CRESTRON

GLPP
STAND ALONE SUBMITTAL

SUBMITTALS FOR APPROVAL

NOTE:
SUBMITTALS GENERATED FROM THE FOLLOWING PROJECT DOCUMENTATION:

PROJECT SPECIFICATIONS:
PROJECT DRAWINGS:
PROJECT FIXTURE SCHEDULE:

ENGINEER: **REVISION:** **DATE:**
IF THIS DOCUMENTATION IS NOT CURRENT IT IS THE RESPONSIBILITY OF THE APPROVER TO PROVIDE THE LATEST REVISION OF THE PROJECT DRAWINGS TO CRESTRON LIGHTING PROJECTS.

☐ Accepted
☐ Accepted with Notations
☐ Revise & Resubmit
☐ Rejected

_____
SIGNATURE DATE

_____
TYPED / PRINTED NAME

_____
COMPANY

Crestron Commercial Lighting Contacts

In most situations, the contacts shown on the cover page of this submittal will be the best resources for information over the course of this project. If you have any problems getting in touch with them, or for questions that don't seem best directed to those staff members, below are some additional resources for contacting Crestron.

CLCQuotes@Crestron.com	All quote requests, revisions, or general sales questions
CLCSubs@Crestron.com	Engineering questions or questions & comments about submittal documents
CLCOrders@Crestron.com	All NEW orders
CLCLighting@Crestron.com	General lighting, customer service or order status question, & RMA requests
CLCService@Crestron.com	Post-install service issues, tech support, programming, & start-up requests

Business Address:
6 Volvo Drive
Rockleigh, NJ 07647

Corporate Offices:
15 Volvo Drive
Rockleigh, NJ 07647

Telephone: Commercial Lighting: 855.644.7643
Fax: 201.767.3049

Crestron Main Switchboard: 800.237.2041

DRAWING SET REVISION HISTORY

REV	DATE	ENG	REVISION DESCRIPTION
00			

THE DRAWINGS CONTAINED WITHIN THIS SET ARE NOT TO SCALE.

CRESTRON
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Fax: 201-767-6011
www.crestron.com

PROJECT:
LOCATION:
QUOTE #: PO #: ORDER #:
SALES REP:
DISTRIBUTOR:

Scan QR code for latest Crestron documentation

TITLE: COVER PAGE
DRAWING: 01.1
REV:
DATE:
DRAWN BY:

Click here or enter URL for most current documents: http://www.crestron.com/products/green_light_commercial_lighting_control/resources.asp

DRAWING INDEX

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02.07		CRESNET POWER CALCULATIONS
03.01	00	BILL OF MATERIALS
04.01 SERIES	00	SCHEMATIC ONE-LINE DIAGRAMS
GLA-EPC-1-D		GLA-EPC-1-D LOAD CONTROL RELAY 4-WIRE DETAIL
GLPPA-KP		GLPPA-KP DETAIL DRAWING
GLPP-DIMFLVCN-PM		GLPP-DIMFLVCN-PM DETAIL DRAWING
GLPP-SWCN		GLPP-SWCN DETAIL DRAWING
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GLS-ODT-C-NS		GLS-ODT-C-NS OCCUPANCY SENSOR
GLS-ODT-W-1200		GLS-ODT-W-1200 OCCUPANCY SENSOR
CUTSHEETS		CUTSHEETS

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TITLE:
DRAWING INDEX

DRAWING:
01.2
REV:
DATE:
DRAWN BY:

Crestron General System Notes

Not all notes will be pertinent to all projects. The installing contractor should review these notes and determine their applicability to the project.

4-Wire 0-10v Dimming

- Crestron products with 4-wire 0-10v dimming are compatible with ballasts & drivers compliant with IEC 60929 Annex E. This is the most common standard in use in the U.S. This standard is for current sinking dimmers, with the dimming ballast being the voltage source. Ballasts requiring the dimmer to be the voltage source require additional components to be added to the order.

Fluorescent Lamps

- If fluorescent lamps are being dimmed, we recommend that all lamps, including a stock of spares, should be burned in at full intensity for 100 hours prior to dimming. This will improve lamp life and dimming performance. Please also review any manufacturer recommendations.

Color Choices

- Please carefully examine these submittals for notations regarding the color or finish of devices and confirm that all choices are correct. Restocking fees will apply for changing device colors after shipment.

System Programming

- Programming charges include 'Standard' & 'Modified' default keypad and touch screen templates. Additional design fees are required for certain custom graphics. Contact your Crestron Project MANAGER for details and charges.

Control System Power

- It is recommended that the system processor and all control signal distribution equipment be supplied by a dedicated, backed up, clean power source with surge & spike protection, furnished by others unless specifically noted otherwise in this submittal.

System Wiring & Electrical

- All installation and termination labor is furnished by the project electrical contractor.
- All Ethernet wiring must be terminated to the appropriate ANSI/EIA wiring specification. All other control wiring must be terminated per the Crestron wiring specification shown in this document.
- All line voltage conductors of the same circuit shall be contained in the same conduit, raceway, auxiliary gutter, cable tray, or cable.
- All low voltage control wire shall be separated appropriately to eliminate any possibility of secondary induced voltage due to line voltage wires in close proximity.
- Load circuit wiring shall have individual neutrals for any circuit with line-voltage dimming.
- Line feeds are to be determined by others.
- Phase-balancing of loads is to be determined by others. If this requires modification of Crestron panels, Crestron must be notified immediately and submittals shall be revised to ensure accurate programming of system.
- Replacement hardware shall be re-installed by licensed Electrical Contractor only.
- All Crestron control devices have an associated serial number. The Electrical Contractor must identify each SN for each device, and their location of installation on the plans. This information is required to program the system.

NOTICE:
THIS DRAWING PACKAGE IS THE PROPERTY OF AND CONTAINS INTELLECTUAL PROPERTY BELONGING TO CRESTRON ELECTRONICS, INC. THIS PACKAGE SHALL NOT BE REPRODUCED, USED, OR DISCLOSED WITHOUT PRIOR WRITTEN CONSENT. NO PORTION MAY BE INCORPORATED INTO ANY OTHER DESIGN OR SYSTEM LAYOUT.

WARNING
THIS DOCUMENT SET DOES NOT DESCRIBE AN INSTALLABLE SYSTEM UNTIL IT HAS BEEN REVIEWED FOR CODE COMPLIANCE BY THE PROJECT ELECTRICAL ENGINEER OR OTHER CODE-COMPLIANCE AUTHORITY. ALTHOUGH EVERY EFFORT HAS BEEN MADE TO PRODUCE A COMPLETE AND CODE-COMPLIANT DESIGN, CRESTRON INC. SPECIFICALLY DISCLAIMS ANY RESPONSIBILITY FOR CODE COMPLIANCE, WHICH IS THE RESPONSIBILITY OF THE PROJECT ELECTRICAL ENGINEER OR CODE AUTHORITY.

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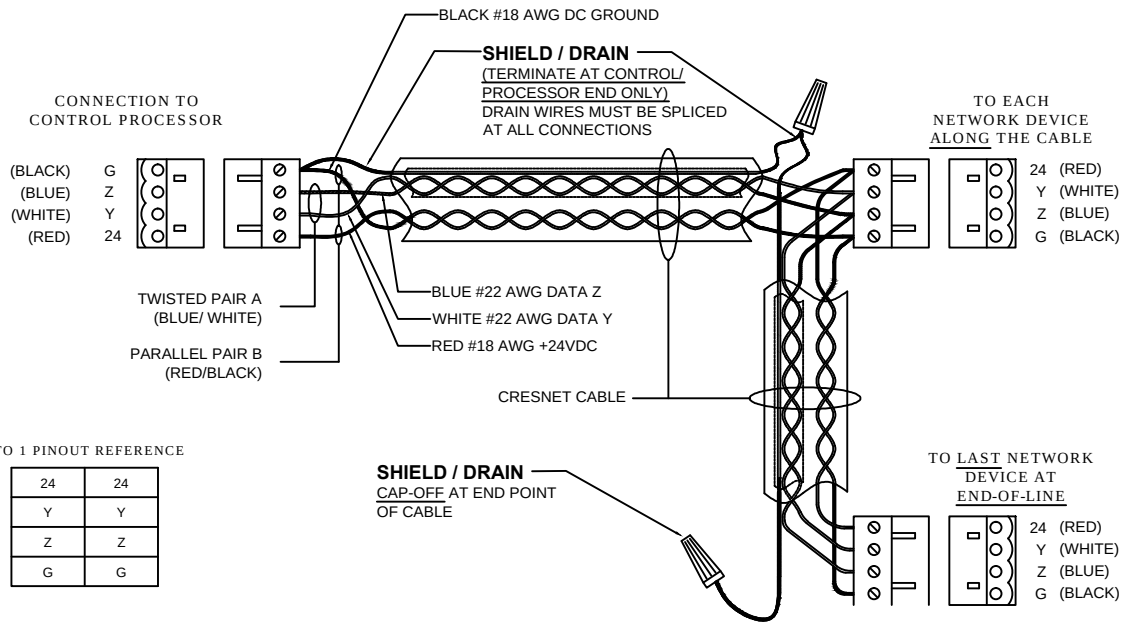
TITLE:
GENERAL SYSTEM NOTES

DRAWING:
02.1

CRESNET WIRING DETAILS

CAUTION: POSSIBLE EQUIPMENT DAMAGE IF MISWIRED



1 TO 1 PINOUT REFERENCE

24	24
Y	Y
Z	Z
G	G

COLOR CODE - CRESNET CABLE

GND	=	BLACK
Z	=	BLUE
Y	=	WHITE
24	=	RED

DATA PAIR (#22 AWG TWISTED) — POWER PAIR (#18 AWG PARALLEL-STANDARD CABLE) (#12 AWG PARALLEL-HIGH POWER CABLE)

WIRING NOTES

DO THIS:

GENUINE CRESNET CONTROL CABLE IS RECOMMENDED FOR CONNECTION OF CRESTRON COMMERCIAL LIGHTING SYSTEMS.

STRIP ONLY THE MINIMUM AMOUNT OF JACKETING FROM THE WIRES, AND **INSULATE ANY EXPOSED CONDUCTORS/ DRAIN WIRES** WITH HEAT SHRINK TUBING, OR AT A MINIMUM PVC ELECTRICAL TAPE.

GROUND SHIELD/DRAIN AT CONTROL PROCESSOR END **ONLY**.

SHIELD/DRAIN MUST BE SPLICED TOGETHER AT EVERY CONNECTION AND CAPPED-OFF AT END OF CONTROL RUN.

SHIELD/DRAIN SHOULD NOT CONNECT TO ANY DISTRIBUTION DEVICES (DIN-HUB, DIN-BLOCK, CNTBLOCK) BUT SHOULD BYPASS THE DISTRIBUTION DEVICE, SPLICING ALL REQUIRED DRAINS TOGETHER AS DONE AT ALL CONNECTIONS ALONG CONTROL CABLE RUNS.

WHEN DAISY CHAINING NETWORK UNITS, ALWAYS TWIST THE ENDS OF THE INCOMING WIRE AND THE OUTGOING WIRE THAT SHARE A PIN ON THE NETWORK CONNECTOR. IF NECESSARY USE A PIGTAIL SPLICE WHEN LANDING MORE THAN TWO CONDUCTORS ON A SMALL GREEN PHOENIX CONNECTOR. A PIGTAIL WILL ALWAYS BE REQUIRED WHEN TERMINATING MULTIPLE "HP" (HIGH-POWER) CABLES INTO ONE CONNECTOR DUE TO THE LARGER POWER CONDUCTORS.

