation, and arrange start-up and commissioning to meet project timeline and budget.

Our teams can coordinate pre-commissioning site visits, to ensure system wiring and equipment installation is complete and correct, avoiding expensive reworks and delays. We will also liaise with third-party vendors, in projects where integration between systems is required, to guarantee that things flow smoothly.

Philips Controls can provide design assistance and support tools

By partnering with the industry leader in lighting systems and controls, Philips customers naturally demand a comprehensive approach to the delivery of their projects; they want a better business result using our solutions. As Philips Controls, we are ideally equipped to respond to the challenges of a dynamic market by organizing around customer needs first and foremost.

The most important aspect of our commitment to delivering a high level of service is single point of accountability. When projects bring together complex integration challenges, high levels of customization, and ambitious site commissioning timelines, a single line of accountability is an indispensable building block of our success.

To have a single company like Philips with highly developed project management skills, world leading technology, and a commitment to innovation, is a major market differentiator and highlights our capacity to bring together the elements of our value proposition; to deliver outstanding results for our customers.

Our projects succeed because the key elements of open architecture, scalability, flexibility, systems integration and accountability, come together to deliver true excellence.

Our breadth of expertise in lighting and lighting controls applications ensure that we de-mystify the complexity from your project life-cycle no matter what stage it's at with skilled support from the initial stages of system design, to the occupancy of the facility as well as subsequent maintenance, expansion or renovation of the building based upon tenancy needs.