POWERHUBB™

PoE LIGHTING & CONTROL

HUBBELL®
Control Solutions

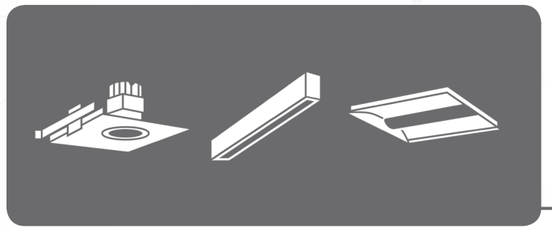
HUBBELL®
Lighting

POWERHUBB™
PoE LIGHTING & CONTROL

Hubbell's PowerHUBB™ is an enterprise-level, Power over Ethernet (PoE), lighting and control platform that seamlessly integrates luminaires, sensors, user interfaces and software for a scalable, intelligent building control solution.

Software & Controls

Hubbell Control Solutions' PowerHUBB platform delivers intelligent sensors, intuitive user interfaces and scalable PoE technology that enables a highly configurable, enterprise software solution with cloud analytics.



PoE Enabled Luminaires

Hubbell Lighting's portfolio of PowerHUBB enabled luminaires deliver quality illumination while reducing energy consumption, and total cost of ownership for PoE installations.

Infrastructure

Hubbell Premise Wiring manufactures a fully integrated system of copper and fiber network cabling, and components that are designed to meet PoE performance and reliability standards.

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PowerHUBB Advanced Energy Software Package Shown.

One Company, One Platform, Limitless Possibilities

Hubbell Control Solutions' PowerHUBB™ platform provides building owners and lighting practitioners with a fully integrated, end-to-end, intelligent PoE network leveraging the Internet of Things (IoT) to future-proof buildings through a highly scalable, digital ceiling platform. PowerHUBB's enterprise technology provides a clear path for cost-effective smart building deployments, delivering the best ROI in the industry.

Actionable Intelligence

PowerHUBB software can scale from basic lighting control to advanced cloud based analytics. The analytics provide building automation integration and IoT application development to deliver smart building solutions that help improve decision making, and the bottom line.

Simple and Flexible Deployment

A Power over Ethernet installation reduces material and labor cost by using a single Cat5e/6 connection for power and communication. This plug-and-play, low-voltage cabling approach greatly simplifies the installation process, saving time, minimizing safety risk and helps to alleviate resourcing constraints for skilled labor.

Code Compliance Made Easy

PowerHUBB delivers a system designed to meet the latest requirements of ASHRAE, IECC and Title 24 energy codes. Utilizing its robust software tools and embedded device intelligence, PowerHUBB provides a simple and customizable means to meet project requirements while delivering additional energy savings.

