### PHILIPS

AT THE

Indoor Controls

# Absolute Certainty

Take confident control of your indoor lighting projects with Philips Connected Lighting Solutions

# All the right solutions for all the right reasons

In your business, efficiency and professional reputation are paramount. So when it comes to selecting the right connected lighting solution for a lighting project, you need a system that is easy to specify, quick to install and leaves your customer delighted at project conclusion and beyond.

Philips Connected Lighting Solutions can help you achieve these goals.

Connected lighting solutions



Trusted partner

# **Trusted products**, knowledge and service

With a complete selection of drivers, luminaires, lamps, controls and software from one trusted manufacturer, you can be assured that your Philips Connected Lighting Solution operates seamlessly for efficient, reliable performance and can help reduce energy costs for your customer.

At the same time, we make it easy for you to build a custom, scalable connected lighting solution that complies with the most recent building code requirements so that you don't have to spend time researching complex lighting requirements or worrying about problems down the road.

And with full-scale service offerings from system design assistance, project management and commissioning through financing and after-sale system maintenance, we can help you to confidently create a truly unique and robust lighting solution. What are the benefits of an **indoor lighting** control system?

System benefits

#### Provide a sense of security

✓ Well-lit areas provide employees and customers a sense of security and comfort. Illuminate egress pathways during emergency conditions, turn on site lighting to provide passage to parked vehicles, illuminate steps and obstructions, and integrate with security systems to coordinate facility lighting response during security events.

#### 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.
- Lighting systems can 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.

#### Create a positive image

Lighting can set the right mood and create a unique experience which helps distinguish a facility. Whether highlighting architectural features, creating an inviting area, ensuring well-illuminated environments for employees, or offering flexible lighting for occupant comfort, lighting offers many opportunities to establish a unique environment.

#### 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\*.
- An increased focus on green buildings has accelerated the drive to achieve best practice environmental and sustainable standards in new and remodel construction projects.

<sup>\*</sup> DiLouie, Craig, "Lighting and LEED", Lighting Control Association, February 2009, www.aboutlightingcontrols.org/education/papers/greendesign.shtml

# Which solution do I need for my space

#### **Standalone** Control Solutions

- $\cdot \ {\rm Contractor} \ {\rm installed}$
- Basic compliant lighting control
- $\cdot$  ON/OFF and optional dimming
- Single and dual zone operation
- Intuitive programming and operation

#### Network Control Solutions

- Everything Standalone +
- Provides information and analytics, allowing for system monitoring
- Unlimited scale (geographic and technological)
- Multi-Technological (wired, wireless, and alternative power like Power Over Ethernet)
- High customization to users functional requirements
- High level integration to building systems
- Integration to other devices and building parts for ON/OFF and dimming
- Ability to meet most energy code requirements including demand response initiatives

Standalone and Network Control Solutions

When deciding upon the most appropriate **control solution** it is essential to be aware of the **requirements** of the project and the **implications** of the application in the **installation**. **Our portfolio** of Philips control systems provides a **wide range of options** in regards to user **supervision of the lighting** with three different grades of supervision — both for conventional systems and for **LED lighting**.

# How to choose the right indoor lighting control system

When selecting the most appropriate indoor lighting control solution, it is necessary to consider not only the applicable energy codes, but also the intent behind the lighting design, the intended use of the space, the utilization of any existing infrastructure, and the size of any installation.

However, strongly influencing factors frequently include economic investment and the type of control solution.





For those cases in which the sole requirement is to comply with existing regulation, **Standalone** control systems are recommended, incorporating occupancy sensing, daylight holdback and full range daylighting, timer switches and astronomic timeclock switches. These systems make it possible to achieve considerable savings with a minimal investment.

**Network** control systems provide maximum flexibility while offering flexible options and simple integration capabilities. This means that each light point can be controlled individually (reducing the costs of enlargement or future modifications of the lighting), but that control and monitoring of the complete system is also available. In addition, network solutions provide greater comfort given that they give the user greater control and optimize lighting, making it suitable for each task to create a secure and well-lighted environment.

Multi site solutions are available for retail and hospitality applications using our comprehensive offering of network controlled lighting solutions.



# Solutions

Standalone Solutions

### Autonomous. Affordable. Flexible.

Are you looking to save energy with a simple-to-install lighting control solution? If so, our standalone control solutions may meet your needs.

- Simple, room based control solutions
- Individual luminaire dimming, occupancy sensing and management
- Contractor installed systems for energy savings
- $\cdot$  Single and dual zone control
- Cost effective solution for energy retrofits

#### **Standalone** Solutions



**OccuSwitch** 

Controls Classic







ActiLume Controls

11



# **OccuSwitch** Controls Classic

The OccuSwitch Classic family offers a full line of indoor occupancy control solutions. These simple to use controls help maximize energy savings by turning lights on or off depending on whether an area is occupied or unoccupied. Using state of the art Passive Infrared (PIR) or Multi-tech (PIR and ultrasonic) sensing technology, these ceiling, wall, and wallbox mounted sensors make it easy for you to save energy.

Standalone Solutions

OccuSwitch Controls Classic



#### **Features**

- Reduces energy consumption by turning the lights off when a space is unoccupied
- Optional daylight holdback further enhances energy savings by leaving lights off if there is enough daylight
- Multiple models with different occupancy sensing technologies and mounting options make OccuSwitch Classic products a flexible solution for a variety of areas
- Self-adaptive technology means that time delay and sensitivity settings are continually adjusted to occupancy patterns
- $\cdot$  Low profile designs blend easily into surroundings
- Compliant with applicable California Title 20 and Title 24-2013 requirements
- Compliant with ASHRAE 90.1-2010 and IECC 2009
   occupancy sensor requirement

#### **Recommended Applications**

- Restrooms
- Storage Areas
- Corridors
- Warehouses

#### Wall Switch Sensors

12NC number	Catalog number	Description	Voltage
912400474178	LRS2210/00	Occupancy Sensor, Wall Switch, PIR, White	120
912400474179	LRS2210/01	Occupancy Sensor, Wall Switch, PIR, Ivory	120
912400528923	LRS22110/00	Vacancy Sensor, Wall Switch, PIR, Title 24, Manual On	120
912400528924	LRS22110R/00	3-Way Remote Switch for LRS22110 Vacancy Sensor	120
912400474180	LRS2215/00	Occupancy Sensor, Wall Switch, PIR, Dual Switch, White	120/277
912400474181	LRS2215/01	Occupancy Sensor, Wall Switch, PIR, Dual Switch, Ivory	120/277
912400474182	LRS2220/00	Occupancy Sensor, Wall Switch, PIR/Ultrasonic, White	120/277
912400474183	LRS2220/01	Occupancy Sensor, Wall Switch, PIR/Ultrasonic, White	120/277
912400474184	LRS2225/00	Occupancy Sensor, Wall Switch, PIR/Ultrasonic, Dual Switch White	120/277
912400474185	LRS2225/01	Occupancy Sensor, Wall Switch, PIR/Ultrasonic, Dual Switch, Ivory	120/277
912400474186	LRS2230/00	Occupancy Sensor, Wall Switch, PIR, Nightlight, White	120/277
912400528969	LRS2230/01	Occupancy Sensor, Wall Switch, PIR, Nightlight, Ivory	120/277



