DISTRIBUTED LIGHTING CONTROL SYSTEM SPECIFICATION:

PART 2 - PRODUCTS

2.4 EVO LITE STANDALONE CONTROL DEVICES:

A. ELPP – EVO Lite Power Pack: Each ELPP Power Pack shall provide standalone on/off and 0-10V dimming control of a single 20A (16A LED) load and provide 350mA of power for connected low voltage EVO Lite devices.
   1. Enclosure: Each ELPP Power Pack shall have a molded plastic enclosure with a ½" molded electrical nipple and mounting bracket.
   2. Plenum Rated: Each ELPP Power Pack shall have a molded plastic enclosure with a 5VA flammability rating suitable for plenum mounting. Controllers without this rating shall be unacceptable.
   3. Listing: Lighting controls shall be UL/CUL listed and be compliant with the following:
      a. FCC Part 15
      b. BAA and BABA
      c. Title 24, ASHRAE, IECC
   4. Controller Power Supply: Each ELPP Power Pack shall be provided with a dual-rated, ULlisted Class 2 power supply capable of 120/277 VAC (50 to 60 Hz).
   5. High Voltage Connections: Each ELPP Power Pack shall be provided with 6" wire leads for terminating the high voltage connections.
   6. Low Voltage Connections: Each ELPP Power Pack shall be provided with x2 RJ45 connectors for connecting EVO Lite devices with CAT5/5e/6 cable and have x3 20 AWG wire leads as an alternate connection method for occupancy sensors.
   7. Configuration Options: Each ELPP Power Pack shall have selectable configuration options to adjust the operation of the power pack.

B. ELG3 – EVO Lite G3 Switch: The ELG3 Switches shall be available in 1 or 2 zone, dimming or non-dimming configurations with 6 color options; White, Ivory, Light Almond, Gray, Black, and Red. Each switch shall have an associated pilot light.
   1. Listing: Lighting controls shall be UL/CUL listed and be compliant with the following:
      a. FCC Part 15
      b. BAA and BABA
      c. Title 24, ASHRAE, IECC
   2. Low Voltage Connections: Each ELG3 switch shall be provided with x2 RJ45 connectors for connecting to other EVO Lite devices with CAT5/5e/6 cable
   3. Power: Powered from EVO Lite Power Pack via CAT5/5e/6 cable.
   4. Button Labelling: Each ELG3 Switch shall have field replaceable faceplates with color change kits and the option for individually replaceable buttons that can be custom engraved. The LSWS shall also be field reconfigurable to change between different switch types.

C. ELWS – EVO Lite Wall Sensor Switch: The ELWS Sensor Switches shall provide dual-tech occupancy sensing via passive infrared (PIR) and overlapping passive acoustic sensing, and be available in 1 or 2 zone, dimming or non-dimming configurations with 6 color options; White, Ivory, Light Almond, Gray, Black, and Red. Each switch shall have an associated pilot light.
   1. Listing: Lighting controls shall be UL/CUL listed and be compliant with the following:
      a. FCC Part 15
      b. BAA and BABA
      c. Title 24, ASHRAE, IECC
   2. Low Voltage Connections: Each ELWS Sensor Switch shall be provided with x2 RJ45 connectors for connecting to other EVO Lite devices with CAT5/5e/6 cable.
   3. Power: Powered from EVO Lite Power Pack via CAT5/5e/6 cable.
   4. Button Labelling: Each ELWS Sensor Switch shall have field replaceable faceplates with color change kits and the option for individually replaceable buttons that can be custom engraved. The ELWS shall also be field reconfigurable to change between switch types.
   5. Sensor Functionality and Adjustments: The ELWS Sensor Switch shall support occupancy and vacancy modes and require an initial PIR event to enable acoustic functionality, which will overlap and enhance overall detection once enabled, and will extend sensor time delay upon occupant sound detection. To prevent sounds alone from keeping lights on indefinitely, periodic PIR detection shall be needed to keep lights on for an extended period, otherwise lighting shall automatically shut off after 5 minutes of acoustic detection only. Acoustic detection shall remain enabled for a brief period after the sensor times out, to allow for voice reactivation of the lights. Automatic Threshold Control filters background noise to fine tune acoustic sensitivity, filtering out non-occupant noises. Additionally, the ELWS shall allow for the following manual adjustments:
      a. Sensitivity adjustments for passive infrared and acoustic which can be independently adjusted to three different levels, including PIR-only mode
      b. Vacancy time-delay adjustments
      c. Enable/Disable LED indicators.