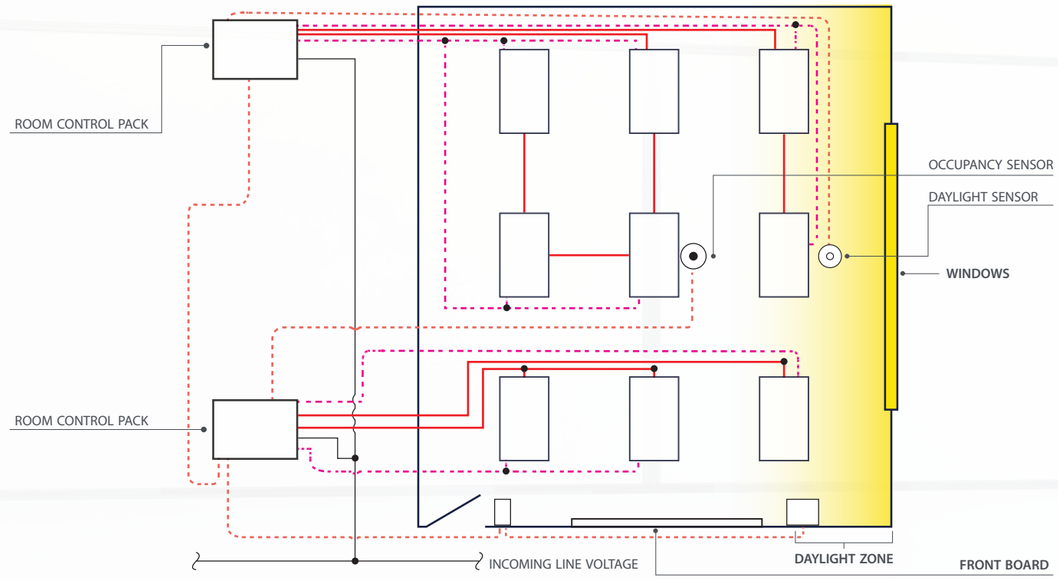
Enhanced Energy Savings

Greater energy savings can be realized by implementing PowerHUBB's advanced energy management tools, automation access and open Application Programming Interface (API) to drive scalable and aggressive control strategies across the building environment. Further reduction in energy consumption can be gained by using dashboards to visualize trends and measurements for optimizations and improved efficiencies.

Reduce Wiring and Installation Costs

PowerHUBB simplifies lighting and control installations and reduces time and material compared to traditional line voltage installations. See for yourself.