#### Ceiling Mount Sensors, Line Voltage

12NC number	Catalog number	Description	Voltage
912400518186	LRL2380/00	On/Off Photocell Sensor, Single Zone	120/277
912400474158	LRL2385/00	On/Off Photocell Sensor, Dual Zone	120/277
912400528349	LRL2390/00	On/Off Dimming Photocell Sensor	120/277
912400474164	LRM2240/00	Occupancy Sensor, Line Voltage, PIR, 530 Sq. Ft	120
912400474165	LRM2245/00	Occupancy Sensor, Line Voltage, PIR, 530 Sq. Ft	277
912400518194	LRM2370/00	Occupancy Sensor, Line Voltage, PIR	120/277
912400518195	LRM2375/00	Occupancy Sensor, Line Voltage, PIR, On/Off Photocell	120/277
912400518196	LRM2376/00	Occupancy Sensor, Line Voltage, PIR, Daylighting Photocell	120/277
912400518197	LRM2377/00	Occupancy Sensor, Line Voltage, PIR, Dual Zone	120/277



Standalone Solutions

OccuSwitch Controls Classic

#### Ceiling/Wall Mounted Sensors, Low Voltage

12NC number	Catalog number	Description
912400474166	LRM2250/00	Occupancy Sensor, Ceiling Mount, PIR, 1500 Sq. Ft.
912400474167	LRM2255/00	Occupancy Sensor, Ceiling Mount, PIR/Ultrasonic, 2000 Sq. Ft.
912400474168	LRM2260/00	Occupancy Sensor, Ceiling Mount, PIR/Ultrasonic, 500 Sq. Ft., 180°
912400474169	LRM2265/00	Occupancy Sensor, Wall Mount, PIR/Ultrasonic, 1200 Sq. Ft.
912400474170	LRM2270/00	Occupancy Sensor, Wall Mount, PIR, 2500 Sq. Ft.
912400474171	LRM2275/00	Occupancy Sensor, Wall Mount High-Bay, PIR, 55' x 7'
912400474172	LRM2280/00	Occupancy Sensor, Wall Mount High-Bay, PIR, 100' x 14'



#### Power Relay Packs

12NC number	Catalog number	Description	Voltage
912400473978	LCA2285/00	OccuSwitch PowerPack	120/277
912400473979	LCA2287/00	OccuSwitch PowerPack w/ HVAC Relay	120/277
912400528929	LCA2290/00	OccuSwitch PowerPack	347
912400473980	LCA2292/00	OccuSwitch PowerPack, Title 24, Manual On	120/277



#### Remote Location Switch

12NC number	Catalog number	Description
912400528926	LRS24120/00	Double-Throw Momentary Contact Switch, 24VDC, White
912400528927	LRS24120/01	Double-Throw Momentary Contact Switch, 24VDC, Ivory



#### **Timer Switches**

12NC number	Catalog number	Description	Voltage
912400528921	LTA24450C	Timer Switch 10-20-30-60 minute	120
912400528922	LTA24550C	Astronomical Timeclock Switch	120
912400528925	LRS22113/00	3-Way Remote Switch for OSC Timer Switches	120





# Sunrise Dimmers

Philips designed the Sunrise Preset Electronic Wall Dimmers for most commercial and residential applications. Sunrise Preset Slide Dimmers and power extenders provide reliable dimming control for LED, compact fluorescent, and other commonly used lamps and fixture types.

Standalone Solutions

#### Sunrise Dimmers

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#### **Features**

- Slide dimming: Each model uses an intuitive, captive slider knob
- Versatile gang configuration: Each model fits in a single-gang box and can be used in multi-gang configurations
- $\cdot$  UL/CSA listed

#### **Recommended Applications**

- $\cdot$  Executive Offices
- Boardrooms & Conference Rooms
- Lobbies
- Dining Rooms & Restaurants
- Retail Stores
- Residential

#### Wall Dimmers

Catalog number	Description	Voltage
SR1000FPC120	Dimmer, Incandescent, 1000W - White, Ivory, Light Almond	120
SR1000MK10120	Dimmer, Mark 10, 1000VA - White, Ivory, Light Almond	120
SR1000VA120	Dimmer, Inductive, 1000VA - White, Ivory, Light Almond	120
SR1200MK10277	Dimmer, Mark 10, 1200VA - White, Ivory, Light Almond	277
SR1200ZTUNV	Dimmer, 0-10VDC, 1200VA - White, Ivory, Light Almond	120/277
SR150LED120	Dimmer, LED/CFL/Incandescent, 150W LED/CFL, 600W Incandescent - White, Ivory, Light Almond	120
SR400RPC120	Dimmer, Trailing Edge, 400VA - White, Ivory, Light Almond	120
SR600MK10120	Dimmer, Mark 10, 600VA - White, Ivory, Light Almond	120
SR600MK10277	Dimmer, Mark 10, 600VA - White, Ivory, Light Almond	277
LRS2225/01	Occupancy Sensor, Wall Switch, PIR/Ultrasonic, Dual Switch, Ivory	120/277
LRS2230/00	Occupancy Sensor, Wall Switch, PIR, Nightlight, White	120/277
LRS2230/01	Occupancy Sensor, Wall Switch, PIR, Nightlight, Ivory	120/277
	SR1000FPC120         SR1000MK10120         SR1000VA120         SR1200MK10277         SR1200ZTUNV         SR400RPC120         SR600MK10120         SR600MK10277         LRS2225/01         LRS2230/00	SR1000FPC120Dimmer, Incandescent, 1000W - White, Ivory, Light AlmondSR1000MK10120Dimmer, Mark 10, 1000VA - White, Ivory, Light AlmondSR1000VA120Dimmer, Mark 10, 1000VA - White, Ivory, Light AlmondSR1200MK10277Dimmer, Mark 10, 1200VA - White, Ivory, Light AlmondSR1200ZTUNVDimmer, O-10VDC, 1200VA - White, Ivory, Light AlmondSR150LED120Dimmer, LED/CFL/Incandescent, 150W LED/CFL, 600W Incandescent - White, Ivory, Light AlmondSR400RPC120Dimmer, Trailing Edge, 400VA - White, Ivory, Light AlmondSR600MK10120Dimmer, Mark 10, 600VA - White, Ivory, Light AlmondSR600MK10277Dimmer, Mark 10, 600VA - White, Ivory, Light AlmondSR600MK10277Dimmer, Mark 10, 600VA - White, Ivory, Light AlmondSR600MK10277Dimmer, Mark 10, 600VA - White, Ivory, Light AlmondLRS2225/01Occupancy Sensor, Wall Switch, PIR/Ultrasonic, Dual Switch, IvoryLRS2230/00Occupancy Sensor, Wall Switch, PIR, Nightlight, White



#### Fan Control

12NC number	Catalog number	Description	Voltage
912400528261	SR1AFC120	Fan Control, 1.5A - White, Ivory, Light Almond	120

#### Remote Location Switches

12NC number	Catalog number	Description	Voltage
912400528881	SR3I	3-Way Remote for Sunrise Dimmers, Ivory	120/277
912400528928	SR3LA	3-Way Remote for Sunrise Dimmers, Light Almond	120/277
912400527787	SR3W	3-Way Remote for Sunrise Dimmers, White	120/277





Standalone Solutions

Sunrise Dimmers

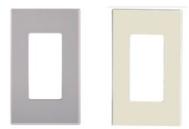
#### **Dimmer Power Extenders**

12NC number	Catalog number	Description	Voltage
912400473981	LCU2420/00	Power Extender, 1920VA, Incandescent	120
912400473982	LCU2425/00	Power Extender, 1920VA, Mark 10	120
912400473983	LCU2430/00	Power Extender, 3000VA, Mark 10	277
912400473984	LCU2435/00	Power Extender, Universal Voltage, 0-10V	120/277



#### Faceplates

12NC number	Catalog number	Description
912400528167	80301-SI	1-Gang Faceplate, Ivory
912400528168	80301-ST	1-Gang Faceplate, Light Almond
912400528166	80301-SW	1-Gang Faceplate, White
912400528172	80309-SI	2-Gang Faceplate, Ivory
912400528173	80309-ST	2-Gang Faceplate, Light Almond
912400528171	80309-SW	2-Gang Faceplate, White
912400528177	80311-SI	3-Gang Faceplate, Ivory
912400528178	80311-ST	3-Gang Faceplate, Light Almond
912400528176	80311-SW	3-Gang Faceplate, White
912400528181	80312-SI	4-Gang Faceplate, Ivory
912400528182	80312-ST	4-Gang Faceplate, Light Almond
912400528180	80312-SW	4-Gang Faceplate, White





# ActiLume Controls

ActiLume Lighting Controls are the simple way for office and light industrial facilities to realize the energy-saving benefits of occupancy sensors while at the same time minimizing maintenance and setup costs. ActiLume Classic sensors easily attach to existing fixtures to turn individual fixtures on or off depending on whether a space is occupied. Actilume controls are typically factory-installed solutions, but many can also be easily installed in the field.