MODEL "CNTBLOCK" NETWORK DISTRIBUTION/ TERMINAL BLOCKS ARE RECOMMENDED FOR TESTING PURPOSES AND CONVENIENCE OF WIRING.

DO NOT DO THIS:

DO NOT POWER UP SYSTEM UNTIL ALL WIRING IS VERIFIED. CARE SHOULD BE TAKEN TO ENSURE DATA (Y,Z) AND POWER (24,G) CONNECTIONS ARE NOT CROSSED.

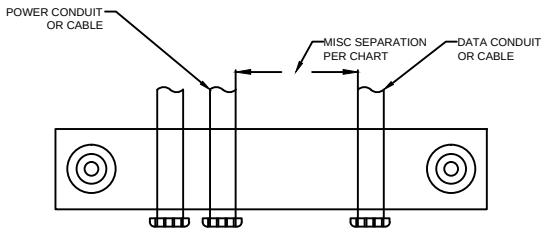
DO NOT CONNECT THE SHIELD/DRAIN WIRE OF ANY CRESNET CABLE TO GROUND AT ANY CONNECTION POINT EXCEPT THE CONTROL PROCESSOR.

DO NOT ALLOW ANY EXPOSED SHIELD/DRAIN WIRE TO MAKE CONTACT WITH ANY ELECTRICAL GROUND. IF ANY WIRE IS EXPOSED, IT MUST BE INSULATED- HEAT SHRINK TUBE IS RECOMMENDED, BUT AT A MINIMUM PVC ELECTRICAL TAPE CAN BE USED.

DO NOT EXCEED THE "MAXIMUM LENGTH" SHOWN IN THE CABLE IDENTIFICATION BLOCK OF ANY CABLE. 1000' IS THE NORMAL MAXIMUM LENGTH THAT WILL BE INDICATED. IN MOST SITUATIONS 1500' WILL BE POSSIBLE, BUT IS NOT RECOMMENDED DUE TO POSSIBLE INTERFERENCE & INDUCED VOLTAGE. LONGER CABLE RUNS WILL REQUIRE SIGNAL HUBS OR REPEATERS TO ENSURE SIGNAL RELIABILITY. (SEE NEXT SHEET FOR MORE INFO ON CRESNET POWER.)

DO NOT EXCEED 20 CRESNET "DEVICES" ON ANY ONE NETWORK SEGMENT WITHOUT DISCUSSING THE POSSIBLE IMPLICATIONS WITH YOUR CRESTRON PROJECT ENGINEER. (SEE NEXT SHEET FOR MORE INFO ON CRESNET DEVICES.)

PROPER SEPARATION OF POWER & DATA



SEPARATION OF POWER & DATA CABLING

TAKEN FROM ANSI/NECA/BICSI 568-2001

PROTECTION	POWER <2KVA	POWER 2-5KVA	POWER >5KVA
NONE- POWER & DATA CABLE OPEN AIR	5" (127MM)	10" (305MM)	24" (610MM)
DATA IN CONDUIT, POWER OPEN AIR	2.5" (64MM)	6" (152MM)	12" (305MM)
BOTH POWER & DATA IN CONDUIT	0	0	6" (152MM)
SPECIAL CASE: MOTORS OR TRANSFORMERS NEAR DATA CABLE IN CONDUIT	0	0	48" (1220MM)

SEPARATION SHOWN IS THE **MINIMUM** ALLOWABLE BY THIS STANDARD. GREATER SEPARATION IS PREFERABLE

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TITLE:
CRESNET WIRING INSTRUCTIONS

DRAWING:
02.6

CALCULATING POWER USED AND MAXIMUM CABLE LENGTH

THESE NOTES ONLY RELATE TO SYSTEMS WITH DEVICES INTERCONNECTED VIA CRESNET OR ETHERNET
(SPACES INDICATED WITH "NET" IN THE SPACE LEXICON)

IN MOST CASES, CRESTRON WILL CALCULATE THE CABLE REQUIREMENTS OF THE CRESTRON SYSTEM AS A PART OF THE SUBMITTAL PACKAGE. IN CASES WHERE CRESTRON HAS NOT BEEN PROVIDED WITH COMPLETE INFORMATION TO GENERATE THE SUBMITTAL THE INSTALLING CONTRACTOR MUST REVIEW & UNDERSTAND THE INFORMATION ON THIS PAGE IN ORDER TO PROPERLY INSTALL THE LIGHTING SYSTEM.

CABLE IDENTIFICATION BLOCK

CRESNET CABLE 1	
DEVICES	12
WATTS USED	14
MAX LENGTH	476
MIN VOLTS	22V

EACH CONTROL CABLE RUN ON THE CRESTRON RISER DRAWINGS SHOULD INCLUDE A BLOCK LIKE THE ONE SHOWN TO THE LEFT. THIS SHOWS THE NUMBER OF CRESNET DEVICES ATTACHED TO THE CABLE, THE MAXIMUM LENGTH THAT WILL ALLOW CORRECT FUNCTION, AND THE MINIMUM VOLTAGE THAT SHOULD BE MEASURED AT THE END OF THE CABLE MOST DISTANT FROM THE PROCESSOR OR MID-POINT POWER SUPPLY/DISTRIBUTION HUB. MAXIMUM LENGTH IS SHOWN FOR STANDARD CRESNET CABLE; USING CRESNET-HP (HIGH-POWER) CABLE ALLOWS YOU TO MULTIPLY THE LENGTH BY APPROXIMATELY 3.5 TIMES.

THE CONTRACTOR SHOULD LABEL THE PROCESSOR END OF THE CABLE WITH THE APPROPRIATE CRESNET CABLE NUMBER. WHILE NOT STRICTLY REQUIRED, IS IS RECOMMENDED THAT THE CABLE BE LABELED AT EACH SPLICE POINT, IN THE EVENT TROUBLESHOOTING IS REQUIRED DURING SYSTEM COMMISSIONING.

THIS CABLE ID BLOCK MAY BE OMITTED ON SMALLER PROJECTS, OR PROJECTS WITH LIMITED POWER REQUIREMENTS.

CRESNET DEVICES:

"DEVICES" INDICATES THE NUMBER OF LOGICAL CRESNET DEVICES ON THE CABLE. THIS NUMBER MAY NOT BE OBVIOUS WHEN EXAMINING THE RISER. FOR EXAMPLE, IN SOME DIMMING/SWITCHING PANELS EACH INTERNAL MODULE MAY COUNT AS A SEPARATE DEVICE. ALTERNATELY, IF TWO SENSORS ARE CONNECTED TO ONE GLS-SIM INTERFACE, ONLY THE INTERFACE COUNTS AS A CRESNET DEVICE. IN MOST CASES THE MAXIMUM NUMBER OF CRESNET DEVICES ON ANY ONE WIRING SEGMENT IS (20). A "SEGMENT" IS A GROUPING OF PORTS AS SHOWN ON THE PROCESSOR WIRING DETAIL SHEETS, AND OFTEN INCLUDES MORE THAN ONE CRESNET CABLE. CRESNET "HUBS" (i.e. DIN-HUB) MAY BE USED TO INCREASE THE NUMBER OF DEVICES ON ONE SEGMENT, BUT SHOULD NOT BE ADDED WITHOUT CONSULTING THE CRESTON PROJECT ENGINEER.

CRESTRON STRONGLY RECOMMENDS THAT THE EQUIPMENT IN THIS SYSTEM BE INSTALLED AS SHOWN ON THE RISERS. MINOR CHANGES ARE ACCEPTABLE- FOR EXAMPLE, ALTERING THE ORDER OF DEVICES ALONG A CABLE. HOWEVER, ADDING OR REMOVING DEVICES WILL HAVE AN IMPACT ON THE DEVICE COUNT AND POWER REQUIREMENTS.

FURTHER, THE INFORMATION AS PROVIDED IN THE CABLE IDENTIFICATION BLOCKS IS ALSO USED FOR THE PREPARATION OF THE PROCESSOR WIRING DETAIL SHEETS IN THIS PACKAGE. ALTERING THE DEVICE QUANTITY MAY HAVE SIGNIFICANT IMPACT ON THESE DRAWINGS.

IF THE WIRING AS SHOWN ON THE CRESTRON RISERS IS NOT POSSIBLE, THE INFORMATION BELOW MAY BE USED TO CALCULATE THE MAXIMUM POSSIBLE LENGTH OF A CABLE. NO CABLE SHOULD EXCEED 1000' WITHOUT DISCUSSION WITH YOUR PROJECT ENGINEER. MUCH LONGER DISTANCES ARE POSSIBLE, BUT MUST BE DISCUSSED WITH CRESTRON. USING CRESNET-HP HIGH POWER CABLE DOES NOT EXTEND THIS LIMIT. IF A LONGER CABLE IS REQUIRED A SIGNAL HUB OR REPEATER MAY BE ADDED ALONG THE CABLE.

PLEASE CONTACT YOUR CRESTRON PROJECT ENGINEER IF YOU HAVE ANY QUESTIONS REGARDING THE WIRING REQUIREMENTS OF THE SYSTEM, OR IF YOU NEED ASSISTANCE IN ALTERING THE RISERS. YOUR PROJECT ENGINEER IS AVAILABLE AS A RESOURCE TO HELP.

ANY CHANGES MADE TO THE WIRING AS SHOWN ON CRESTRON RISERS MUST BE COMMUNICATED TO CRESTRON NO LATER THAN WHEN YOU REQUEST SYSTEM COMMISSIONING.

ANY CHANGES MADE TO THE RISERS THAT ARE NOT COMMUNICATED TO CRESTRON THAT REQUIRE ALTERING SYSTEM PROGRAMMING AT THE TIME OF COMMISSIONING MAY RESULT IN ADDITIONAL CHARGES FOR REPROGRAMMING OR ADDITIONAL SERVICE VISITS.