TYPICAL LINE VOLTAGE LUMINAIRE AND CONTROL INSTALLATION



TYPICAL POWERHUBB LUMINAIRE AND CONTROL INSTALLATION

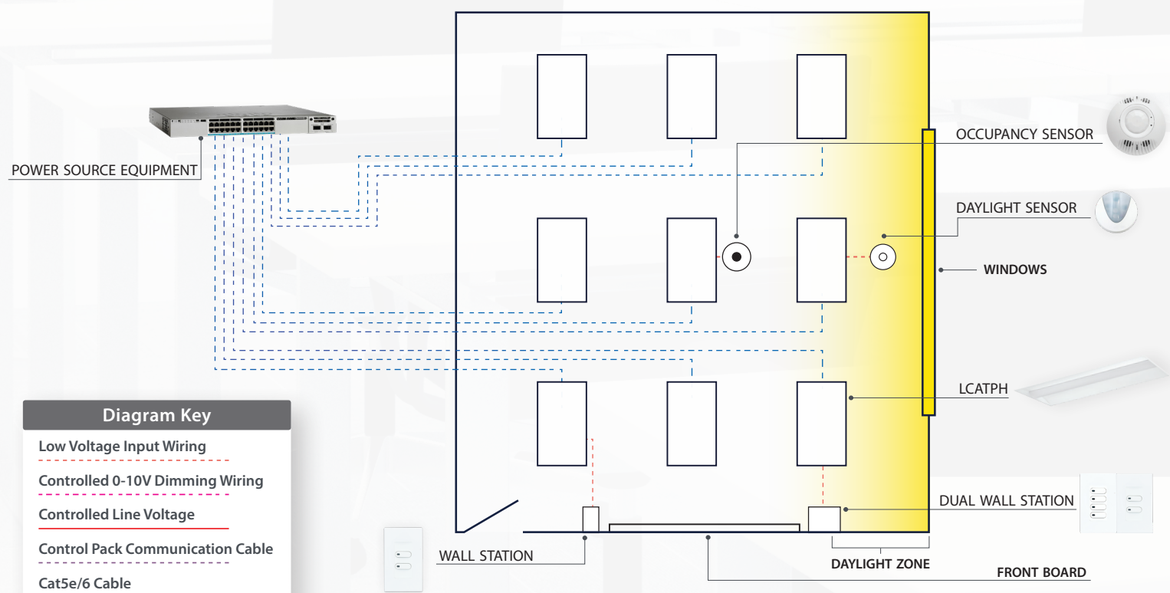


Diagram Key

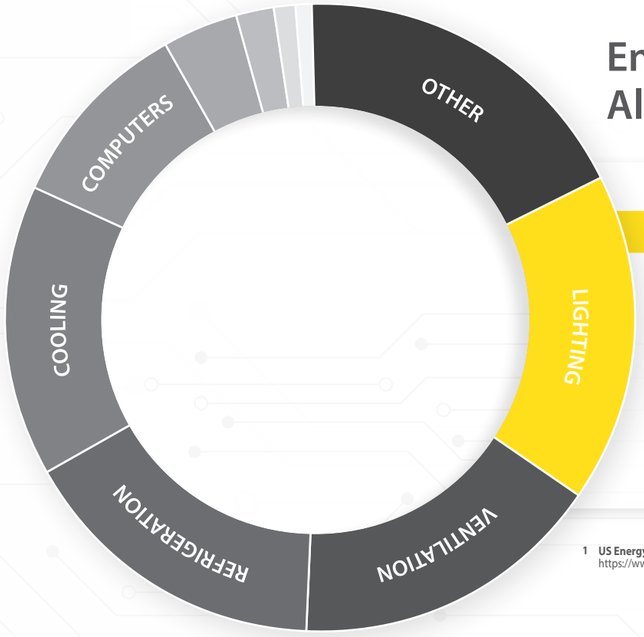
- Low Voltage Input Wiring
- Controlled 0-10V Dimming Wiring
- Controlled Line Voltage
- Control Pack Communication Cable
- Cat5e/6 Cable

Energy Savings and the Building Environment

PowerHUBB™ empowers building owners to reduce energy consumed by lighting which, on average, is 17% of the total energy consumption in a building. While commercial lighting energy use continues to decline as a result of increased LED lighting efficacy and more stringent energy codes, there are still opportunities for energy savings. For example, additional savings can be seen through the deployment of dimmable LED luminaires controlled with occupancy and/or daylight sensors.

Additional HVAC Savings

The Automation Access service package provides BACnet™ Integration with Building Management Systems (BMS) allowing an exchange of occupancy and daylight information to help manage energy strategies and promote additional energy efficiency improvements through other building systems, such as HVAC. Integrating lighting control equipment through BACnet has the added benefit of reducing the initial equipment cost, reducing wall and ceiling clutter by eliminating the need for duplicate sensors and leveraging Hubbell Controls Solutions advanced sensor technology. Enabling BMS control of dimmable LED luminaires may represent an additional point of control which reduces the overall thermal load within a conditioned space.



Energy by Use for All Building Types[1]

18%	Other
17%	Lighting
16%	Ventilation
16%	Refrigeration
15%	Cooling
10%	Computers
4%	Office Equipment
2%	Cooking
1%	Water Heating
1%	Space Heating

1 US Energy Information Association
https://www.eia.gov/consumption/commercial/reports/2012/energyusage/

Code Compliance at Every Level of Scalability

	ENERGY CODES				POWERHUBB Software Solutions	
	IECC 2015	ASHRAE 90.1 2016	Title 24 Part 6 2016	NFPA	Basic Package	Automation Access Service Package
INDOOR						
High-End Tuning					✓	
Local Control	C405.2.2.3	9.4.1.1 (a)	130.1 (a)		✓	
Multilevel Control	C405.2.2.2	9.4.1.1 (b)	130.1 (b)		✓	
Timeclock Off	C405.2.2.1	9.4.1.1 (i)	130.1 (c) 4		✓	
Occupancy Sensor Full OFF	C405.2.1.1	9.4.1.1 (h)	130.1 (c) 6		✓	
Occupancy Senor Partial ON	C405.2.1.1	9.4.1.1 (c)	130.1 (c) 5		✓	
Occupancy Sensor Partial OFF	C405.2.1.2	9.4.1.1 (g)	130.1 (c) 6		✓	
Daylighting	C405.2.3	9.4.1.1 (e)	130.1 (d)		✓	
BMS Integration					Contact Closure	BACnet™
Egress Lighting				✓		

PowerHUBB provides a complete networked building approach, that can maximize energy savings and meet or exceed today's energy code requirements.