Standalone Solutions

#### ActiLume Controls



#### **Features**

- Reduces energy costs by turning lights off when the space is not in use, or leaving them off if there is enough daylight
- Passive Infrared (PIR) technology maximizes energy savings by helping to minimize false triggers from minor background environmental conditions or vibrations
- $\boldsymbol{\cdot}$  Easily attaches to existing luminaries or electrical junction box
- Push button adjustments means no professional training required for commissioning and light level adjustment
- Optional mounting bracket allows sensor to be mounted up to 4.3 inches lower to avoid obstructions

#### **Recommended Applications**

#### **Office Solutions**

- Single Office
- $\cdot$  Open Plan Office
- $\cdot$  Conference Rooms

#### **Industrial Solutions**

- Factories
- Warehouses
- Cold-Storage
- High-bay

#### Office Solutions ——

#### Internal Fixture Mounted Sensors & Controllers

12NC number	Catalog number	Description
913700339603	LLC1655/00*	ActiLume 1-10V SwitchBox
913700339503	LRI1655/00	ActiLume 1-10V Sensor 100 cm (PIR occupancy and Daylight)
913700354903	LRI1655/05	ActiLume 1-10V Sensor 100 cm White (PIR occupancy and Daylight)
913700182182	LRL1220TL5	LuxSense ambient light sensor 0-10V W/ T5 LAMP CLIP
913700182282	LRL1220TLD	LuxSense ambient light sensor 0-10V W/ T8 LAMP CLIP
913700346403	LRL1222/10	MicroLuxSense ambient light sensor 0-10V, White
913700354803	LRL1222/15	MicroLuxSense ambient light sensor 0-10V, Light Gray



\* Cannot be used in conjunction with standalone 0-10VDC dimmers

#### External Photo and/or Occupancy Sensors

]	12NC number	Catalog number	Description
	912400513730	LRI1655CMP*	0-10V Photocell w/Occupancy Sensor & Ceiling Mount Plate
	912400474156	LRL1222CMP*	MicroLuxSense ambient light sensor 0-10V, Ceiling Mount Plate

\* Cannot be used in conjunction with standalone 0-10VDC dimmers

#### Internal Fixture Mounted Accessories

12NC number	Catalog number	Description
913700338303	LCA8001/00	RING FOR COVER SET OF 100PCE
913700340803	LCA8002/00	ActiLume Clip TL5 set 50pce*
913700340903	LCA8003/00	ActiLume Clip TL-D set 50pce*
913700348803	LCA8005/00	ActiLume Mounting Clip 50pce - Light Gray
913700355103	LCA8005/05	ActiLume Mounting Clip 50W - White

\* For use with LRL1222/XX and LRI1655/XX

1



Standalone Solutions

ActiLume Controls

#### Industrial Solutions -

#### External Fixture Mounted Sensors

12NC number	Catalog number	Description	Voltage
912400518189	LRM2320/00	Occupancy Sensor, External Fixture Mounted, 360°, PIR, Low-Bay	120/277
912400518190	LRM2325/00	Occupancy Sensor, External Fixture Mounted, 360°, PIR, Low-Bay	347
912400474173	LRM2330/00	Occupancy Sensor, External Fixture Mounted, 360°, PIR, High-Bay	120/277
913701231401	LRM2335/00	Occupancy Sensor, External Fixture Mounted, 360°, PIR, High-Bay	347
912400474174	LRM2340/00	Occupancy Sensor, External Fixture Mounted, 360°, PIR, High-Bay, On/Off Photocell, Low Temperature (-40°C/F)	120/277
912400518191	LRM2342/00	Occupancy Sensor, External Fixture Mounted, 360°, PIR, High-Bay, Dimming Photocell, Low Temperature (-40°C/F)	120/277
913701231601	LRM2345/00	Occupancy Sensor, External Fixture Mounted, 360°, PIR, High-Bay, On/Off Photocell, Low Temperature (-40°C/F)	347
912400474175	LRM2348/00	Occupancy Sensor, External Fixture Mounted, 360°, PIR	480
912400474176	LRM2350/00	Occupancy Sensor, External Fixture Mounted, PIR, High-Bay, Aisle Focus	120/277
912400518192	LRM2360/00	Occupancy Sensor, External Fixture Mounted, PIR, High-Bay, Aisle Focus, On/Off Photocell	120/277
912400518193	LRM2362/00	Occupancy Sensor, External Fixture Mounted, PIR, High-Bay, Aisle Focus, Dimming Photocell, Low Temperature (-40°C/F)	120/277
913701232101	LRM2365/00	Occupancy Sensor, External Fixture Mounted, PIR, High-Bay, Aisle Focus, On/Off Photocell, Low Temperature (-40°C/F)	347
913701231901	LRM2355/00	Occupancy Sensor, External Fixture Mounted, PIR, High-Bay, Aisle Focus	347
913701232201	LRM2368/00	Occupancy Sensor, External Fixture Mounted, PIR, High-Bay, Aisle Focus	480
912400474177	LRM2369/00	Sensor Mounting Bracket	N/A
912400474187	LRS2235/00	Occupancy Sensor, Fixture Mount, PIR, High-Bay	120/277/347
912400528970	LRS2237/00	Occupancy Sensor, Fixture Mount, PIR, High-Bay	480



#### Internal Fixture Mounted Sensors

12NC number	Catalog number	Description	Voltage
913701261401	LRM2311/00	Occupancy Sensor, Internal Fixture Mounted, 360°, PIR	120/277
913701261501	LRM2316/00	Occupancy Sensor, Internal Fixture Mounted, 360°, PIR	347





# Network: Simple Connected Solutions

Network: Simple Connected Solutions

### Intermediate. Informative. Flexible.

Do you require widespread or multi-site lighting management with detailed asset management? Are you seeking a lighting solution that can grow along with your needs? If so, our network remote managed connected lighting systems may suit your needs.

- Environment control of limitless size
- Integration to other systems
- Operation up to 32 circuits
- $\cdot$  Centralized operation and management are desired

#### Simple Connected Solutions



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OccuSwitch Wireless Controls

LyteSwitch Two Relay Solutions

# OccuSwitch Wireless Controls

The Philips OccuSwitch Wireless Control System contains an advanced, energy-saving occupancy sensor designed with an integrated photocell that automatically turns lights off when the room is unoccupied or dims them when enough daylight is present. This unique indoor link-and-go system is perfect for retrofits and new installations in commercial applications.