D. ELCS – EVO Lite Ceiling Sensor: The ELCS Ceiling Sensor shall provide dual-tech occupancy sensing via passive infrared (PIR) and overlapping passive acoustic sensing and include a full range photosensor to support open loop daylight harvesting.
   1. Listing: Lighting controls shall be UL/CUL listed and be compliant with the following:
      a. FCC Part 15
      b. BAA and BABA
      c. Title 24, ASHRAE, IECC
   2. Low Voltage Connections: Each ELCS Ceiling Sensor shall be provided with x2 RJ45 connectors for connecting to other EVO Lite devices with CAT5/5e/6 cable. Additionally, each ELCS Ceiling Sensor shall have the following:
      a. x3 22 AWG wire leads as an alternate connection method to EVO Lite Power Packs or other 24VDC power supplies.
      b. x3 22 AWG wire leads to provide N.O./N.C. auxiliary contacts for connection to HVAC or BAS systems.
      c. x2 22 AWG wire leads for direct 0-10VDC control of fixtures by the ELCS's full range photosensor.
   3. Power: Powered from EVO Lite Power Pack via CAT5/5e/6 cable or via x3 22 AWG wire leads as an alternate connection method.
   4. Sensor Functionality and Adjustments: The ELCS Ceiling Sensor shall support occupancy and vacancy modes and require an initial PIR event to enable acoustic functionality, which will overlap and enhance overall detection once enabled, and will extend sensor time delay upon occupant sound detection. To prevent sounds alone from keeping lights on indefinitely, periodic PIR detection shall be needed to keep lights on for an extended period, otherwise lighting shall automatically shut off after 5 minutes of acoustic detection only. Acoustic detection shall remain enabled for a brief period after the sensor times out, to allow for voice reactivation of the lights. Automatic Threshold Control filters background noise to fine tune acoustic sensitivity, filtering out non-occupant noises. Additionally, the ELWS shall allow for the following manual adjustments:
      a. Sensitivity adjustments for passive infrared and acoustic which can be independently adjusted to three different levels, including PIR-only mode
      b. Vacancy time-delay adjustments
      c. Enable/Disable LED indicators.
      d. Photocell 0-10V Scale and Relay cutout adjustments.

GENERAL ONE-LINE NOTES

A. ELECTRICAL CONTRACTOR TO PROVIDE CAT-5 DATA CABLE. SEE CAT-5 REQUIREMENTS SHEET & RJ45 CONNECTOR DETAIL.TEST ALL CABLE LENGTHS AND TERMINATION'S W/CAT-5 TESTER.
B. ALL CABLING SHOWN ON DIAGRAM TO BE CAT-5 UNLESS SHOWN WITH CROSES INDICATING NUMBER OF CONDUCTORS REQUIRED.18 AWG WIRING REQUIRED FOR LOW VOLTAGE OCCUPANCY / PHOTOSENSOR CONNECTIONS. REFER TO DOCUMENTATION PROVIDED BY ILC FOR EXACT WIRING TYPE SPECIFICATION.
C. ALL LOW VOLTAGE COMMUNICATION CABLE & HARDWIRE LOW VOLTAGE CONTROL WIRING TO BE INSTALLED PER NATIONAL ELECTRICAL CODE FOR CLASS-2 LOW VOLTAGE WIRING.
D. CLASS-2 LOW VOLTAGE WIRING SHALL NOT BE MIXED WITH OR RUN IN LINE VOLTAGE RACEWAYS. SEPARATE LOW VOLTAGE RUNS FROM LINE VOLTAGE BY A MINIMUM DISTANCE OF 1-FOOT.
E. CAT-5 DATA CABLE RUNS TO BE INSTALLED IN A DAISY CHAIN FROM ONE PANEL OR DEVICE TO THE NEXT. NO "STAR" OR "T" CONFIGURATIONS ALLOWED.
F. ALL CLASS-2 & CAT-5 DATA CABLE RUNS TO BE PROVIDED AND INSTALLED WITH THE APPROPRIATE JACKET TYPE OR CONDUIT FOR THE INSTALLATION ENVIRONMENT OR CONDITIONS ON SITE.
G. EACH EVOLITE CONTROLLER REQUIRES A DEDICATED 120V OR 277V CIRCUIT FOR CONTROL POWER TRANSFORMERS.
H. ASSUME ALL CABLING WITHOUT CONDUCTOR SLASHES IS TO BE CAT5/5e/6 UNLESS OTHERWISE NOTED ON THE RISER OR PRODUCT INFORMATION SHEETS.