HIGH END TRIM

High-End Trim - An artificial maximum light output set below actual maximum light output for each space

CONTROLS

Local Control - Manual lighting controls that control all the lights in that space and requires human intervention

Multilevel control - Providing additional light levels in a space beyond Full ON and Full OFF

CONTINUOUS DAYLIGHTING

Continuous Daylighting - Automatically turns lights down to a reduced level or off based on the amount of daylight present in a space

Daylight OFF - Automatically turns the lights off based on the amount of daylight

EGRESS LIGHTING

Egress Lighting - The code establishes minimum criteria for the design of egress facilities so as to allow prompt escape of occupants from buildings, or where desirable, into safe areas withing buildings.

DEMAND RESPONSE

Demand Response - A defined temporary reduction of lighting load or load shedding in response to a request from an energy authority such as a utility or regional transmission operator

SCHEDULING/ TIMECLOCK

Scheduling - Controls light levels based on facility schedule

OCCUPANCY SENSING

Full OFF - Automatically turns the lights off within a set period of time after all occupants leave the space

Partial ON - Automatically turns lights on to a reduced level between full on and full off when occupants enter the space

Partial OFF - Automatically turns lights down to a reduced level between full on and full off after all occupants leave the space

BMS INTEGRATION

BMS Integration - The data exchange for control and monitoring from a facilities Building Management System or Energy Management System using a common protocol such as BACnet™

Connect. Illuminate. Control. Empower.

PowerHUBB™ provides a seamless, code compliant, lighting power and control, intelligent building solution utilizing Power over Ethernet technology. The platform utilizes standard Ethernet Cat5e/6 cabling to distribute power and control, as well as provide monitoring capabilities over a PoE network - no line voltage wiring required. PowerHUBB technology is available in a variety of high-performance Hubbell LED luminaires and is supported by a wide range of Hubbell control and datacom devices.

1 Connect

Install Hubbell cabling infrastructure system and deploy and configure third party PoE network equipment for optimized performance and reliability.

2 Illuminate

Install desired PowerHUBB enabled, Hubbell LED luminaires across spaces to address power density requirements while delivering exceptional quality of light.

3 Control

Install Hubbell low voltage sensors and user interfaces then assign within PoE lighting network to provide additional energy savings and intuitive occupant control.

4 Empower

Install PowerHUBB software package(s), commission site to meet energy code, implement advanced energy saving strategies, integrate with building management systems, and enable third party solutions through an open API.