#### Features

- Wireless sensor controls make it easy-to-install in retrofit and new construction applications
- Sleek low profile design (only 3.3 inches in diameter and .98 inches in depth) provides a stylish solution that easily blends into existing and new office designs
- Advanced occupancy sensing technology helps to enhance performance while optimizing energy savings
- Compliant with applicable California Title 24-2013 energy efficiency device code requirements
- $\cdot$  Up to 16 devices can be linked together to control one space
- Meets energy codes device requirements
- Compliant with ANSI/ASHRAE/IESNA Standard 90.1-2010 & 189.1-2009, 2009 Section 505 & 2012 Section C405 IECC (International Energy Conservation Code)

#### **Recommended Applications**

・Offices	<ul> <li>Copy Rooms</li> </ul>
Conference Rooms	• Lunch Rooms

- Restrooms
   Classrooms
- Storage and Break Areas
   Lobby Areas



#### Internal Fixture Mounted Sensors

12NC number	Catalog number	Description	Voltage
913700343903	LRA1721/00	OccuSwitch Wireless Wall Switch, White	120/277
913700344003	LRA1721/01	OccuSwitch Wireless Wall Switch, Ivory	120/277



12NC number	Catalog number	Description
913700344103	LRM1743/00	OccuSwitch Wireless Ceiling Sensor, PIR
913700336803	LRM1760/00	OccuSwitch Wireless Ceiling Sensor, PIR, Daylighting Photocell
913700352103	LRM1766/10	OccuSwitch Wireless Corridor Sensor, PIR
913700351703	LRM1771/10	OccuSwitch Wireless Corner Sensor, PIR
913700351903	LRM1776/10	OccuSwitch Wireless Wall Sensor, PIR







# LyteSwitch Two Relay Solutions

The Philips LyteSwitch Two Relay Solution is a family of high performance programmable relay lighting controllers designed for easy integration with any lighting system. A scalable design allows up to 48 relays to be chained together via CAT5/6/7 cable.

Network: Simple Connected Solutions

LyteSwitch Two Relay Solutions



#### **Features**

- 365-day integrated programmable time clock
- Simple onscreen programming
- Easily chain a master relay cabinet with inexpensive expansion relay enclosures into 'mini-spurs' of relays with CAT5/6/7 to increase the count of relays (up to 48 per control source)
- Available in 4, 8, 16, and 32 relay panel sizes
- · Analog Option card allows conventional switches to be integrated
- Small footprint allows flush or surface mounting of all cabinet sizes (Trim Ring optionally available)
- Button stations available to tie directly into the minispur for simple control
- DMX512 master relay cabinet available for integration with any DMX512 controller or with DyNet devices via DDNG485-NA gateway (see page 44)
- Design allows a contractor or end user to program the system, avoid expensive third party programming and system commissioning
- $\cdot$  Allows tie-in of Standalone OccuSwitch Low Voltage Occupancy Sensors

#### **Recommended Applications**

General Purpose Areas

Open Office Areas

- Classrooms
- Retail

#### Master Enclosure\*

12NC number	Catalog number	Description	Voltage
912400518681	DC-DRE-I-4M-001	LS2 4 Circuit Master Enclosure	120/277
913701263401	DC-DRE-I-4M-001-347	LS2 4 Circuit Master Enclosure	347
912400519017	DC-DRE-I-4MD-001	LS2 4 Circuit Master Enclosure with DMX	120/277
913701263501	DC-DRE-I-4MD-001-347	LS2 4 Circuit Master Enclosure with DMX	347
912400518683	DC-DRE-I-8M-001	LS2 8 Circuit Master Enclosure	120/277
913701263701	DC-DRE-I-8M-001-347	LS2 8 Circuit Master Enclosure	347
912400519018	DC-DRE-I-8MD-001	LS2 8 Circuit Master Enclosure with DMX	120/277
913701263801	DC-DRE-I-8MD-001-347	LS2 8 Circuit Master Enclosure with DMX	347
912400519015	DC-DRE-I-16M-001	LS2 16 Circuit Master Enclosure	120/277
913701262701	DC-DRE-I-16M-001-347	LS2 16 Circuit Master Enclosure	347
912400519188	DC-DRE-I-16MD-001	LS2 16 Circuit Master Enclosure with DMX	120/277
913701262801	DC-DRE-I-16MD-001-347	LS2 16 Circuit Master Enclosure with DMX	347
913701263001	DC-DRE-I-32M-001	LS2 32 Circuit Master Enclosure	120/277
913701263101	DC-DRE-I-32M-001-347	LS2 32 Circuit Master Enclosure	347
913701263201	DC-DRE-I-32MD-001	LS2 32 Circuit Master Enclosure with DMX	120/277
913701263301	DC-DRE-I-32MD-001-347	LS2 32 Circuit Master Enclosure with DMX	347



#### Satellite Relay Enclosure\*

12NC number	Catalog number	Description	Voltage
912400518682	DC-DRE-I-4S-001	LS2 4 Circuit Satellite Relay Enclosure	120/277
913701263601	DC-DRE-I-4S-001-347	LS2 4 Circuit Satellite Relay Enclosure	347
912400518684	DC-DRE-I-8S-001	LS2 8 Circuit Satellite Relay Enclosure	120/277
913701263901	DC-DRE-I-8S-001-347	LS2 8 Circuit Satellite Relay Enclosure	347
912400519016	DC-DRE-I-16S-001	LS2 16 Circuit Satellite Relay Enclosure	120/277
913701262901	DC-DRE-I-16S-001-347	LS2 16 Circuit Satellite Relay Enclosure	347



#### Trim Rings (Recessed Mounting Only)

12NC number	Catalog number	Description
912400518412	DC-DRE-TR-004	LS2 4 Circuit Flush Trim Ring
912400518413	DC-DRE-TR-008	LS2 8 Circuit Flush Trim Ring
912400518414	DC-DRE-TR-016	LS2 16 Circuit Flush Trim Ring
912400531502	DC-DRE-TR-32-001	LS2 32 Circuit Master Enclosure, Trim Ring

\* Includes relay switches (maximum of 48 relays between master and satellite).

30 Philips Controls

Network: Simple Connected Solutions

LyteSwitch Two Relay Solutions

#### **User Interfaces**

12NC number	Catalog number	Description
912400518491	DC-DRE-SP1-001	LS2 Simple-P1 Button User Interface
912400518492	DC-DRE-SP2-001	LS2 Simple-P 2 Button User Interface
912400518493	DC-DRE-SP3-001	LS2 Simple-P 3 Button User Interface
912400518494	DC-DRE-SP4-001	LS2 Simple-P 4 Button User Interface
912400518495	DC-DRE-SP5-001	LS2 Simple-P 5 Button User Interface
912400518496	DC-DRE-SP6-001	LS2 Simple-P 6 Button User Interface
912400518685	DC-DRE-SPHK-001	LS2 Simple-P Key Held User Interface
912400518686	DC-DRE-SPMK-001	LS2 Simple-P Key Momentary User Interface



#### Sensors

12NC nu	mber	Catalog number	Description
91240052	1101	DC-DRE-OIRS-001	LS2 Occupancy Interface Remote Station*
91240052	0965	DC-DRE-PCI-001	LS2 Indoor Simple-P Photo Sensor
91240052	0966	DC-DRE-PCO-001	LS2 Outdoor Simple-P Photo Sensor
91240052	7777	DC-DRE-PCO-SVC	LS2 Outdoor Simple-P Replacement Photo Sensor Only



#### Auxiliary Relay Switches

	12NC number	Catalog number	Description
	912400519020	DC-DRE-I-NO1-001	LS21Pole Normally Open Relay
	912400519021	DC-DRE-I-NO2-001	LS2 2 Pole Normally Open Relay

#### Options

12NC number	Catalog number	Description
912400518489	DC-DRE-AIA-001	LS2 Analog Input Option Card
912400529648	DC-DRE-BCIP-001	BACnet IP Module (ethernet IP connection)
912400531260	DC-DRE-IP-001	TCP / IP Module
912400518490	DC-DRE-PSR-001	LS2 Simple-P Power Repeater
912400534756	DC-DRE-BCMSTP-001	BACnet MSTP Module (RS485 connection)

\* Allows tie in of up to 8 OccuSwitch Classic low voltage occupancy sensors

Visit www.philips.com/luminaires to download the latest data sheets.