POWER DRAW OF COMMON CRESTRON DEVICES

CATEGORY	DEVICE	DESCRIPTION	POWER DRAW	NOTES
PROCESSORS	PAC2	PAC2 PROCESSOR	25W	CONTAINS 75W POWER SUPPLY; CAN POWER 50W OF EXTERNAL DEVICES
	PAC2M	PAC2M PROCESSOR	5W	
	DIN-AP3	DIN RAIL MOUNT PROCESSOR	8W	
	IPAC-GL1	INTEGRATED PROCESSOR	10W	
	GLPAC-DIMFLV	INTEGRATED DIMMING/SWITCHING PANEL	0W	DOES NOT DRAW ANY CRESNET POWER; SUPPLIES 10W TO LOCAL DEVICES
	GLPP (SWCN OR DIMFLV)	POWER PACK WITH INTEGRATED DIMMING OR SWITCHING	0W	DOES NOT DRAW ANY CRESNET POWER; SUPPLIES 2.5W TO LOCAL DEVICES
KEYPADS	C2N-CBD-P	CAMEO KEYPAD	1W	
	C2N-CBD-E	CAMEO EXPRESS KEYPAD	1W	
	CNX-B	DESIGNER KEYPAD	3W	
SENSORS & ACCESSORIES	GLS-SIM	SENSOR INTEGRATION MODULE	1W	
	GLS-ODT-x	DUAL TECHNOLOGY OCCUPANCY SENSORS	1W	
	GLS-ODT-C-CN	CRESNET DUAL TECH OCCUPANCY SENSOR	1W	
	GLS-OIR	INFRARED OCCUPANCY SENSORS	1W	
	GLS-LOL, LCL	PHOTOCELLS	1W	
	GLS-LEXT	EXTERIOR PHOTOCELL	1W	
	GLS-PART	PARTITION SENSOR	1W	
	C2N-SDC	SHADE/DRAPE CONTROLLER	3W	
	C2N-SDC-DC	DC SHADE/DRAPE CONTROLLER	33W	REQUIRES DEDICATED GLA-PWS50 OR GREATER POWER SUPPLY
	C2N-IO	PORT EXPANDER, RS232 & RELAY OUTPUTS	3W	
DIN RAIL UNITS	DIN-DALI-2	DALI CONTROLLER	9W	MAY USE POWER OVER ETHERNET; DEFAULTS TO CRESNET POWER IF BOTH ARE PRESENT
	DIN-HUB	CRESNET DISTRIBUTION HUB	.6W	
	DIN-1DIM4	DIMMER MODULES	.6W	SAME FOR DIN-1DIMU4
	DIN-8SW8	SWITCH MODULE	5.4W	SAME FOR DIN-8SW8-I
TOUCHPANELS	TPS-6L	6" TOUCHPANEL	15W	
	TPMC-8L	8" TOUCHPANEL	33W	
	TPMC-V12	12" TOUCHPANEL	43W	

"TSW-" AND "TPMC" TOUCHSCREENS NOT LISTED HERE ARE POWER-OVER-ETHERNET DEVICES THAT DO NOT DRAW CRESNET POWER.
FOR DEVICES NOT LISTED HERE, SEE THE APPROPRIATE SPECIFICATION SHEET OR VISIT WWW.CRESTRON.COM .
YOU MAY ALSO USE THE CRESNET POWER CALCULATOR, FOUND AT:
http://www.crestron.com/resources/system_design_resources/calculators/cresnet_power_calculator/

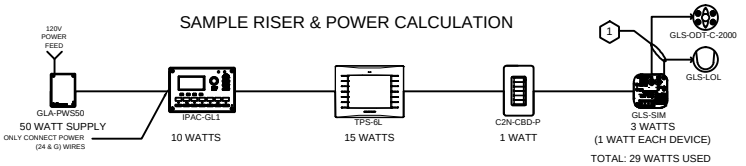
THE CRESNET POWER CALCULATION:

MAXIMUM CRESNET CABLE LENGTH

$$L < \frac{40{,}000}{R \times P}$$

Where L = Maximum Length of run in feet from power source
R = 6 Ohms for Cresnet Certified wire or
1.6 Ohms for Cresnet High Power Certified wire
P = Cresnet Power usage of entire run

SAMPLE RISER & POWER CALCULATION



TOTAL: 29 WATTS USED
21 WATTS STILL AVAILABLE

TO CALCULATE THE MAXIMUM LENGTH CABLE FOR THE ABOVE EXAMPLE TAKE THE TOTAL POWER USED (28 WATTS) AND MULTIPLY IT BY THE RESISTANCE OF THE WIRE, THEN DIVIDE 40,000 BY THAT NUMBER.

CRESNET STANDARD CABLE (CRESNET-NP OR CRESNET-P) HAS A RESISTANCE OF 6 OHMS.

29 WATTS X 6 OHMS = 174
40,000 DIVIDED BY 174 GIVES YOU A RESULT OF A MAXIMUM CABLE RUN OF 230 FEET.

CRESNET HIGH-POWER (CRESNET-HP-NP) CABLE HAS A LOWER RESISTANCE OF 1.6 OHMS.

29 WATTS x 1.6 OHMS = 46.4
40,0000 DIVIDED BY 46.4 GIVES YOU A MAXIMUM LENGTH OF 862 FEET.

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TITLE:
CRESNET POWER CALCULATIONS

DRAWING:
02.7

Bill of Materials

GLPP CONTROLLERS

QTY	PART #	DESCRIPTION
0	GLPP-SWCN	GREENLIGHT POWERPACK, ONE FEED, ONE SWITCHED LOAD
0	GLPP-1SW2CN	GREENLIGHT POWERPACK, ONE FEED, TWO SWITCHED LOADS
0	GLPP-1SW3CN	GREENLIGHT POWERPACK, ONE FEED, THREE SWITCHED LOADS
0	GLPP-DIMFLVCN-PM	GREENLIGHT POWERPACK, ONE FEED, ONE SWITCHED OR 4-WIRE DIMMED LOAD
0	GLPP-1DIMFLV2CN-PM	GREENLIGHT POWERPACK, ONE FEED, TWO SWITCHED OR 4-WIRE DIMMED LOADS
0	GLPP-1DIMFLV3CN-PM	GREENLIGHT POWERPACK, ONE FEED, THREE SWITCHED OR 4-WIRE DIMMED LOADS

KEYPADS

QTY	PART #	DESCRIPTION	COLOR
0	GLPPA-KP	GREENLIGHT POWERPACK REMOTE KEYPAD, ROCKER SWITCH OR 4-BUTTON	WHITE
0	GLPPA-KP1	GREENLIGHT POWERPACK REMOTE KEYPAD, 1 ZONE	WHITE
0	GLPPA-KP2	GREENLIGHT POWERPACK REMOTE KEYPAD, 2 ZONE	WHITE
0	GLPPA-KP3	GREENLIGHT POWERPACK REMOTE KEYPAD, 3 ZONE	WHITE
0	GLPPA-KP4	GREENLIGHT POWERPACK REMOTE KEYPAD, MASTER	WHITE

SENSORS

QTY	PART #	DESCRIPTION
0	GLS-ODT-C-NS	DUAL TECHNOLOGY OCCUPANCY SENSOR, CEILING MOUNT, 2000 Sq. Ft., ADJ. SENSITIVITY, CONNECTS
0	GLS-ODT-W-1200	DUAL TECHNOLOGY OCCUPANCY SENSOR, WALL MOUNT, 1200 Sq. Ft.
0	GLS-LOL	INTERIOR OPEN LOOP PHOTOCELL

MISCELANEOUS

QTY	PART #	DESCRIPTION
0	GLA-EPC-1-D	UL924 AUTOMATIC LOAD CONTROL RELAY FOR SWITCHING OR 4-WIRE DIMMING LOADS
0	GLPPA-REMOTE-PROG	PROGRAMMING REMOTE FOR GREENLIGHT POWER PACK

Notes:

1. Please ensure all colors shown on this bill of materials are correct prior to releasing the order for shipment.
2. The addition of hardware to this order may result in additional programming charges.
3. If there are any corrections please make sure to notify your Crestron Project Engineer, listed on the cover page of this submittal.

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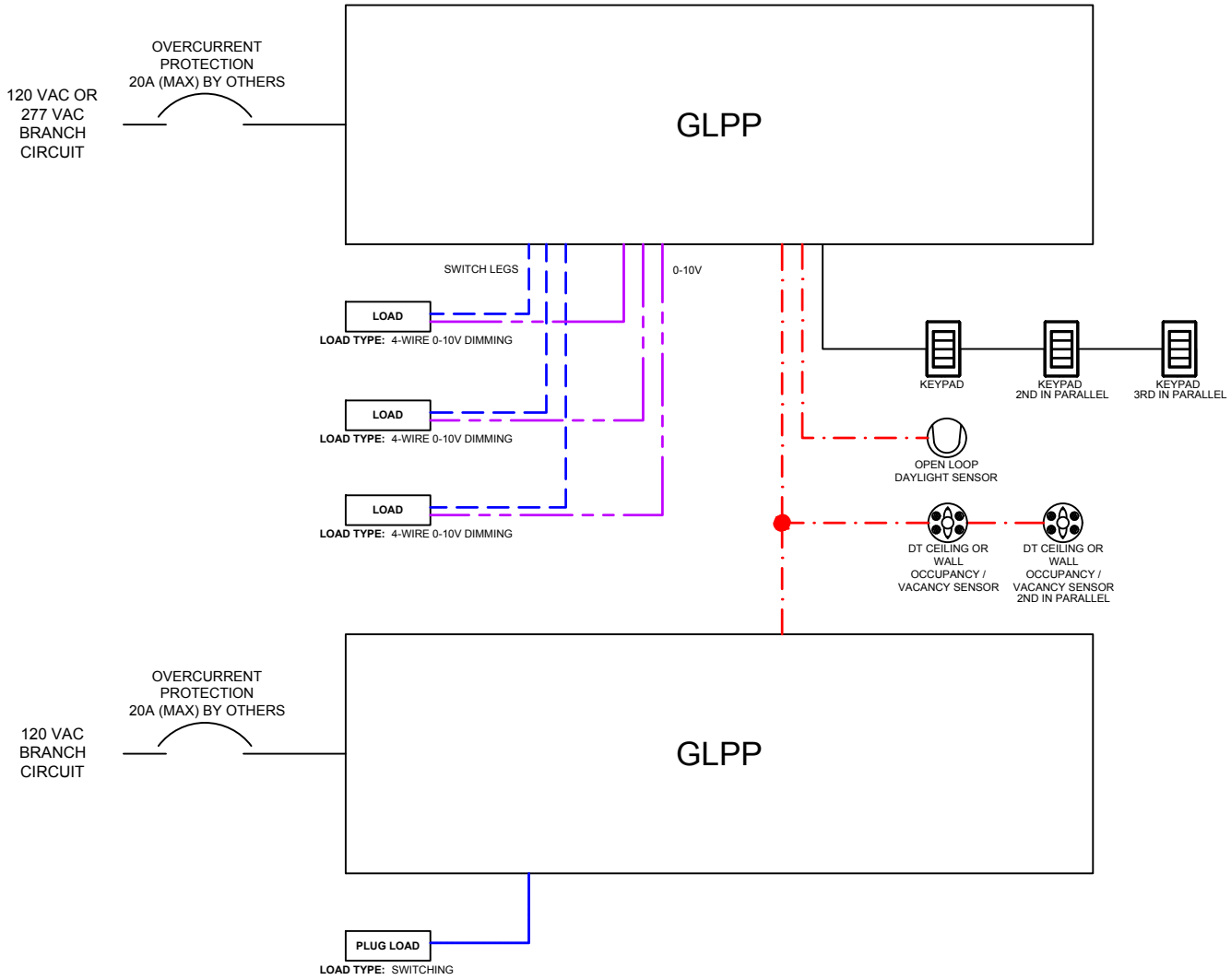
TITLE:
BILL OF MATERIALS

DRAWING:
03.1
REV:
DATE:
DRAWN BY:

ZONE #	ZONE DESCRIPTION	FIXTURE TAG	CIRCUIT #	VOLTAGE	LOAD TYPE	EMERGENCY / LIFE SAFETY	DIM (Y/N)	FIXTURE WATTS	QUANTITY	TOTAL WATTS
EXAMPLE	PENDANTS	A	HZ-1	277 V	0-10V 4-WIRE DIMMED	PARTIAL ZONE	YES	8	4	32
1				277V	0-10V 4-WIRE DIMMED	N/A	YES			
2				277V	0-10V 4-WIRE DIMMED	N/A	YES			
3				277V	0-10V 4-WIRE DIMMED	N/A	YES			
				277 V	SWITCHED	N/A	YES			
				120 V	0-10V 4-WIRE DIMMED	PARTIAL ZONE	NO			
						COMPLETE ZONE				



CABLE TYPES:

(NOT ALL TYPES ARE USED ON ALL PROJECTS)

- CN CN CN — CRESNET (1 PAIR #18 AWG, 1 TWISTED PAIR #22 AWG SHIELDED
- 0-10V, CONTACTS (1 PAIR, SIZE BASED ON VOLTAGE DROP)
- DALI (1 PAIR, TWISTED/SHEILDED RECOMMENDED)
- ENET ENET ENET — ETHERNET (CAT5e OR BETTER ETHERNET)
- SENSOR (CRESNET OR 3-#18)

ALL LOW-VOLTAGE CABLE RUNS ARE CRESNET UNLESS OTHERWISE NOTED.
THE ORDER OF DEVICES ALONG A CRESNET CABLE MAY BE ALTERED AS REQUIRED FOR EASE OF INSTALLATION.