Diagram Key

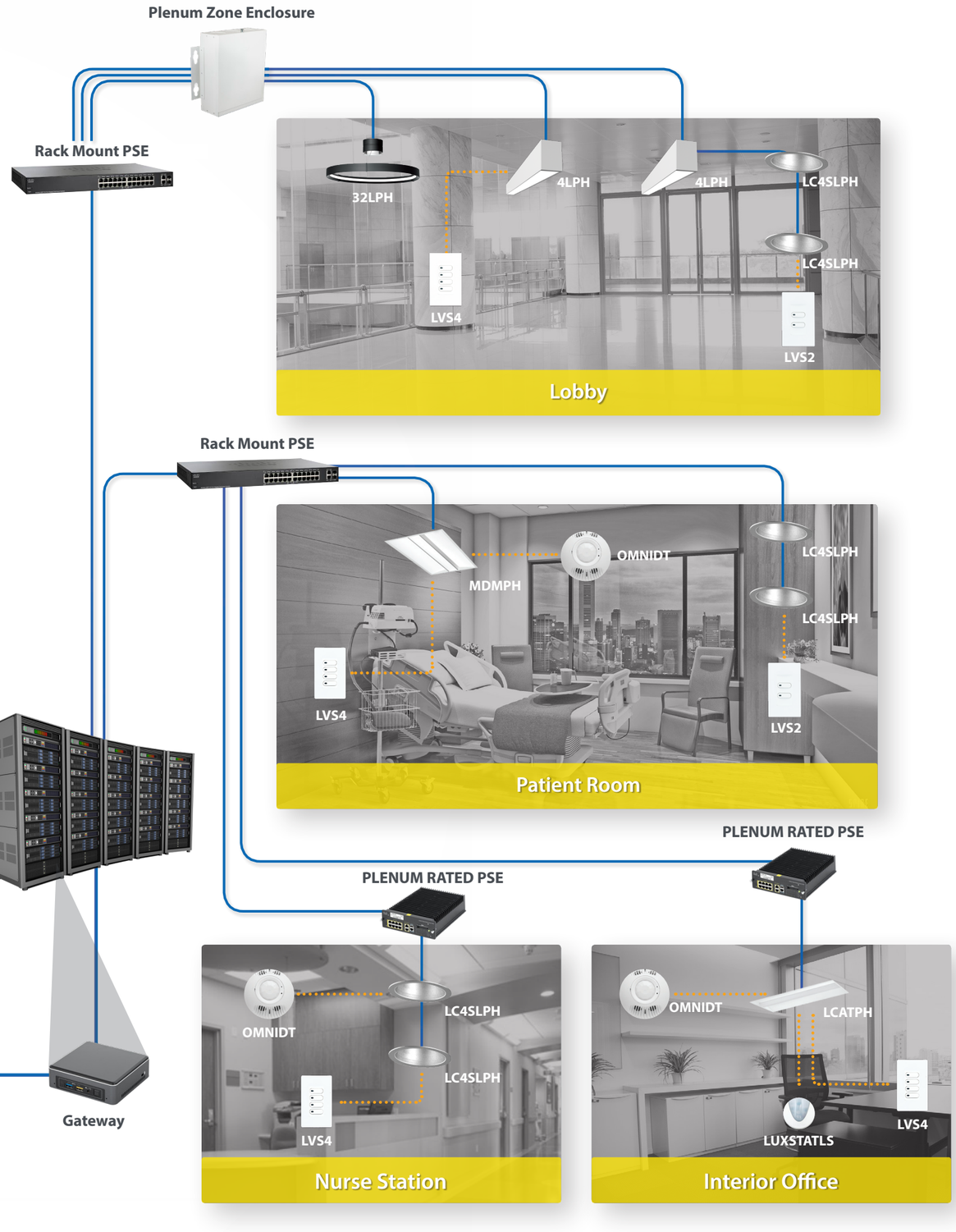
Cat5e/6 Cable

Low Voltage Multi-Conductor Cable

For additional application solutions utilizing PowerHUBB, please visit **www.hubbellcontrolsolutions.com**

PoE Network Equipment

PowerHUBB is compatible with power sourcing equipment (PSE) such as network switches and midspans from a variety of manufacturers. PSEs provide both low voltage power and allow two-way communication across the network. Please visit the Hubbell Control Solutions website at www. hubbellcontrolsolutions.com to view our approved listing of PSEs.



PoE Network Infrastructure

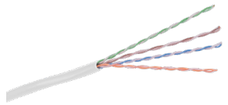
HUBBELL Premise Wiring

Hubbell Premise Wiring (HPW) manufactures a fully integrated system of copper and fiber network cabling and components that are designed to exceed all performance and reliability standards.

Hubbell cabling systems are subjected to continuous third party performance verification and carry a full 25-year MISSION CRITICAL® Application Assurance System Warranty. Hubbell Unshielded Twisted-Pair (UTP) cabling systems are engineered to support the future IEEE 802.3bt wattages, to assure long term operation with emerging applications such as PoE Lighting. For information, visit www.hubbell-premise.com

Cable

HPW provides specific low energy loss UTP network cables that maximize system efficiency and are UL Listed for Limited Power (LP) delivery.



NEXTPOWER 5e 22 AWG LP Cable Plenum - C5ELPPW | Riser - C5ELPRW

Racks and Cabinets

HPW manufactures a wide array of enclosures and racks that are used to house panels and switches in data centers, closets, or remote areas and zones.