# 

**Network:** Building-wide Connected Solutions

Network: Building-wide Connected Solutions

## Intelligent. Integrated. Innovative.

Philips specializes in the provision of end-to-end intelligent lighting control systems, rather than just products. We know that the critical link between products like lamps, luminaires, LEDs, and a fully integrated solutions environment, is the control capability. Lighting control infrastructure underpins the fully integrated environment that is the future of building and energy management systems worldwide. When combined with the broad selection of Philips energyefficient luminaires, Philips connected lighting systems allow users to create ambiances, develop innovative and distinctive lighting scenes and transform environments.

#### Building-wide Connected Solutions









Load Controllers

Interface Components

#### Antumbra User Interfaces **DACM**

#### The most flexible user interface solution available

Antumbra user interfaces consist of large mechanical and touch sensitive buttons that can be customized with text or icons and incorporates the latest in field effect technology. The contemporary design features a number of button configurations, with each button capable of local or site-wide control functions.

#### Field effect technology

The user interface detects an approaching user and 'wakes up', initiating a wall-wash lighting effect to encourage interaction.

#### Supplied as two components

The Application Module contains buttons, rim, base and mounting plate, which can be mixed and matched to suit décor. The Communication Module contains all of the logical and network functions and is pre-programmed off-site, allowing commissioning to commence prior to finish options being finalized. A complete control station is made up of the Application Module and Communication Module each ordered separately.

#### Hidden sensory inputs

An internal light sensor measures ambient light and adjusts lightwash effect accordingly. A builtin temperature sensor automatically adjusts air conditioning when integrated into the system.

#### Multiple language and icon labeling

Button labeling language choices include English, Chinese and Arabic. A library of common icons transcends language barriers, which is particularly useful in hospitality applications.

#### Selection of rim and fascia options

Allows décor matching to suit any environment. Refer to the User Interface Brochure for further information on color options.

#### Application module dimensions AntumbraButton:

4.6" x 2.9" x 0.9" (116 mm x 75 mm x 23 mm) AntumbraDisplay: 4.6" x 3.0" x 1.4" (116 mm x 75 mm x 36 mm) AntumbraTouch:

4.6" x 3.0" x 0.9" (116 mm x 75 mm x 22 mm)

	12NC number	Catalog number	Description
	913703970707	DACM	Communication module
	913703020309	SP-200-647	Optional CAT5/CAT6 Wiring Adapter (5 pcs)

Note: Antumbra user interfaces are highly configurable. Please view data sheets online at lighting.philips.com/main/products/lighting-controls/dynalite.html for complete specifications.



PABPA AntumbraButton User Interface



ΡΑΤΡΑ AntumbraTouch User Interface



PADPA **AntumbraDisplay** User Interface

Network: Building-wide Connected Solutions

User Interfaces Controls

# Standard Series **DLP**

#### Blending aesthetics and function

Anything but standard, the DLP range is beautifully formed and highly functional. Built with the full Dynalite feature set, these simple yet elegant interfaces bring the full power of the automation system to the touch of a button.

#### Aesthetically pleasing

Provides an elegant point for integrated automation in commercial buildings and homes.

#### Available in two configurations

Single column, for up to five buttons and a dual column design for up to ten buttons, where more complex control is required.

#### Incorporates a miniature

**DyNet control network socket** Discreetly located under the snap-on cover, the network socket enables system adjustments and programming from any user interface on the network.

Smooth action buttons with LED indicators Provide tactile and visual feedback and are easily removed for engraving.

Décor	matching	capability
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Available in a range of fascia, bezel and button cap colors and finishes.

#### Dimensions:

4.6" x 2.7" x 1.4" (116 mm x 68 mm x 34 mm)

12NC number	Catalog number	Description
913703890609	DLP910	1 button
913703890709	DLP920	2 button
913703890809	DLP950	5 button
913703890909	DLP960	6 button
913703891009	DLP970	7 button
913703891109	DLP9100	10 button
913703020309	SP-200-647	Optional CAT5/CAT6 Wiring Adapter (5 pcs)

Note: Additional switch configurations and options available. See data sheets for details.



# Classic Series **DPN**

#### Contemporary styling to suit any application

The Philips DPN series user interfaces are a popular choice for commercial and residential applications, providing an integrated automation solution.

#### Available in a range of finishes

Supplied as standard in high quality brushed stainless steel, user interfaces are also available in custom powder coat colors on request. LED status indicators on each button Provides tactile and visual feedback on system operation.

12NC number	Catalog number	Description
913703096709	DPN308N	0 button with 1 DyNet network socket
913703099309	DPN914	1 button with ON/OFF toggle
913703094409	DPN941	4 button preset 1–3, OFF
913703205409	DPN963	6 button preset 1–3, UP, DOWN, OFF
913703093209	DPN981	8 button preset 1–7, OFF
913703093509	DPN982	8 button programming
913703094109	DPN982D	8 button programming with keyswitch
913703083409	DPN9103	10 button preset, 1–7, UP, DOWN, OFF
913703020309	SP-200-647	Optional CAT5/CAT6 Wiring Adapter (5 pcs)

Note: Additional switch configurations and options available. See data sheets for details.

#### Removable button caps

Allows engraving for easy identification of button function.

#### Available in 13 standard layouts

Incorporates the most commonly used control scenarios.

#### Button color choices

Supplied in silver as standard, with black bezel and black engraving, button caps are also available in charcoal gray as a standard option.

#### Custom features available

Optional devices including faders, displays, key switches, plug sockets and engraving are available for unique control solutions.

#### Dimensions

4.5" x 2.8" x 1.3" (115 mm x 72 mm x 34 mm)

# Revolution Series DR2PA

Clip-on cover system provides the ultimate design flexibility

The Revolution series of user interfaces provides a direct connection to the DyNet network. The devices can communicate directly with each other, with lighting load controllers and with other integration devices, offering a simple user interface capable of complex automation system functions.



#### Extensive designer range

Innovative clip-on cover fastening system provides the ultimate flexibility in décormatching. Standard finishes include brushed stainless steel and white or black glass. Custom options available in wood grain, processed stone, laminate or fabric.

#### A choice of button colors

To complement the cover color and finish choice, buttons available in silver, white or charcoal gray.

#### Custom engraving options

Identification of button function is made simple through custom engraving. Buttons can be labeled to identify purpose or area, providing accurate explanation of function. Backlighting assists to locate the UI and provides ease of readability, even in a darkened environment.

LED status indicators

Easily discern which mode is in operation via the LED indicator on each button.

12NC number	Catalog number	Description
	DR2PA	Revolution Series
913703020309	SP-200-647	Optional CAT5/CAT6 Wiring Adapter (5 pcs)

Note: Revolution Series is highly configurable. See data sheets for details.

#### Standard control options

Each button can be programmed to perform a range of standard control options that are individually configured to perform functions including toggle lighting on/off and ramp lighting up/down.

#### Complex functionality in a single action

A single button press can be used to effect an entire system change, providing a true automation solution.

#### Designed to meet any requirement

Available in one to 24 button configurations, the Revolution series user interfaces can be designed to perform as many or as few functions as required.

#### Dimensions

4.6" x 2.9" x 1.2" (117 mm x 75 mm x 30 mm)

Network: Building-wide Connected Solutions

User Interfaces Controls

# Color Touchscreen DTP100

#### A feature-rich color LCD touchscreen

A Philips touchscreen adds a new dimension of control to any automation application. The DTP100 supports a range of features that provide end-users with the ultimate in automation system interaction. The screen interface can be customized to control all automation elements from one location. The device features a screen size of 2.2" H x 3.7" W (56 mm x 95 mm).

# Vivid graphics and sophisticated onscreen controls

Objects such as logos, buttons, faders, floor plans and diagnostic icons can be placed on pages to perform simple or complex control functions.

#### Simple page creation

Easy-to-use pages are created using Philips touchscreen editor and JavaScript is fully supported.