NETWORKED SYSTEMS

IF "NET" IS SHOWN IN THE SPACE LEXICON, INDICATING A NETWORKED CONTROL SYSTEM, PLEASE SEE SHEET 02.7 FOR DETAILED INFORMATION REGARDING CRESNET POWER AND CRESNET CABLE ID BLOCKS. STANDALONE SYSTEMS DO NOT NEED TO REVIEW THIS INFORMATION.

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TITLE:
SCHEMATIC
ONE-LINE DIAGRAM

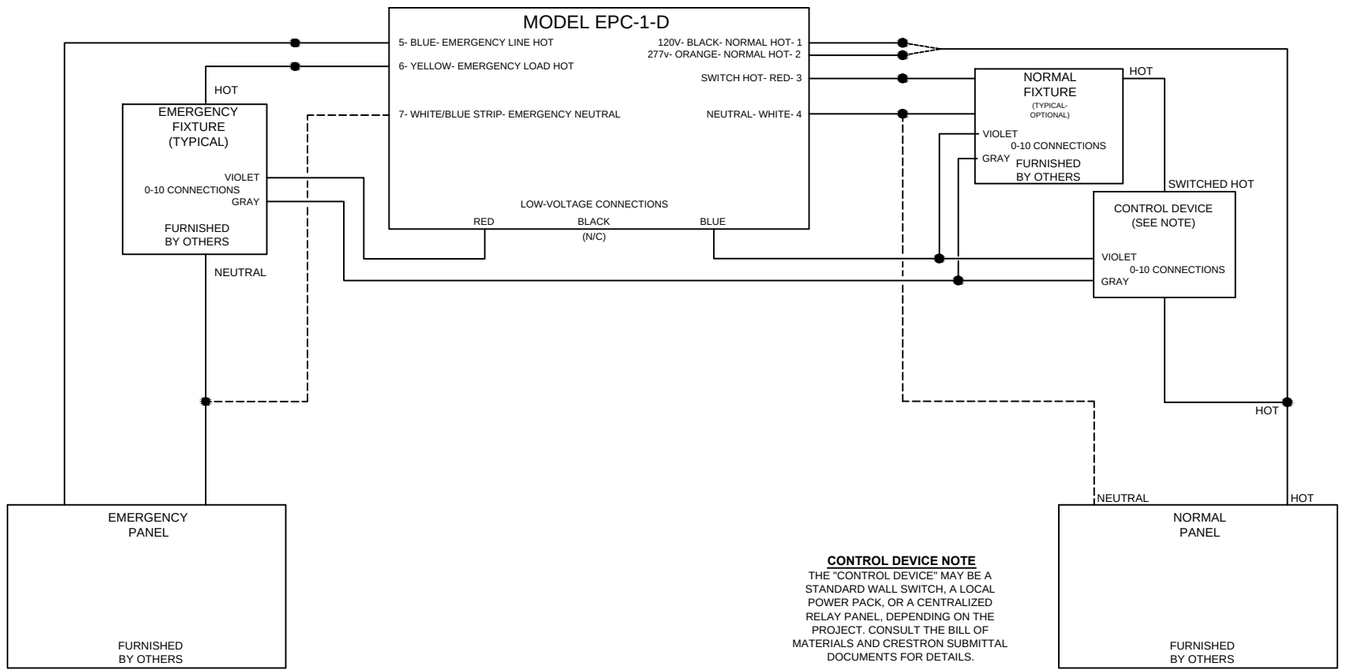
DRAWING:
0401

REV:
DATE:
DRAWN BY:

GLA-EPC-1-D

AUTOMATIC LOAD CONTROL RELAY
WIRING DETAILS & OPERATIONAL NOTES

MODEL EPC-1-D



CONTROL DEVICE NOTE

THE "CONTROL DEVICE" MAY BE A STANDARD WALL SWITCH, A LOCAL POWER PACK, OR A CENTRALIZED RELAY PANEL, DEPENDING ON THE PROJECT. CONSULT THE BILL OF MATERIALS AND CRESTRON SUBMITTAL DOCUMENTS FOR DETAILS.

OPERATIONAL & INSTALLATION INFORMATION

GLA-EPC-1-D

THE GLA-EPC-1-D IS AN AUTOMATIC LOAD CONTROL RELAY WITH UL924 RATING FOR EMERGENCY LIGHTING. THIS SHEET WILL EXPLAIN ITS USE, AND BASICS OF INSTALLATION- PLEASE SEE THE INSTALLATION DOCUMENTATION THAT SHIPS WITH EACH DEVICE FOR MORE COMPLETE INSTALLATION INFORMATION. SHOULD FURTHER INFORMATION BE REQUIRED, PLEASE CONTACT YOUR CRESTRON PROJECT ENGINEER.

FOR THE BALANCE OF THIS SHEET, THE GLA-EPC-1-D WILL BE REFERRED TO SIMPLY AS THE "1D."

OPERATION INFORMATION

THE DEVICE IS INSTALLED WITH CONNECTIONS TO TWO NORMAL-POWER FEEDS: ONE FEED IS A "SENSE" FEED, MONITORING THE OVERALL STATUS OF NORMAL POWER. THE OTHER IS A "SWITCH" FEED- THE SWITCH FEED IS THE OUTPUT OF ANY CONTROL DEVICE SUCH AS A LOCAL WALL SWITCH OR POWER PACK, OR A CENTRALIZED RELAY PANEL. THIS SAME SWITCH FEED WILL USUALLY ALSO FEED NORMAL-POWER FIXTURES.

EMERGENCY POWER IS CONNECTED TO THE DEVICE. IT IS FED THROUGH AN INTERNAL RELAY AND OUT TO ANY EMERGENCY LIGHTING FIXTURES.

SO LONG AS THE NORMAL-SENSE FEED IS ENERGIZED, THE EMERGENCY LIGHTING RELAY WILL BE UNDER THE CONTROL OF THE NORMAL-SWITCH POWER FEED AND THE 0-10V DIMMING LINES. IF THE SWITCH FEED IS OFF, THE RELAY WILL BE HELD OPEN AND THE EMERGENCY LIGHTS WILL BE OFF. IF THE SWITCH FEED IS ENERGIZED, THE RELAY WILL BE CLOSED AND THE EMERGENCY LIGHTS WILL BE ON, MIMICKING THE NORMAL LIGHTS. DIMMING LEVEL WILL MATCH THAT SET BY THE 0-10V CONTROL SOURCE

IF THE NORMAL-SENSE FEED IS DE-ENERGIZED, THE STATUS OF THE NORMAL-SWITCH FEED WILL BE IGNORED AND THE RELAY WILL BE CLOSED ENERGIZING THE EMERGENCY LIGHTS UNTIL SUCH TIME AS THE NORMAL-SENSE FEED IS ENERGIZED AGAIN. WHILE NORMAL-POWER IS OFF, THE 0-10V CONTROL LINES WILL BE OPENED, WHICH DISABLES ANY DIMMING TO SEND THE FIXTURE(S) TO FULL INTENSITY.

AT NO TIME IS NORMAL POWER DELIVERED TO EMERGENCY FIXTURES- THE EMERGENCY CONTROL RELAY SIMPLY MIMICS THE STATE OF THE NORMAL-SWITCH FEED, SWITCHING ON AND OFF EMERGENCY POWER TO THE EMERGENCY LIGHTS.

OPERATIONALLY, THE 1D DEVICE MUST BE PLACED WHERE ITS TESTING BUTTON MAY BE ACCESSED IN ORDER TO REGULARLY TEST THE DEVICE. PRESSING THE TEST BUTTON WILL ENERGIZE THE EMERGENCY LIGHTS CONNECTED TO THE DEVICE SO THAT PROPER FUNCTION MAY BE SEEN. THIS DEVICE ALSO HAS AN AUTOMATIC TEST FUNCTION WHICH DOES NOT REQUIRE MANUAL TESTING, HOWEVER THE LOCAL AUTHORITY HAVING JURISDICTION MAY DESIRE TO TEST THE FUNCTION MANUALLY. THE AUTOMATIC TEST FUNCTION LEAVES THE EMERGENCY FIXTURE ENERGIZED FOR 2.5 SECONDS AFTER THE LIGHTS ARE SWITCHED OFF, SHOWING THAT EMERGENCY OPERATION IS FUNCTIONAL.

INSTALLATION

PLEASE SEE THE INSTRUCTION SHEET THAT SHIPS WITH EACH DEVICE FOR COMPLETE INSTALLATION INSTRUCTIONS.

THE DEVICES MOUNTS IN A STANDARD 4-11/16TH" SQUARE BOX.

THE 1D DEVICE MAY BE USED ON EITHER A 120V OR 277V CIRCUIT- SEE WIRING DETAIL FOR TERMINALS OF DIFFERENT VOLTAGES.

ENSURE THAT ALL TERMINATIONS ARE CORRECT BEFORE ENERGIZING THE UNIT. IMPROPER WIRING MAY RESULT IN INJURY, DEATH, OR IN DAMAGE TO DEVICES THAT WILL NOT BE COVERED UNDER WARRANTY.