Open Racks - HHR45U10 | Remote Equipment Enclosures - RE2 | Networking Cabinets - H2S8042

Cross Connect Panels

Patch panels and consolidation points are utilized to simplify labeling and patching over to network switches in Telco Rooms (TR), or work area zones.

HP5E12 – Surface Mount Panel | HP5E24W – Patch Panel | CPJ24 – Plenum Zone Enclosure

Equipment Outlet Jacks, Plugs, and Cords

HPW manufactures everything needed to provide the equipment outlet (EO) to the lighting fixtures. This includes jacks, couplers, field term plugs, traditional and plenum rated patch cords, housings, and plates.

HXJ5EW – Jack | HC5EW07 – Patch Cord | SP6 – Filed Term Plug

PowerHUBB™ Luminaire Portfolio

HUBBELL Lighting

Hubbell Lighting's portfolio of PowerHUBB™ enabled commercial and architectural luminaires deliver turn-key solutions for networked, Power over Ethernet lighting applications.

PowerHUBB-ready luminaires provide installer-friendly, plug-and-play installation and the flexibility to deliver quality illumination, while reducing energy consumption and total cost of ownership. For a complete list of luminaires with integrated PowerHUBB options please visit www.hubbellcontrolsolutions.com

Architectural & Commercial Indoor

Columbia LIGHTING

Healthcare Solutions

LCATPH

MDMPH

prescolite

LC4SLPH

LC6SLPH

LC8SLPH

LITECONTROL making light work™

32LPH

4LPH

LHFLPH

SAE301PH

Intelligent Controls and Sensing Devices

PowerHUBB™ offers intelligent devices to support the communication and sensing technologies for simple to complex PoE environments. With a broad offering of nodes, sensors and user interfaces, PowerHUBB delivers the flexibility to connect and control PoE deployments for smart building solutions.

PowerHUBB Nodes

- Provide power distribution and data connectivity for luminaires and control devices
- RJ45 ports provided for PoE power and bidirectional Input/Output (I/O) connections
- 1% to 100% dimming range in 1% increments
- 60W peak operating power
- External sensor/relay and wall switch connections
- Emergency Node provides UL924 listed functionality

OMNI®

Low Voltage Sensors

Occupancy/Vacancy Ceiling Mount Sensor

- Passive Infrared (PIR), Ultrasonic (US) and Dual Technology (DT) versions
- Proprietary IntelliDAPT™ Technology
- Optional relay and photocell control

LightOWL®
Occupancy/Vacancy Wall Mount Sensor

- Passive Infrared (PIR) and Dual Technology (DT) versions
- Proprietary IntelliDAPT Technology
- Optional relay and photocell control

LightHAWK®2
Occupancy/Vacancy Wall Switch Sensor

- Passive Infrared (PIR), Ultrasonic (US) and Dual Technology (DT) versions
- Proprietary IntelliDAPT Technology
- Optional relay and photocell control

HCSREC
Controlled Receptacle

- Split or fully controlled 15A or 20A options
- Downstream Branch Circuit Control
- Straight Blade Switched Duplex Receptacle 2 Pole, 3 Wire Grounding

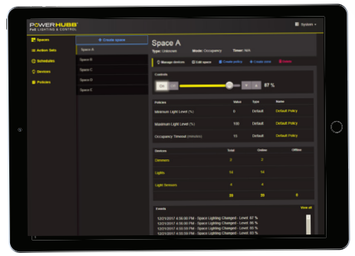
Low Voltage Wall Stations

- Supported by I/O connections on PowerHUBB nodes
- Offered in 1, 2, 3 and 4 button configurations
- Momentary button action
- Optional LED indicators available
- 24 VDC low voltage device

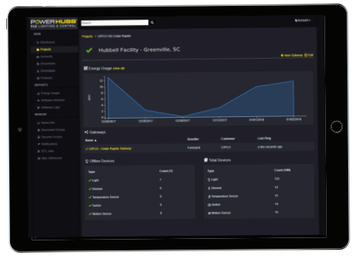
Enterprise Software and Cloud Analytics

PowerHUBB's scalable software suite provides configurable options for delivering advanced customized energy saving strategies, building automation integration, and enablement of IoT solutions.