#### Windows operating system and full internet connectivity

Runs Windows CE 6.0 and Internet Explorer 6. Full Windows Media Player 9 and MP3 file support.

#### Décor matching capability

The innovative clip-on fascia can be matched with Revolution series user interfaces, or customized using practically any flat architectural medium.

#### Dimensions

3.5" x 5.8" x 0.2" (88 mm x 146 mm x 6 mm)

12NC number	Catalog number	Description
913703074509	DTP100	Stainless steel fascia
913703074609	DTP100-BG	Black glass fascia
913703074709	DTP100-WG	White glass fascia
913703075309	DTP100-WALLBOX-RECESS-METAL	Recess metal wallbox
913703075909	DTP100-WALLBOX-SURFACEMOUNT	Surface mount wallbox

Note: Custom finishes available – Ask your Philips representative.

# Color Touchscreen **DTP170**

#### A feature-rich color LCD touchscreen

A Philips touchscreen adds a new dimension of control to any automation application. The DTP170 supports a range of features that provide end-users with the ultimate in automation system interaction. The screen interface can be customized to control all automation elements from one location. The device features a screen size of 3.7" H x 6.1" W (94 mm x 155 mm).



# Vivid graphics and sophisticated onscreen controls

Objects such as logos, buttons, faders, floor plans and diagnostic icons can be placed on pages to perform simple or complex control functions.

#### Simple page creation

Easy-to-use pages are created using Philips touchscreen editor and JavaScript is fully supported.

12NC number	Catalog number	Description
913703075709	DTP170	Stainless steel fascia – No wallbox
913703076109	DTP170-WB	Stainless steel fascia with wallbox
913703076409	DTP170-BG	With black borosilicate glass fascia
913703075409	DTP170-SG	With white optically clear starfire glass fascia
913703076209	DTP170-WALLBOX	Wall box

Windows operating system and full internet connectivity

Runs Windows CE 6.0 and Internet Explorer 6. Full Windows Media Player 9 and MP3 file support.

#### Décor matching capability

The innovative clip-on fascia can be matched with Revolution series user interfaces, or customized using practically any flat architectural medium.

#### Dimensions

5.9" x 9.2" x 0.3" (149 mm x 233 mm x 7 mm)

Note: Custom finishes available – Ask your Philips representative



# Multifunction Sensor DUS360CR

#### Low profile 360° recess mounted ceiling sensor

The DUS360CR is a recess mountable 360° multifunction sensor that combines motion detection (PIR), Infrared remote control reception (IR) and ambient light level detection (PE) into one device in applications such as offices, lecture theaters and homes.

#### Motion detection feature

Detects the presence or absence of motion and adjusts lights accordingly.

#### Segmented click-up bezel

Surrounds the motion sensor element and enables a portion of the sensing field to be masked. This prevents nuisance detection from adjacent doorways or corridors.

#### Ambient light level detection and daylight harvesting

In applications where it is critical to maintain precise light, the PE function reads ambient levels and adjusts artificial light accordingly.

#### Infrared receive capability

Manually adjust light levels using a hand-held remote control, via the inbuilt IR receive sensor of the DUS360CR.

#### **Daylight Harvesting mode** Delivers automatic energy savings.

Dimensions

2.8" dia. x 1.6" (72 mm dia. x 41 mm)

#### Suitable for plenum use

UL approved for installation in air-handling plenum spaces

12NC number	Catalog number	Description
913703500709	DUS360CR	Multifunction Sensor
913700359103	IRT9090/01	IR Remote Control
913703064409	DINGUS-DUS-RJ45-DUAL	Optional CAT5/CAT6 Wiring Adapter (10 pcs

# Multifunction Sensor DUS360CS-UP

Surface mount ceiling sensor with ultrasonic capability

The DUS360CS-UP is a surface mountable 360° multifunction sensor that combines ultrasonic (UP), motion detection (PIR), Infrared remote control reception (IR) and ambient light level detection (PE) into one device in applications such as offices, lecture theaters and homes.



#### Motion detection feature

Detection of motion within scanned area triggers a programmed lighting action.

#### Ambient light level detection and daylight harvesting

In applications where it is critical to maintain precise light, the PE function reads ambient levels and adjusts artificial light accordingly.

12NC number	Catalog number	Description
	DUS360CS-UP	Multifunction Sensor
913703064409	DINGUS-DUS-RJ45-DUAL	Optional CAT5/CAT6 Wiring Adapter (10 pcs)

#### Infrared receive capability

Manually adjust light levels using a hand-held remote control, via the inbuilt IR receive sensor of the DUS360CS-UP.

#### Daylight Harvesting mode

Delivers automatic energy savings.

#### Dimensions

3.5" dia. x 1.3" (90 mm dia. x 32 mm)

Network: Building-wide Connected Solutions

User Interfaces Sensors

# Universal Sensor **DUS90W**

# Combination PIR, IR and PE sensing

The DUS90W is a wall mountable 90 degree universal sensor that combines motion detection (PIR), Infrared remote control reception (IR) and ambient light level detection (PE) into one device in applications such as offices, lecture theaters and homes.

#### Motion detection feature

Detects the presence or absence of motion and adjusts lights accordingly.

# Ambient light level detection and daylight harvesting

In applications where it is critical to maintain precise light, the PE function reads ambient levels and adjusts artificial light accordingly.

#### Infrared receive capability

Manually adjust light levels using a hand-held remote control, via the inbuilt IR receive sensor of the DUS90W.

#### Multiple mounting options

This device is also available in a Long Range version (DUS30W-LR) for corridor applications.

12NC number	Catalog number	Description
	DUS90W	Wall mount wide angle
	DUS30W-LR	Long range lens (option)
913703064409	DINGUS-DUS-RJ45-DUAL	Optional CAT5/CAT6 Wiring Adapter (10 pcs)



**Dimensions** 3.3" x 2.6" x 1.8" (84 mm x 65 mm x 46 mm)

# **Captivation Driver Controllers**

#### Control without compromise

Captivation products include two controllers – a Phase Dimmer and a 0-10V Relay Dimmer. Together, the two Captivation controllers empower users to control nearly any type of switched and dimming lighting load in commercial applications. Captivation has been designed to meet today's regulations, practices and standards, allowing for simple 'at-the-circuit' lighting control installation without the complexity often associated with lighting control wiring and programming.

The Captivation products encompass two controllers the Captivation Phase Dimming Controller and Captivation 0-10V Relay Controller.

**Full compatibility** with all Dynalite user interfaces, load controllers and accessories.

**Ideally suited** to the demanding requirements of commercial, hospitality and office applications.

Enabling complete control of any 120V or 277V lighting circuit via just two controllers, Captivation can be used for standalone and networked lighting control solutions. Able to be installed easily and quickly by electricians, Captivation minimizes the time and cost usually associated with commissioning.

**Sold as a distributed controller, rather than in a large cabinet**, Captivation controllers can be mounted to any contractor supplied 4 x 4 junction box.

With enhanced functionality (Compared with competing lighting control products) Captivation provides a complete solution without the requirement for expensive additional infrastructure hardware. Low voltage control wiring can be run in both 'free-air' or conduits and uses common serial or CAT5 cabling, allowing it to meet all wiring requirements in Canada and the United States without requiring a different model or complicated adapters.

**Motion sensor input and power supply** for direct connection of a +24V DC motion sensor.

Dimensions 8.27" x 2.79" (210.1 mm x 70.9 mm)

# Captivation Phase Dimmer

Allows 600W forward or reverse-phase dimming control (changeable in the field) of any 120V or 277V lighting circuit all in one model. This effectively ensures that the correct dimmer is always provided for the fixture – regardless of the exact nature of the fixture to be controlled.