CRESTRON Green Light SYSTEM

PART #: GLA-EPC-1-D

DESCRIPTION: WIRING DETAIL FOR EMER LIGHTING CONTROL DEVICE

REVISION: 000

DATE: 5/13/2014

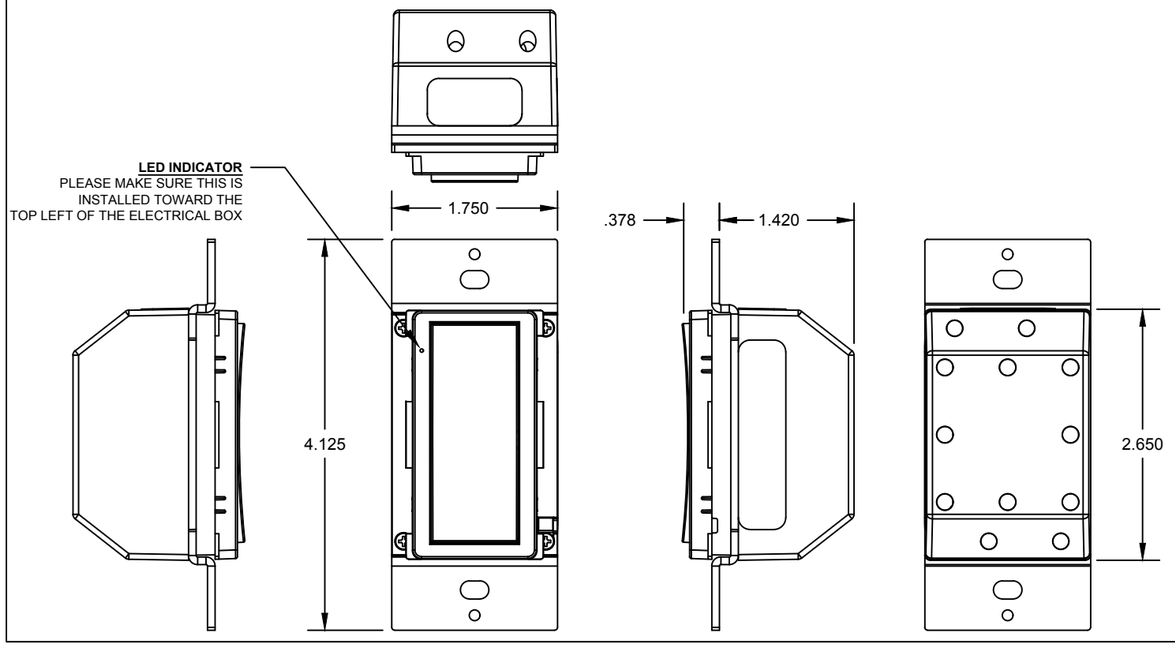
NOTES:

CRESTRON
15 Volvo Drive
Rockleigh NJ 07647
Tel: 888-273-7876
Fax: 201-767-6011
www.crestron.com

PART #:
GLA-EPC-1-D
2 OR 4-WIRE
AUTOMATIC LOAD
CONTROL RELAY

DRAWING:
1 OF 1

PHYSICAL DETAILS

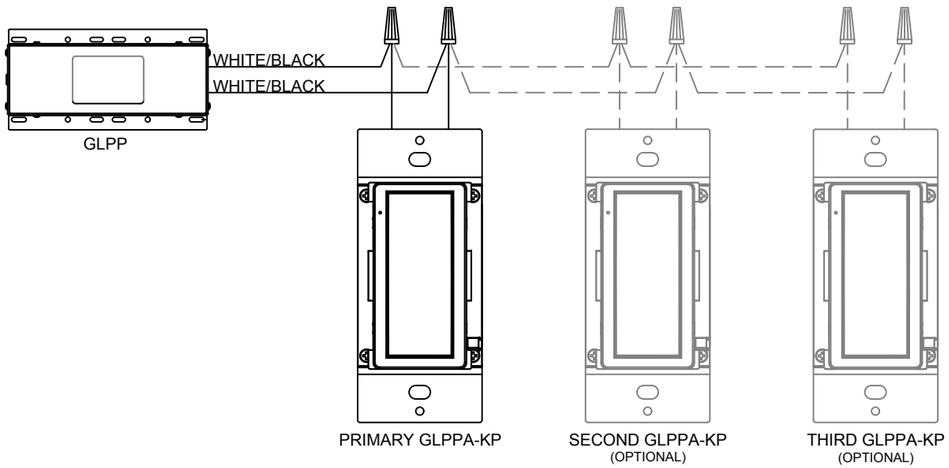


WIRING INSTRUCTIONS:

CAUTION: POSSIBLE EQUIPMENT DAMAGE IF MISWIRED

1. USING NEW OR PRE-EXISTING WIRING, CONNECT THE TWO NON-POLARIZED WHITE WIRES WITH BLACK STRIPES FROM THE GLPP UNIT TO THE TWO WIRES ON THE GLPPA-KP KEYPAD.
2. IF A SECOND OR THIRD GLPPA-KP IS BEING USED IN THE ROOM, WIRE THEM IN PARALLEL.

CAUTION: EXCESS WIRE PINCHED BETWEEN THE KEYPAD AND ELECTRICAL BOX COULD SHORT OUT. MAKE SURE ALL EXCESS WIRE IS COMPLETELY INSIDE THE ELECTRICAL BOX AND NOT BETWEEN THE BOX AND THE KEYPAD.



DESCRIPTION

THE GLPPA-KP IS AN IN WALL KEYPAD FOR CRESTRON GREEN LIGHT® POWER PACK (GLPP) SYSTEMS, USED TO SET AND RECALL PRESETS AND TURN ON AND OFF ALL LOADS CONNECTED TO A GLPP. INSTALLATION IS MADE EASY THANKS TO A 2-WIRE, LOW-VOLTAGE BUS, WHICH CONNECTS THE GLPPA-KP AND GLPP MAIN UNIT. IT IS AVAILABLE IN BLACK, WHITE, AND ALMOND. UP TO THREE GLPPA-KPs CAN BE CONNECTED TO A SINGLE GLPP SYSTEM FOR MULTIPOINT CONTROL IN A ROOM.

FLEXIBLE CONFIGURATION

THE GLPPA-KP SHIPS WITH TWO SETS OF BUTTON CONFIGURATIONS: A ROCKER FOR TURNING ON/OFF AND DIMMING AND A SET OF FOUR PRE-LABELED BUTTONS- **ALL ON**, **ALL OFF**, **SCENE 1**, AND **SCENE 2.** SCENES CAN BE ADJUSTED BY ANY USER DIRECTLY FROM THE KEYPAD.

THE GLPPA-KP4 SHIPS PREASSEMBLED WITH **ZONE 1**, **ZONE 2**, **ZONE 3** AND ALL OFF BUTTONS. IF IT IS USED WITH A 2-CHANNEL GLPP, AN **ALL ON** BUTTON IS INCLUDED AND MAY BE INSTALLED.

GLPPA-KP1, KP2, & KP3 SHIP WITH A ROCKER BUTTON AND ARE DESIGNED AS DEDICATED CONTROLLERS FOR THEIR SPECIFIED ZONES.

EASY INSTALLATION

TWO FLYING LEADS CONNECT THE GLPPA-KP TO THE GLPP SYSTEM VIA A NON-POLARIZED LOW-VOLTAGE BUS. USE A CHOICE OF NEW OR EXISTING HIGH-VOLTAGE (CLASS 1) OR LOW-VOLTAGE (CLASS 2) WIRING FOR QUICK INSTALLATION.

SPECIFICATIONS

POWER REQUIREMENTS:	1 WALL (0.05 AMPS @24Vdc) SUPPLIED BY GLPP
ENVIRONMENTAL:	32°F TO 115°F (0°C TO 45°C) 10% TO 90% RH (NON CONDENSING)
DIMENSIONS:	
HEIGHT:	4 1/8" (105mm)
WIDTH:	1 3/4" (45mm)
DEPTH:	1 3/16" (46mm)
WEIGHT:	3.6 oz. (50g)

GLPPA-KP KEYPAD

CRESTRON Green Light SYSTEM

PART #: GLPPA-KP
DESCRIPTION: KEYPAD FOR GLPP SYSTEMS
REVISION: 001
DATE: 5/18/2016
NOTES:KP1, KP2, KP3, KP4 ADDED

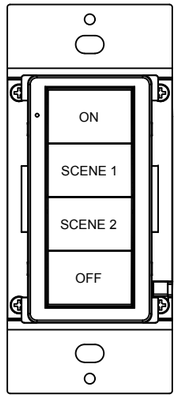
CRESTRON
15 Volvo Drive
Rockleigh NJ 07647
Tel: 888-273-7876
Fax: 201-767-6011
www.crestron.com

PART #:
GLPPA-KP

DRAWING:
1 OF 2

MODEL
GLPPA-KP

PRE-LABELLED BUTTONS

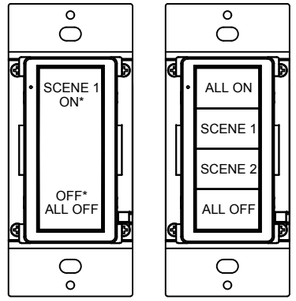


STANDARD LABELS ON BUTTONS FOR 4-BUTTON CONFIGURATION (ROCKER BUTTON IS NOT PRE-LABELED.)

BUTTONS MAY BE ENGRAVED WITH CUSTOM LABELS- PLEASE CHECK WITH YOUR PROJECT MANAGER TO DETERMINE IF THIS SERVICE IS INCLUDED ON YOUR SALES ORDER.

DEFAULT BUTTON FUNCTIONS

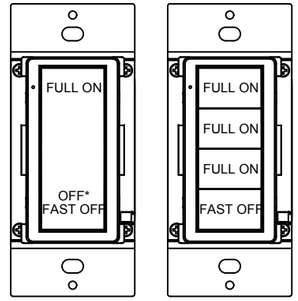
BUTTON TAP



IF USING THE SINGLE ROCKER BUTTON FOR A GLPP-DIM, TAP THE TOP OF THE BUTTON FOR SCENE 1, TAP THE BOTTOM OF THE BUTTON FOR ALL OFF. IF USING THE SINGLE ROCKER BUTTON FOR A GLPP-SW, TAP THE TOP OF THE BUTTON FOR ON AND THE BOTTOM OF THE BUTTON FOR OFF.

FOR A FOUR BUTTON CONFIGURATION USING A GLPP-DIM OR -SW, TAP THE FIRST BUTTON FOR ON, THE SECOND BUTTON FOR SCENE 1, THE THIRD BUTTON FOR SCENE 2, AND THE LAST BUTTON FOR ALL OFF.

BUTTON DOUBLE TAP

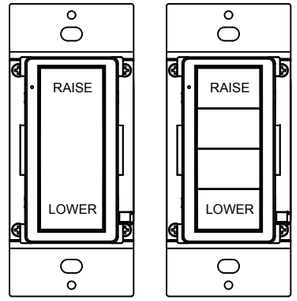


(TAP THE BUTTON TWICE WITHIN 0.5 SECONDS)

IF USING THE SINGLE ROCKER BUTTON FOR A GLPP-DIM, DOUBLE-TAP THE TOP OF THE BUTTON FOR FULL ON, THE BOTTOM OF THE BUTTON FOR FAST OFF. IF USING THE SINGLE ROCKER BUTTON FOR A GLPP-SW, DOUBLE-TAP THE BOTTOM OF THE BUTTON FOR OFF- THE TOP PROVIDES NO FUNCTION.

FOR A FOUR BUTTON CONFIGURATION USING A GLPP-DIM OR -SW, DOUBLE-TAP ANY OF THE FIRST THREE BUTTONS FOR FULL ON AND THE LAST BUTTON FOR FAST OFF.

BUTTON HOLD



(HOLD BUTTON FOR MORE THAN 0.5 SECONDS)

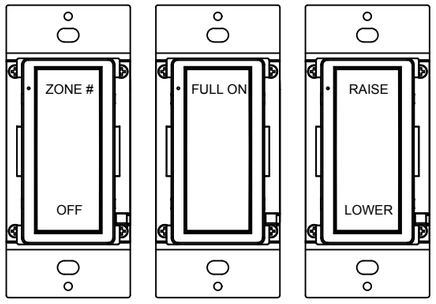
IF USING THE SINGLE ROCKER BUTTON FOR A GLPP-DIM, HOLD THE TOP OF THE BUTTON FOR RAISE, HOLD THE BOTTOM OF THE BUTTON FOR LOWER. FOR A FOUR BUTTON CONFIGURATION WITH A GLPP-DIM, HOLD THE TOP BUTTON FOR RAISE, THE BOTTOM BUTTON FOR LOWER.

BUTTONS ON A GLPP-SW HAVE NO FUNCTION WHEN HELD.