From simple lighting control to advanced cloud based energy management analytics, PowerHUBB empowers your lighting to deliver value beyond illumination with a data driven, open platform.



Standard Lighting Control Software



Service Package

Advanced Energy Package*

Enterprise Management Package*

LIGHTING CONTROL SOFTWARE SUITE

Standard Lighting Control Software Package

- Supports lights, wall controls On/Off/Dim, motion sensors, and daylight sensors
- Lighting system commissioning, rapid-commissioning, and diagnostic tools
- Occupancy control (software-defined)
- High and low end trimming (software-defined)
- Daylight harvesting (software-defined)
- Lighting scheduling

ADVANCED SOFTWARE SERVICE PACKAGES

Connectivity

- API access and test suite
- Multi-IP network binding management

Automation Access

- Accepts BACnet™ commands and inquiries
- Supports temperature sensors

Service (via cloud portal)

- Near real-time system monitoring
- System status, analytics, statistics, and dashboards
- Advanced multi-recipient email alerts for critical system status
- Daily backups of configuration

Advanced Energy* (via cloud portal)

- Energy analytics, statistics, dashboards, and interactive reports
- Energy data repository

Enterprise Management* (via cloud portal)

- Multi-site enterprise performance and service dashboards
- Advanced log dashboard and analyzer
- Multi-user multi-role cloud portal logins

*Service Package Required

Comprehensive Support Options to Meet Project Needs

Phone and Online Support

While it is our goal to provide you with intelligent, simple and scalable control solutions, customer experience level and project complexity may necessitate additional support during the design development, construction and post-occupancy stages of a project. The Hubbell Control Solutions support team is available for consultation to evaluate multiple control scenarios to identify the ideal lighting control device or system to meet energy code requirement and customer criteria. Additionally, our team of friendly and experienced professionals is enabled to assist on-site personnel, such as installation contractors, third party integrators, certified field technicians and facilities personnel, to quickly resolve issues and provide additional support.

Design Service

Our team of lighting control system design professionals are available to provide sensor layouts, networked system design services and third party integration support for new and retrofit projects. Our goal is to provide you with on-time and accurate delivery of design deliverables optimized for your specific application, compliant with local building codes and project specifications.

On-site Support

Hubbell Control Solutions offers on-site support service to ensure your project goes smoothly. While Hubbell Control Solutions products are designed with simplicity in mind, some projects may benefit from a Certified Field Technician to perform an on-site pre-installation walk-through, after-hours and remote startup assistance, occupant training, sensor tuning, preset programming and other pre/post-occupancy services.

Warranty

Hubbell Lighting provides a 5-year limited warranty for LED luminaires and Hubbell Control Solutions devices. Hubbell Premise Wiring provides the MISSION CRITICAL® 25-year warranty providing assurance of the overall structured cabling system. To qualify for this warranty, start with HPW end-to-end cabling system and have the system installed by a HPW Certified Installer.

Technical Service Center:
(800) 888-8006

CONNECT.
ILLUMINATE.
CONTROL.
EMPOWER.

HUBB™

& CONTROL

POWER

PoE LIGHTING

HUBBELL Lighting

ALERA LIGHTING

ARCHITECTURAL AREA LIGHTING

BEACON PRODUCTS

COLUMBIA LIGHTING

COMPASS

DUAL-LITE

HEALTHCARE SOLUTIONS

HUBBELL CONTROL SOLUTIONS

HUBBELL INDUSTRIAL LIGHTING

HUBBELL OUTDOOR LIGHTING

KIM LIGHTING

KURT VERSEN

LITECONTROL

PRESCOLITE

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