12NC number	Catalog number	Description
912400484635	DC-DPD-I-1S-101	Standard Product - Phase Dimmer - 1 Circuit
912400484633	DC-DPD-I-1C-101	0-10V + Relay 1 Circuit (meeting City of Chicago Plenum requirements)
912400484633	DL-CP-ZIPPY-NA	Captivation Handheld DMX Addressing Unit



# Captivation 0-10V Relay Dimmer

Similar to the Phase Dimmer the 0-10V Relay Dimmer enables both 16A switching and 0-10V Mark 7 style dimming control of any 120V or 277V lighting circuit.



12NC number	Catalog number	Description
912400484639	DC-DRD-I-1S-101	Standard Product - 0-10 + Relay - 1 Circuit
912400484637	DC-DRD-I-1C-101	0-10V+ Relay 1 Circuit (meeting City of Chicago Plenum requirements)
912400532645	DL-CP-ZIPPY-NA	Captivation Handheld DMX Addressing Unit

Network: Building-wide Connected Solutions

Load Controllers

# Multipurpose Modular Controller **DMC**

### Controls different load types with one device

The Dynalite DMC provides multichannel control via interchangeable modules. The device is available with a variety of control modules to handle various load types and capacities.

#### Single controller solution

Control a multitude of load types from one device, suited to any market segment requiring indoor lighting or relay control.

#### Phase cut dimmer module

Selectable per channel for Leading or Trailing Edge output. Compatible with most dimming loads.

#### Driver control module

Suitable for controlling 0-10V, DSI and DALI Broadcast drivers. A built-in relay removes power when channel level is at 0%.

**Relay control module** Suitable for controlling most types of switched loads.

#### 12NC number | Catalog number | Description

Enclosures		
913703666009	DMC2-UL	DMC2 Enclosure
913703667809	DMC4-UL	DMC4 Enclosure
Communication M	lodules	
913703666209	DCM-DYNET	DMC Dynet Communication Module
Power Supply Mo	dules	
913703500509	DSM2-XX	DMC2 Power Supply Module
913703668009	DSM4-XX	DMC4 Power Supply Module
Load Control Mod	ules	
913703667509	DMD316-UL*	Signal Control - 3x16A, 120-277V with switched outputs. 0-10V, DALI broadcast, DALI addressing
913703668709	DMD316-FR-UL*	Signal Control - 3x16A, 120-347V with feed-through switched outputs. 0-10V, DALI broadcast, DALI addressing
913703667609	DMP310-GL-UL	Phase Control - 3x10A, 120-277V, leading/trailing edge
913703668409	DMP603-GL-UL	Phase Control - 6x3A, 120-277V, leading/trailing edge
913703667409	DMR316-UL	Relay - 3x16A, 120-277V with switched outputs
913703668109	DMR610-GL-UL	Relay - 6x10A, 120-277V with switched outputs
Optional Cat5/Ca	t6 Wiring Adapters	
913703064209	DINGUS-DMC-UL	Dingus for use with DMC modules (10 pcs)

\* Consult Philips for availability of DALI enumeration capability.





# Flexible mounting solution

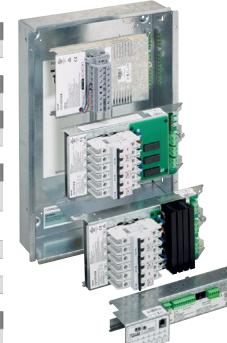
Surface or recess mountable enclosure.

#### Passive cooling

Fanless design reduces noise, power consumption and maintenance costs.

#### Dimensions

**DMC2:** 21.3" x 15" x 4.1" (540 mm x 380 mm x 103 mm) **DMC4:** 32.7" x 17.5" x 4.2" (830 mm x 445 mm x 106 mm)



# 10/100 BaseT Gateway envisiongateway

#### **Multipurpose Ethernet connection**

EnvisionGateway provides a multipurpose Ethernet connection to a Dynalite lighting control system. It supports access to both home or office lighting via a dedicated Philips app as well as providing a web interface delivering access to the inbuilt timeclock and schedule editor functions. It provides bridging functionality between Ethernet backbone and the DyNet fieldbus devices.



#### Large storage capacity

The device stores large project files internally, which apps use to autoconfigure their settings. This saves configuration time and ensures accuracy for phone and tablet control.

#### Inbuilt web server

12NC number 913703013809

Allows the user to check system settings via the Network Hardware Checker and System Roll Call tools.

#### No technical skills needed

Inbuilt timeclock and schedule manager allow the user to manage operation and task scheduling without advanced technical knowledge.

#### Powerful custom task engine

Description

10/100 BaseT Gateway

Allows users or third-party systems to run macros, such as 'After Hours', 'Shut Down', 'Welcome' and more.

#### Advanced interoperability

Supports management of Dynalite and Connected Lighting Solutions luminaires on a single system.

#### Dimensions:

3.8" x 4.3" x 1.5" (97 mm x 110 mm x 38 mm)

# RS232 Network Gateway DNG232-NA

**Catalog number** 

envisiongateway

#### **Cost-effective serial port integration**

The Philips DNG232 -NA network gateway provides cost-effective serial port integration between a DyNet network and third-party systems.

#### Seamless integration with third-party systems Including AV systems, data projectors, HVAC, BMS. motorized shades/screens, and security

BMS, motorized shades/screens, and security systems.

#### Internal controls

Including programmable logic controller capable of comprehensive conditional and sequential logic and arithmetic function processing.

#### Utilize data format library or create your own

A library of data formats is available for systems integrators, or can be created using the onboard conditional logic engine to assemble and transmit user-defined data strings.

#### Macro functions available

To simplify the control of multiple devices.

#### Flexible mounting solution

DIN-rail mountable, designed to be installed into a distribution board or other electrical enclosure.

#### Dimensions

3.7" x 8.3" x 2.9" (94 mm x 211 mm x 75 mm)



12NC number	Catalog number	Description
913703581209	DNG232-NA	RS232 Network Gateway

Network: Building-wide Connected Solutions

Interface Components

# Network Gateways DMNG-NA or DTK622-J

**Passive network integration** 

The network gateways provide passive integration to a PC or RS232 system.

#### Available in two formats

With either RS232 or USB connector.

#### Full duplex integration to RS232

Useful for linking the Dynalite control system with an AV or air conditioning system that supports RS232 communications.

#### Dimensions

0.9" x 2.0" x 3.6" (24 mm x 51 mm x 91 mm)

Simple network accessibility via USB

Complete access to all network messages present on DyNet. To be used in conjunction with any of the Philips connected lighting software, this tool can be used to commission, diagnose/repair with Dynalite Commissioning Software or used as a permanent gateway to the system for the Philips Indoor Lighting Management Platform head-end software.



12NC number	Catalog number	Description
913703580109	DMNG-232-NA	RS232 Version
913703090209	DTK622-USB-J	USB Version
913703580009	DMNG-USB-NA	USB Version

# Network Gateway DDNG485-NA

## Flexible network communications gateway for DyNet RS-485 networks

DDNG485-NA is a flexible network communications bridge designed for RS-485 networks. The two opto-isolated RS-485 ports enable the DDNG485-NA to implement a trunk and spur topology on large project sites, with the bridge providing a high-speed backbone opto-coupled to many lower speed spurs.



#### Electrical fault isolation

Faults can be isolated to individual network spurs.

#### Route DyNet to third-party systems

Such as audio-visual and building automation systems, providing an integrated approach to total building control and energy management.

#### DMX512 mode

Transmit or receive up to 64 channels of DMX512, with automatic DyNet conversion and task triggering. Provides temporary control of house lights from the DMX512 console in an auditorium scenario.

#### Internal controls

Including programmable logic controller capable of assembly and transmission of user-defined data strings.

#### Flexible mounting solution

DIN-rail mountable, designed to be installed into a distribution board or other electrical enclosure.