ILC STAND-ALONE LIGHTING CONTROLS PRODUCTS

LINE VOLTAGE WALL SWITCH / SENSORS:		
	STANDALONE SINGLE RELAY =	#ONW-D-1001-MV-N SERIES
	STANDALONE DUAL RELAY =	#ONW-D-1001-DMV-N SERIES
	STANDALONE SINGLE RELAY WITH 0-10VDC =	#OSW-D-010 SERIES
LOW VOLTAGE CEILING SENSORS:		
	360 DEG COVERAGE =	#ELCS-06 (DT, P, DUAL TECH, PIR, ACOUSTIC 600 sq.ft)
	360 DEG COVERAGE =	#ELCS-20 (DT, P, DUAL TECH, PIR, ACOUSTIC 2000 sq.ft)
DAYLIGHT SENSORS:		
	INTERIOR SENSOR =	#ELCS-06-AR (INTEGRAL PHOTOSENSOR)
CONTROL UNITS:		
	1 RELAY POWER PACK =	#ELPP (120/277VAC 20A RELAY c/w 0-10V)
DIGITAL WALL CONTROLS:		
	PRESET =	#ELG3-? (1 - 2 ZONES)
	DIMMING =	#ELG3-?-MZD (1 - 2 ZONES w/DIMMING)
DIGITAL WALL SWITCH SENSOR:		
	PRESET =	#ELWS-? (1 - 2 ZONES)
	DIMMING =	#ELWS-?-MZD (1 - 2 ZONES w/DIMMING)
PHASE DIMMING		
	PHASE DIMMING CONVERTER =	#LR21F600 (120/277VAC 300W LED, 600W INC. FORWARD/REVERSE)

RISER SYMBOLS

EVOLITE WALL STATIONS

ELG3-xx-1: EVOLITE G3 CAT5 SWITCH DEVICE 1 ZONE

ELG3-xx-2: EVOLITE G3 CAT5 SWITCH DEVICE 2 ZONES

ELG3-xx-1-MZD: EVOLITE G3 CAT5 MULTI-ZONE DIMMER STATION 1 ZONE

LSG3-xx-2-MZD: EVOLITE G3 CAT5 MULTI-ZONE DIMMER STATION 2 ZONES

EVOLITE WALL SWITCH/SENSORS

ELWS-xx-1: EVOLITE CAT5 SWITCH SENSOR 1 ZONE

ELWS-xx-2: EVOLITE CAT5 SWITCH SENSOR 2 ZONES

ELWS-xx-1-MZD: EVOLITE CAT5 MULTI-ZONE DIMMER SWITCH SENSOR 1 ZONE

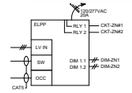
ELWS-xx-2-MZD: EVOLITE CAT5 MULTI-ZONE DIMMER SWITCH SENSOR 2 ZONES

EVOLITE CEILING SENSOR

ELCS-06: EVOLITE CAT5 CEILING MOTION SENSOR SMALL MOTION

ELCS-20: EVOLITE CAT5 CEILING MOTION SENSOR LARGE MOTION

EVOLITE SWITCHPACK/POWERPACK



ELPP: EVOLITE CAT5 1 POLE SWITCH PACK 20A 120/277V

STANDALONE DEVICE AVAILABLE ON NON-NETWORKED SYSTEMS AS NEEDED AND WHERE ALLOWED BY CODE.

DLCS SCHEDULE

SYSTEM TOPOLOGY	COMMUNICATION TOPOLOGY	FIXTURE INTEGRATED SENSING	BAS INTEGRATION	REMARKS
NON NETWORKED STAND ALONE	WIRED	NO	NO	

intelligent lighting controls
5229 Edina Industrial Blvd.
Minneapolis, MN 55439
952.829.1900 | ilc-usa.com

#	REVISIONS	DATE
1	xx	xx

DATE: 07/01/2024

SCALE: NONE

DRAWN BY: CW

Project:

EVOLITE BOILERPLATE

Title:

RISER DIAGRAM

GO#

Sheet:

R1