THESE ILLUSTRATIONS SHOW THE DEFAULT FUNCTIONS AVAILABLE FOR EACH PHYSICAL BUTTON CONFIGURATION AND TAP/HOLD ACTIVATION SEQUENCE. TAP, DOUBLE-TAP, AND HOLD ACTIVATE VARIOUS SCENES DEPENDING ON THE GLPP SETTINGS. TO DETERMINE SCENE SETTINGS OR HOW TO ACHIEVE CUSTOM FUNCTIONS, REFER TO THE GLPP INSTALLATION GUIDE AND OTHER SYSTEM PROGRAMMING GUIDES, AVAILABLE AT CRESTRON.COM.

**APPLICABLE TO GLPP-SWCN VERSIONS ONLY*

DEFAULT BUTTON FUNCTIONS: KP1, KP2, KP3



TAP DOUBLE-TAP HOLD

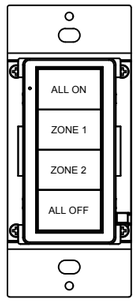
(LABELS ABOVE ARE NOT ENGRAVED- ROCKER IS BLANK)

TAP
TAP THE TOP OF THE BUTTON TO RECALL SCENE 1 FOR THE CHANNEL (ENABLES DAYLIGHTING FOR OPEN LOOP ONLY); TAP THE BOTTOM OF THE BUTTON TO TURN THE CHANNEL OFF.

DOUBLE-TAP
DOUBLE-TAP THE TOP OF THE BUTTON TO TURN THE CHANNEL FULL ON (DISABLES DAYLIGHTING). DOUBLE-TAP THE BOTTOM OF THE BUTTON HAS NO ACTION.

HOLD
HOLD THE TOP OF THE BUTTON TO RAISE THE CHANNEL; HOLD THE BOTTOM OF THE BUTTON TO LOWER THE CHANNEL.

KP4 FUNCTIONS- 2 CHANNEL GLPP

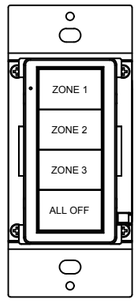


ALL ON Button
TAP TO RECALL SCENE 1 ON CHANNEL 1 AND CHANNEL 2 (DAYLIGHTING ENABLED). HOLD TO RAISE ALL CHANNELS.

ZONE 1 and ZONE 2 Buttons
TAP THE ZONE 1 BUTTON TO TOGGLE CHANNEL 1. TAP THE ZONE 2 BUTTON TO TOGGLE CHANNEL 2. LIGHTS ARE TURNED ON TO SCENE 1 LEVELS WITH DAYLIGHTING ENABLED. HOLD BUTTON TO CYCLE-DIM THE CHANNEL.

ALL OFF Button
TAP TO TURN ALL CHANNELS OFF. HOLD TO LOWER ALL CHANNELS.

KP4 FUNCTIONS- 3 CHANNEL GLPP



ZONE 1, ZONE 2 and ZONE 3 Buttons
TAP THE ZONE 1 BUTTON TO TOGGLE CHANNEL 1. TAP THE ZONE 2 BUTTON TO TOGGLE CHANNEL 2. TAP THE ZONE 3 BUTTON TO TOGGLE CHANNEL 3. LIGHTS ARE TURNED ON TO SCENE 1 LEVELS WITH DAYLIGHTING ENABLED. HOLD BUTTON TO CYCLE-DIM THE CHANNEL.

ALL OFF Button
TAP TO TURN ALL CHANNELS OFF. HOLD TO LOWER ALL CHANNELS.

MODELS
GLPPA-KP1
GLPPA-KP2
GLPPA-KP3
GLPPA-KP4

GLPPA-KP KEYPAD

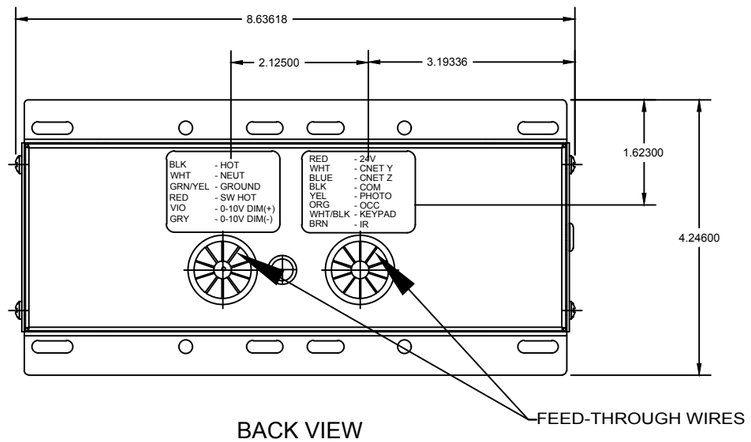
CRESTRON Green Light SYSTEM

PART #: GLPPA-KP
DESCRIPTION: KEYPAD FOR GLPP SYSTEMS
REVISION: 001
DATE: 5/18/2016
NOTES:KP1, KP2, KP3, KP4 ADDED

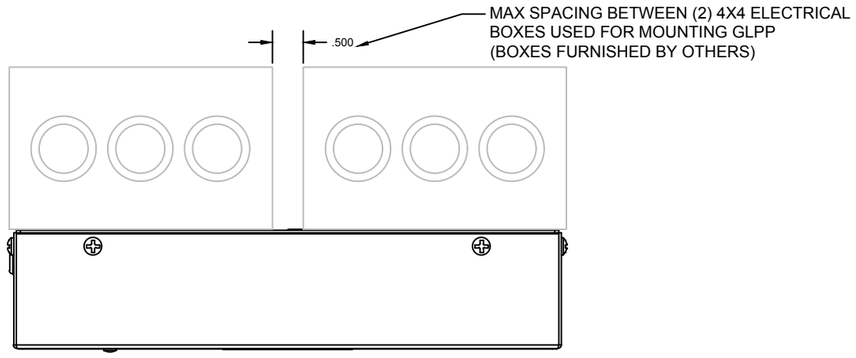
CRESTRON
15 Volvo Drive
Rockleigh NJ 07647
Tel: 888-273-7876
Fax: 201-767-6011
www.crestron.com

PART #:
GLPPA-KP

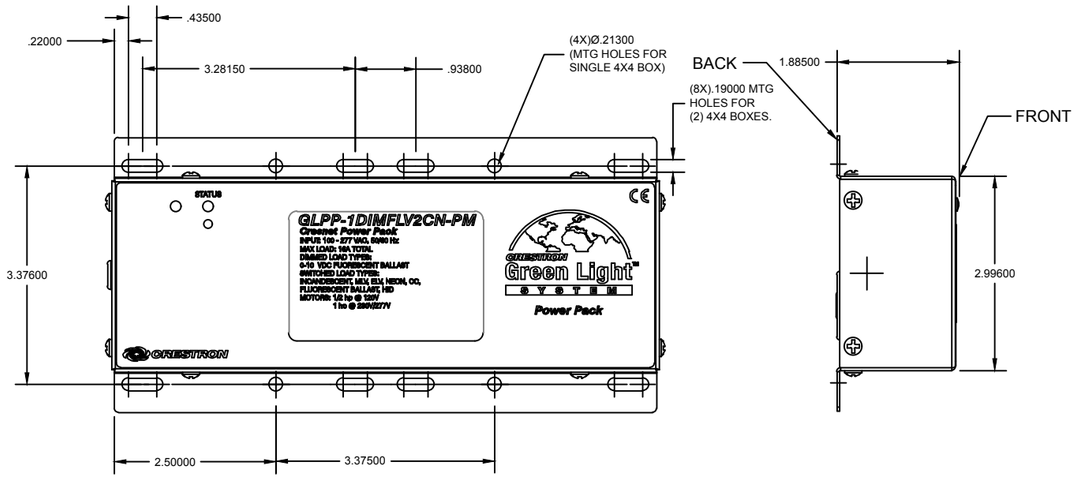
DRAWING:
2 OF 2



BACK VIEW
(ROTATED 180°)



SIDE VIEW



FRONT VIEW

END VIEW

DESCRIPTION

THE CRESTRON GREEN LIGHT POWER PACK IS A STANDALONE ROOM CONTROLLER DESIGNED TO COMMUNICATE WITH PHOTOCELLS, OCCUPANCY SENSORS, AND CONTROL STATIONS TO AUTOMATICALLY CONTROL LIGHTING IN ANY ROOM. THE ENTIRE POWER PACK FAMILY PROVIDES COST-EFFECTIVE AND POWERFUL LIGHTING CONTROL FOR CLASSROOMS, SMALL OFFICES, AND OPEN-PLAN OFFICES. IDEAL FOR NEW CONSTRUCTION AS WELL AS RETROFITTING EXISTING BUILDINGS, POWER PACKS ARE IDEAL TO INSTALL AND COMMISSION QUICKLY AND EASILY. ADDITIONALLY, THE GREEN LIGHT POWER PACK CAN BE CONNECTED TO A CENTRAL CONTROL SYSTEM, ENABLING IT TO BECOME AN INTEGRAL PART OF THE BUILDING ENERGY MANAGEMENT SYSTEM.

THE GLPP-DIMFLVCN-PM SERIES IS AVAILABLE IN THE FOLLOWING MODELS:

GLPP-DIMFLVCN-PM: ONE INPUT CIRCUIT, 1-CHANNEL 0-10V DIMMER, CRESNET CONTROL, AND INTEGRATED POWER MANAGEMENT.

GLPP-1DIMFLV2CN-PM: ONE INPUT CIRCUIT, 2-CHANNEL 0-10V DIMMERS, CRESNET CONTROL, AND INTEGRATED POWER MANAGEMENT.

GLPP-1DIMFLV3CN-PM: ONE INPUT CIRCUIT, 3-CHANNEL 0-10V DIMMERS, CRESNET CONTROL, AND INTEGRATED POWER MANAGEMENT.

AVAILABLE ACCESSORIES:

GLPPA-KP MASTER SCENE KEYPAD (ALL KEYPADS AVAILABLE IN GLOSS WHITE, GLOSS ALMOND, OR GLOSS BLACK)