#### Dimensions:

3.8" x 4.1" x 2.9" (95 mm x 105 mm x 75 mm)

12NC number	Catalog number	Description
913703581009	DDNG485-NA	Network Gateway

# Low Level Input Integrator DDMIDC8-NA

#### **Cost-effective input integration**

The DDMIDC8 is designed to enable cost-effective input integration to your Philips Connected Lighting system from third-party systems such as Security, HVAC and BMS.

Eight digital inputs

Each can be individually configured as a dry contact or 0-24V AC/DC input.

**LED indicator on each input** Provides visual status indication. **Optical isolation** All inputs isolated for high noise immunity.

Four 0-5/0-10 V analogue inputs Software selectable.





**Programmable Logic Controller** Processes comprehensive conditional and sequential logic and arithmetic functions.

**Dimensions** 3.8" x 4.1" x 2.9" (95 mm x 105 mm x 75 mm)

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Network: Building-wide Connected Solutions

Interface Components

# BACnet Network Gateway DDNG-BACnet

High level BACnet network integration

The DDNG-BACnet gateway allows for high level integration between your Philips Connected Lighting system and any building management system (BMS) that uses the BACnet protocol.

**Direct control of lighting system** Permits direct control of the lighting system via the building's BMS network. Interrogation ability Allows interrogation of any area within the network for feedback of current lighting status.

12NC number	Catalog number	Description	
913703001309	DDNG-BACnet-1000	1000 address point interface	



A range of options Provides solutions suitable for both small and large scale installations.

**Dimensions** 4.0" x 6.7" x 2.9" (101 mm x 170 mm x 75 mm)

# Dry Contact Interface DLLI8I8O

Eight-way dry contact interface

The DLLI8180 is an eight-way dry contact interface with LED indicator outputs, that allows mechanical and electronic switches to communicate directly to the DyNet network.



**Dimensions** 2.1" x 1.2" x 0.6" (53 mm x 30 mm x 15 mm)

#### Compact size

Allows installation in electrical wall boxes for easy integration with third-party user interfaces.

#### Eight dry contact inputs

Each dry contact trigger is individually programmable for a range of tasks.

Eight	indicator	outputs
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Each output is individually programmable to drive an external LED indicator sharing a common cathode, communicating current system status or settings.

Allows up to 65 ft. (20m) cable runs Enables convenient connection to dry

contact interfaces in multiple rooms.

12NC number	Catalog number	Description
913703023009	DLLI8I8O	Dry Contact Interface

# Philips Indoor Lighting Management Platform

#### Multi-user control system management and monitoring software

It provides users with full visibility of the lighting and energy management system status and performance, while enabling simple local or global system adjustments.

#### Complete control

Initiate system changes, from a single lamp to the lighting state of an entire multi-story building, with a single mouse click.

#### Simple scheduling

Intuitive tools enable the user to schedule and manage events such as 'office space to day mode' or 'garages/parking lots to after-hours security mode' with ease.

#### Easy integration

Integration tools allow the user to manage more than just lighting. HVAC, motorized window shades and other systems are accessible through envision manager.

#### Manage routine maintenance

Full support of maintenance functions means that routine tasks can be undertaken without the involvement of a system specialist. Faults are automatically flagged for attention, ensuring that the facility continues to function and operational downtime is minimized.

#### Strike the balance

Alternate energy management schemes can be initiated automatically or manually, as required. Envision allows Facility Managers to balance energy efficiency with the needs of the occupants and can be initiated on either a tenancy or building-wide basis.

# Identify energy-saving initiatives based on current use

EnvisionDashboard presents live data as simple visual displays. It mines raw data for analysis, to both establish a benchmark for future improvements and pinpoint exactly where energy is being used.

#### Tailored control of individual light fittings

The optional EnvisionSwitch client resides in the task bar of a user's computer and allows task lighting to be tailored to the user's individual preferences. Linking back to the lighting control system ensures lights are not left on unnecessarily.

12NC number	Catalog number	Description
SW913703089909		Philips Indoor Lighting Management Platform

# **Envision Manager**



**Console page** 



Network: Building-wide Connected Solutions

Interface Components

# Philips Commissioning Software

#### Fast and efficient lighting control system set-up

Designed with the system installer and integrator in mind, our commissioning software is the latest rapid commissioning platform from Philips. This user-friendly and intuitive application sets a new benchmark for fast and efficient lighting control system set-up and commissioning.

#### New and improved set-up templates

Provides a simple and intuitive interface for access to advanced system functionality, allowing flexibility to modify, customize or create specific tasks if required.

#### Faster commissioning times

Includes a series of common device settings based on typical lighting control scenarios. Tailor to your project, save and replicate across other sites as required.

#### Virtual panel

Control any area of the system directly, run sequences and test final operations.

#### Complex functionality made simple

Manage logical grouping of lamps and other system hardware elements using simple graphical representations.

#### Maintenance made easy

Print out project floor plans with fixture details, including DALI addresses, to facilitate maintenance planning.

#### Live data details

The status of each lamp is visually represented using icons, which change color to reflect current lighting levels.

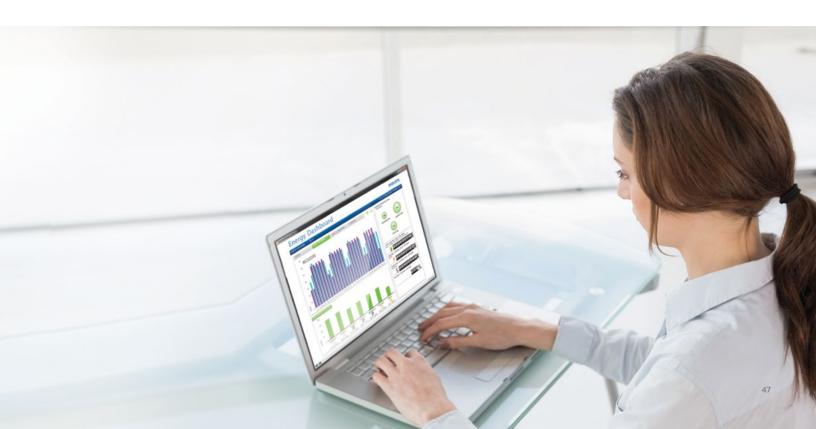


#### Monitor the whole system

Inbuilt network monitor details and logs all Philips network traffic, as well as DALI network traffic.

#### **Ordering Code**

Please contact you local Philips Representative.



# Looking for a total lighting solution?

# A Total Lighting Solution

Philips Lighting's One-Stop, Comprehensive Solution provides customers with a total 'BEST VALUE' plan. Our plan can be achieved in five strategic steps:

- 1. Understand your city's objectives, needs and lighting requirements set forth by federal and local jurisdictions.
- 2. Determine the best product solutions that meet your project's criteria.
- 3. Collaborate with Philips to customize a competitive financing plan.
- 4. Work with a Philips representative to set up product delivery dates, installation, and controls commissioning.
- 5. Survey your customers and analyze your data reports to determine if lighting and controls adjustments are needed.

# **Recommended Technical References and Guidelines**

- IESNA Lighting Handbook 10th Edition
- IES Recommended Practices
- Designlights Consortium
   www.designlights.org
- DOE Municipal Solid-State Street Lighting Consortium Model Specification www1.eere.energy.gov/buildings/ssl/consortium.html
- ANSI C136.41
- CEC Title 24
- ASHRAE Standard 90.1-2013
- CEC Title 20 for self contained control devices
- LRC

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# Contact us for answers **from inspiration to installation**.



# No matter what type of indoor lighting control you need, **we can help you to find the right solution.**

Call 800-372-3331, option 1 (US) / 800-668-9008 (Canada) or visit philips.com/lightingcontrolsna and select 'Controls Indoor' for more information.



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