GLPPA-KP1, -KP2, -KP3 POWER PACK KEYPAD FOR DEDICATED CONTROL OF ONE ZONE ONLY

GLPPA-KP4 ZONE MASTER KEYPAD FOR TOGGLE CONTROL OF UP TO THREE ZONES

GLPPA-IRGW-F FLUSH MOUNT IR GATEWAY FOR GLPP

GLPPA-REMOTE-USER HANDHELD IR REMOTE FOR WIRELESS CONTROL OF LIGHTING LEVELS AND SCENES

GLPPA-REMOTE-PROG HANDHELD IR REMOTE FORE COMMISSIONING OF THE GLPP

SPECIFICATIONS

SPECIFICATION	DETAILS
POWER REQUIREMENTS	100-277VAC, 50-60Hz 2.5W @ 24VDC AVAILABLE SENSOR POWER (SUFFICIENT FOR MULTIPLE SENSORS)
LOAD TYPES DIMMER SWITCHED	 0-10V FLUORESCENT BALLAST (4-WIRE) 0-10V LED DRIVERS; 60mA MAX CURRENT SINK FLUORESCENT BALLAST, INCANDESCENT, MAGNETIC LOW VOLTAGE, ELECTRONIC LOW VOLTAGE, NEON/COLD CATHODE, HID
LOAD RATINGS DIM CHANNELS PER UNIT RELAY LIFETIME	 1, 2, OR 3 DIMMED (0-10V) LOADS, DEPENDING ON MODEL 16 AMPS @ 100-277VAC, 50-60HZ (20 AMPS DERATED TO 80%) 1,000,000 CYCLES
OPERATING TEMPERATURE AND HUMIDITY	32°F TO 104°F (0°C TO 40°C) 10 TO 90% RELATIVE HUMIDITY (NON-CONDENSING)
DIMENSIONS AND WEIGHT HEIGHT WIDTH DEPTH WEIGHT	 4.25 IN (108mm) 8.63 IN (219mm) 2 IN (51mm) 2 LB (907g)
CONTROLS & INDICATORS POWER SETUP SETUP IR RECEIVER	 (1) GREEN LED; INDICATES LINE VOLTAGE SUPPLIED TO UNIT (1) RED LED; INDICATES THE UNIT IS IN SETUP MODE (1) RECESSED PUSH BUTTON; TOGGLES SETUP MODE (1) IR WINDOW FOR USE WITH COMMISSIONING REMOTE CONTROL
CONNECTIONS (CLASS 1) LINE IN (100-277VAC) NEUTRAL SWITCHED HOT GROUND 0-10V DIM (+) 0-10V DIM (-)	 (1) 14 AWG CLASS 1 FLYING LEAD, BLACK (1) 14 AWG CLASS 1 FLYING LEAD, WHITE (1, 2, 0R 3) 14 AWG CLASS 1 FLYING LEAD(S), RED, LABELED WITH CHANNEL NUMBER (1) 14 AWG CLASS 1 FLYING LEAD, GREEN W/YELLOW STRIPE (1, 2, OR 3) 18 AWG CLASS 1 FLYING LEAD, VIOLET, LABELED WITH CHANNEL NUMBER (1) 18 AWG CLASS 1 FLYING LEAD, GRAY
CONNECTIONS (CLASS 2) COMMON SENSOR POWER (24VDC) OCC SENSOR SIGNAL[1] PHOTOCELL SIGNAL[1] IR KEYPADS[2] CRESNET DATA Z CRESNET DATA Y	 (1) 18 AWG CLASS 2 FLYING LEAD, BLACK, COMMON FOR SENSORS, IR, AND CRESNET (1) 18 AWG CLASS 2 FLYING LEAD, RED (1) 18 AWG CLASS 2 FLYING LEAD, ORANGE (1) 18 AWG CLASS 2 FLYING LEAD, YELLOW (1) 18 AWG CLASS 2 FLYING LEAD, BROWN, FOR USE WITH (OPTIONAL) EXTERNAL IR RECEIVER (2) 18 AWG CLASS 2 FLYING LEADS, WHITE W/BLACK STRIPE; SUPPORTS UP TO TWO (2) GLPPA-KP POWER PACK KEYPADS (1) 18 AWG CLASS 2 FLYING LEAD, BLUE (1) 18 AWG CLASS 2 FLYING LEAD, WHITE
ENCLOSURE	20-GAUGE GALVANIZED STEEL ENCLOSURE; DESIGNED FOR MOUNTING TO TWO (2) ADJACENT STANDARD 4" SQUARE ELECTRICAL JUNCTION BOXES; 3 CHANNEL VERSIONS REQUIRE A BOX DEPTH OF 2.125 IN (5.4 CM)[3]
ELECTRICAL REGULATORY CERTIFICATIONS	CERTIFIED TO UL916 (ENERGY MANAGEMENT EQUIPMENT) RELAYS TESTED AND CERTIFIED FOR ELECTRONIC BALLASTS ACCORDING TO UL508, SECTION 41 (ENDURANCE TEST) AND SECTION 61C (ELECTRONIC BALLASTS), IEC60669-2-1, SECTION 19.102 (CONTACT MECHANISMS INCORPORATED IN ELECTRONIC SWITCHES, INTENDED FOR FLUORESCENT LAMP CIRCUITS OR OTHER CAPACITIVE LOADS). CE UL FC

1. CRESTRON PHOTOCELL MODELS INCLUDE GLS-LOL, GLS-LCL, AND GLS-LEXT. CRESTRON OCCUPANCY SENSOR MODELS INCLUDE GLS-ODT-NS AND GLS-OIR-NS.
2. TWO DEDICATED WIRES ARE REQUIRED FROM THE KEYPAD LOCATION TO THE GLPP. ONLY KEYPADS MODEL GLPPA-KP MAY CONNECT TO THESE WIRES; OTHER CRESTRON KEYPADS MAY ONLY BE USED WITH GLPP IN SYSTEMS WITH A CENTRAL PROCESSOR.
3. SOME MODELS MAY NEED A BOX EXTENSION TO MEET CODE REQUIREMENTS.

CRESTRON Green Light SYSTEM

PART #: GLPP-DIMFLVCN-PM
DESCRIPTION: GLPP, DIMMING VERSION, 1-3 CHANNELS
DATE: 5/18/2016
REVISION: 007
NOTES:

CRESTRON
15 Volvo Drive
Rockleigh NJ 07647
Tel: 888-273-7876
Fax: 201-767-6011
www.crestron.com

PART #:
GLPP-DIMFLVCN-PM
-1DIMFLV2CN-PM
-1DIMFLV3CN-PM

DRAWING:
1 OF 2

WIRING NOTES:

CAUTION: POSSIBLE EQUIPMENT DAMAGE IF MISWIRED

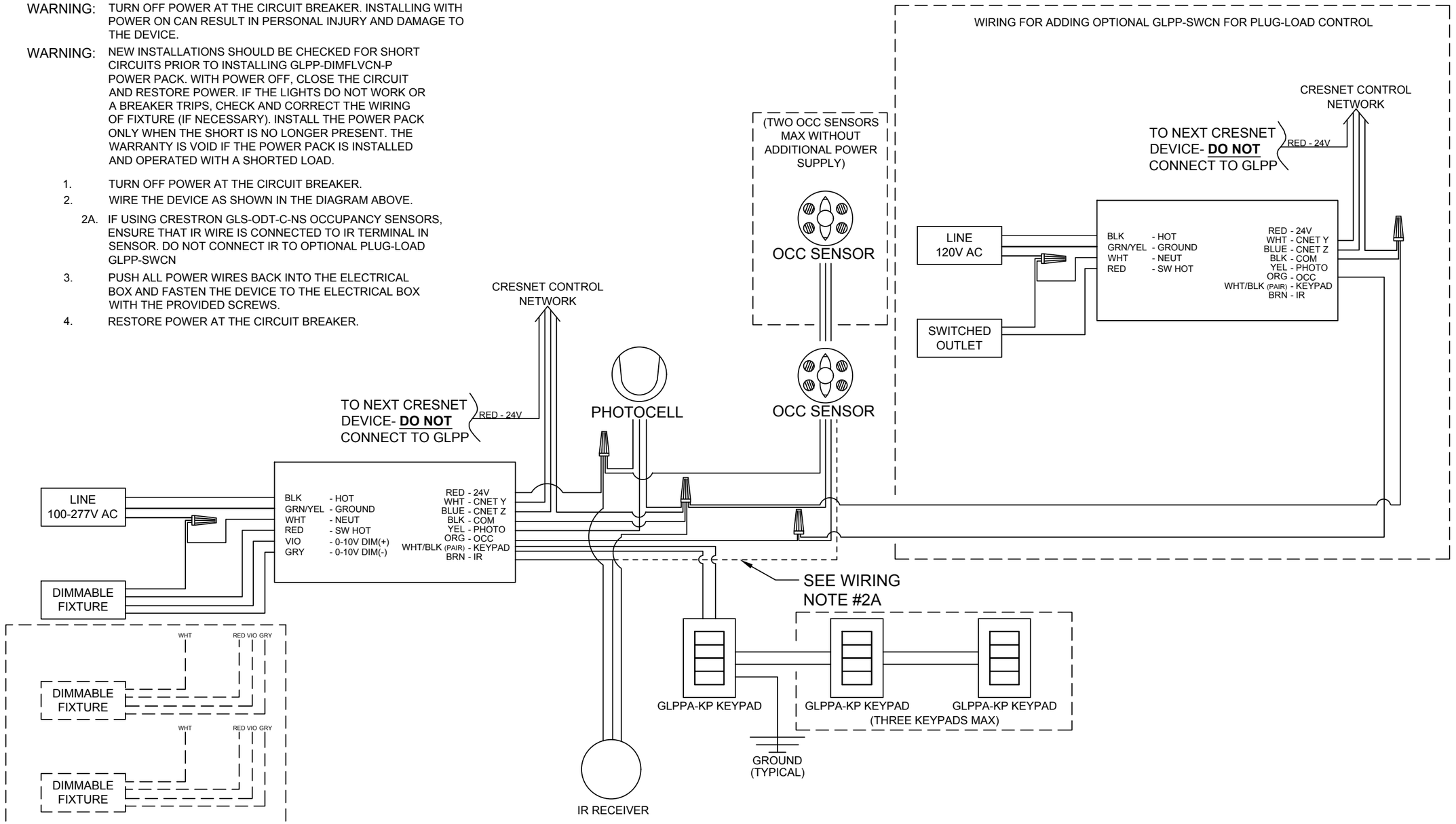
WARNING: TURN OFF POWER AT THE CIRCUIT BREAKER. INSTALLING WITH POWER ON CAN RESULT IN PERSONAL INJURY AND DAMAGE TO THE DEVICE.

WARNING: NEW INSTALLATIONS SHOULD BE CHECKED FOR SHORT CIRCUITS PRIOR TO INSTALLING GLPP-DIMFLVCN-P POWER PACK. WITH POWER OFF, CLOSE THE CIRCUIT AND RESTORE POWER. IF THE LIGHTS DO NOT WORK OR A BREAKER TRIPS, CHECK AND CORRECT THE WIRING OF FIXTURE (IF NECESSARY). INSTALL THE POWER PACK ONLY WHEN THE SHORT IS NO LONGER PRESENT. THE WARRANTY IS VOID IF THE POWER PACK IS INSTALLED AND OPERATED WITH A SHORTED LOAD.

1. TURN OFF POWER AT THE CIRCUIT BREAKER.
2. WIRE THE DEVICE AS SHOWN IN THE DIAGRAM ABOVE.

2A. IF USING CRESTRON GLS-ODT-C-NS OCCUPANCY SENSORS, ENSURE THAT IR WIRE IS CONNECTED TO IR TERMINAL IN SENSOR. DO NOT CONNECT IR TO OPTIONAL PLUG-LOAD GLPP-SWCN

3. PUSH ALL POWER WIRES BACK INTO THE ELECTRICAL BOX AND FASTEN THE DEVICE TO THE ELECTRICAL BOX WITH THE PROVIDED SCREWS.
4. RESTORE POWER AT THE CIRCUIT BREAKER.



NOTE: NOT ALL CONNECTIONS/DEVICES WILL BE UTILIZED ON ALL PROJECTS. CONTACT YOUR CRESTRON PROJECT MANAGER FOR INFORMATION SPECIFIC TO YOUR PROJECT.

PART #: GLPP-DIMFLVCN-PM

DESCRIPTION: GLPP, DIMMING VERSION, 1-3 CHANNELS

REVISION: 007

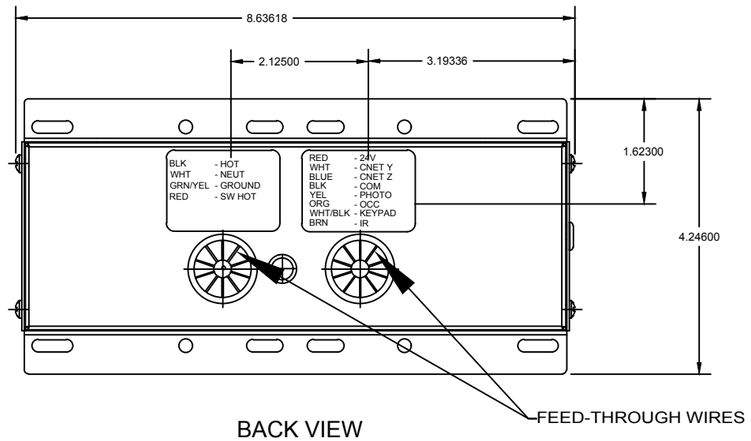
DATE: 5/18/2016

NOTES:

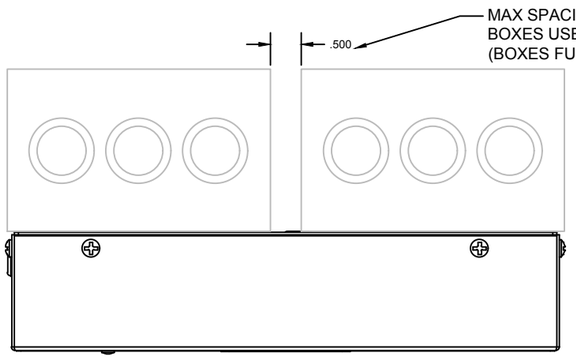
CRESTRON
15 Volvo Drive
Rockleigh NJ 07647
Tel: 888-273-7876
Fax: 201-767-6011
www.crestron.com

PART #:
GLPP-DIMFLVCN-PM
-1DIMFLV2CN-PM
-1DIMFLV3CN-PM

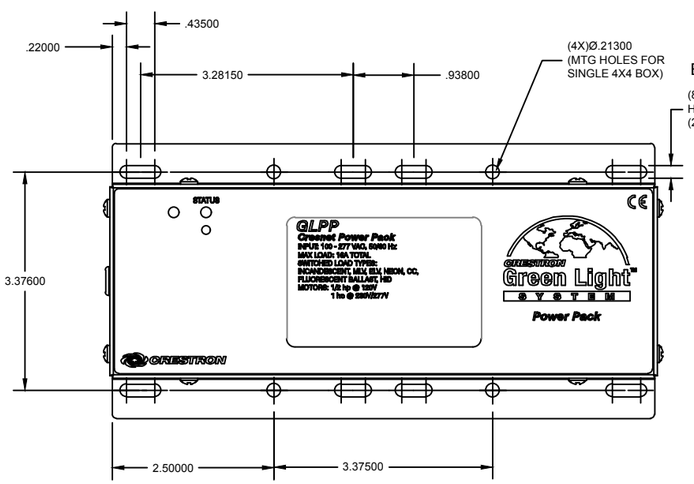
DRAWING:
2 OF 2



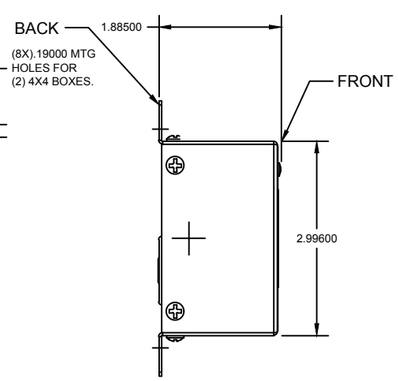
BACK VIEW
(ROTATED 180°)



SIDE VIEW



FRONT VIEW



END VIEW

DESCRIPTION

THE CRESTRON GREEN LIGHT POWER PACK IS A STANDALONE ROOM CONTROLLER DESIGNED TO COMMUNICATE WITH PHOTOCELLS, OCCUPANCY SENSORS, AND CONTROL STATIONS TO AUTOMATICALLY CONTROL LIGHTING IN ANY ROOM. THE ENTIRE POWER PACK FAMILY PROVIDES COST-EFFECTIVE AND POWERFUL LIGHTING CONTROL FOR CLASSROOMS, SMALL OFFICES, AND OPEN-PLAN OFFICES. IDEAL FOR NEW CONSTRUCTION AS WELL AS RETROFITTING EXISTING BUILDINGS, POWER PACKS ARE IDEAL TO INSTALL AND COMMISSION QUICKLY AND EASILY. ADDITIONALLY, THE GREEN LIGHT POWER PACK CAN BE CONNECTED TO A CENTRAL CONTROL SYSTEM, ENABLING IT TO BECOME AN INTEGRAL PART OF THE BUILDING ENERGY MANAGEMENT SYSTEM.

THE GLPP-SWCN SERIES IS AVAILABLE IN THE FOLLOWING MODELS:

GLPP-SWCN: ONE INPUT CIRCUIT, 1-CHANNEL, CRESNET CONTROL, AND INTEGRATED POWER MANAGEMENT.

GLPP-1SW2CN: ONE INPUT CIRCUIT, 2-CHANNELS, CRESNET CONTROL, AND INTEGRATED POWER MANAGEMENT.

GLPP-1SW3CN: ONE INPUT CIRCUIT, 3-CHANNELS, CRESNET CONTROL, AND INTEGRATED POWER MANAGEMENT.

AVAILABLE ACCESSORIES:

GLPPA-KP MASTER SCENE KEYPAD (ALL KEYPADS AVAILABLE IN GLOSS WHITE, GLOSS ALMOND, OR GLOSS BLACK)

GLPPA-KP1, -KP2, -KP3 POWER PACK KEYPAD FOR DEDICATED CONTROL OF ONE ZONE ONLY

GLPPA-KP4 ZONE MASTER KEYPAD FOR TOGGLE CONTROL OF UP TO THREE ZONES

GLPPA-IRGW-F FLUSH MOUNT IR GATEWAY FOR GLPP

GLPPA-REMOTE-USER HANDHELD IR REMOTE FOR WIRELESS CONTROL OF LIGHTING LEVELS AND SCENES

GLPPA-REMOTE-PROG HANDHELD IR REMOTE FORE COMMISSIONING OF THE GLPP

SPECIFICATIONS

SPECIFICATION	DETAILS
POWER REQUIREMENTS	100-277VAC, 50-60Hz 2.5W @ 24VDC AVAILABLE SENSOR POWER (SUFFICIENT FOR MULTIPLE SENSORS)
LOAD TYPES SWITCHED	 FLUORESCENT BALLAST, INCANDESCENT, MAGNETIC LOW VOLTAGE, ELECTRONIC LOW VOLTAGE, NEON/COLD CATHODE, HID
LOAD RATINGS SWITCH CHANNELS PER UNIT RELAY LIFETIME	 1, 2, OR 3 LOADS, DEPENDING ON MODEL 16 AMPS @ 100-277VAC, 50-60HZ (20 AMPS DERATED TO 80%) 1,000,000 CYCLES
OPERATING TEMPERATURE AND HUMIDITY	32°F TO 104°F (0°C TO 40°C) 10 TO 90% RELATIVE HUMIDITY (NON-CONDENSING)
DIMENSIONS AND WEIGHT HEIGHT WIDTH DEPTH WEIGHT	 4.25 IN (108mm) 8.63 IN (219mm) 2 IN (51mm) 2 LB (907g)
CONTROLS & INDICATORS POWER SETUP SETUP IR RECEIVER	 (1) GREEN LED; INDICATES LINE VOLTAGE SUPPLIED TO UNIT (1) RED LED; INDICATES THE UNIT IS IN SETUP MODE (1) RECESSED PUSH BUTTON; TOGGLES SETUP MODE (1) IR WINDOW FOR USE WITH COMMISSIONING REMOTE CONTROL
CONNECTIONS (CLASS 1) LINE IN (100-277VAC) NEUTRAL SWITCHED HOT GROUND	 (1) 14 AWG CLASS 1 FLYING LEAD, BLACK (1) 14 AWG CLASS 1 FLYING LEAD, WHITE (1, 2, OR 3) 14 AWG CLASS 1 FLYING LEAD(S), RED, LABELED WITH CHANNEL NUMBER (1) 14 AWG CLASS 1 FLYING LEAD, GREEN W/YELLOW STRIPE
CONNECTIONS (CLASS 2) COMMON SENSOR POWER (24VDC) OCC SENSOR SIGNAL[1] PHOTOCELL SIGNAL[1] IR KEYPADS[2] CRESNET DATA Z CRESNET DATA Y	 (1) 18 AWG CLASS 2 FLYING LEAD, BLACK, COMMON FOR SENSORS, IR, AND CRESNET (1) 18 AWG CLASS 2 FLYING LEAD, RED (1) 18 AWG CLASS 2 FLYING LEAD, ORANGE (1) 18 AWG CLASS 2 FLYING LEAD, YELLOW (1) 18 AWG CLASS 2 FLYING LEAD, BROWN, FOR USE WITH (OPTIONAL) EXTERNAL IR RECEIVER (2) 18 AWG CLASS 2 FLYING LEADS, WHITE W/BLACK STRIPE; SUPPORTS UP TO TWO (2) GLPPA-KP POWER PACK KEYPADS (1) 18 AWG CLASS 2 FLYING LEAD, BLUE (1) 18 AWG CLASS 2 FLYING LEAD, WHITE
ENCLOSURE	20-GAUGE GALVANIZED STEEL ENCLOSURE; DESIGNED FOR MOUNTING TO TWO (2) ADJACENT STANDARD 4" SQUARE ELECTRICAL JUNCTION BOXES; 3 CHANNEL VERSIONS REQUIRE A BOX DEPTH OF 2.125 IN (5.4 CM)[3]
ELECTRICAL REGULATORY CERTIFICATIONS	CERTIFIED TO UL916 (ENERGY MANAGEMENT EQUIPMENT) RELAYS TESTED AND CERTIFIED FOR ELECTRONIC BALLASTS ACCORDING TO UL508, SECTION 41 (ENDURANCE TEST) AND SECTION 61C (ELECTRONIC BALLASTS), IEC60669-2-1, SECTION 19.102 (CONTACT MECHANISMS INCORPORATED IN ELECTRONIC SWITCHES, INTENDED FOR FLUORESCENT LAMP CIRCUITS OR OTHER CAPACITIVE LOADS). CE UL FC

1. CRESTRON PHOTOCELL MODELS INCLUDE GLS-LOL, GLS-LCL, AND GLS-LEXT. CRESTRON OCCUPANCY SENSOR MODELS INCLUDE GLS-ODT-NS AND GLS-OIR-NS.
2. TWO DEDICATED WIRES ARE REQUIRED FROM THE KEYPAD LOCATION TO THE GLPP. ONLY KEYPADS MODEL GLPPA-KP MAY CONNECT TO THESE WIRES; OTHER CRESTRON KEYPADS MAY ONLY BE USED WITH GLPP IN SYSTEMS WITH A CENTRAL PROCESSOR.
3. SOME MODELS MAY NEED A BOX EXTENSION TO MEET CODE REQUIREMENTS.

CRESTRON Green Light SYSTEM

PART #: GLPP-SWCN
DESCRIPTION: GLPP, SWITCHING VERSION, 1-3 CHANNELS
REVISION: 007
DATE: 5/18/2016
NOTES:

CRESTRON
15 Volvo Drive
Rockleigh NJ 07647
Tel: 888-273-7876
Fax: 201-767-6011
www.crestron.com

PART #:
GLPP-SWCN
-1SW2CN
-1SW3CN

DRAWING:
1 OF 2

WIRING NOTES:

CAUTION: POSSIBLE EQUIPMENT DAMAGE IF MISWIRED

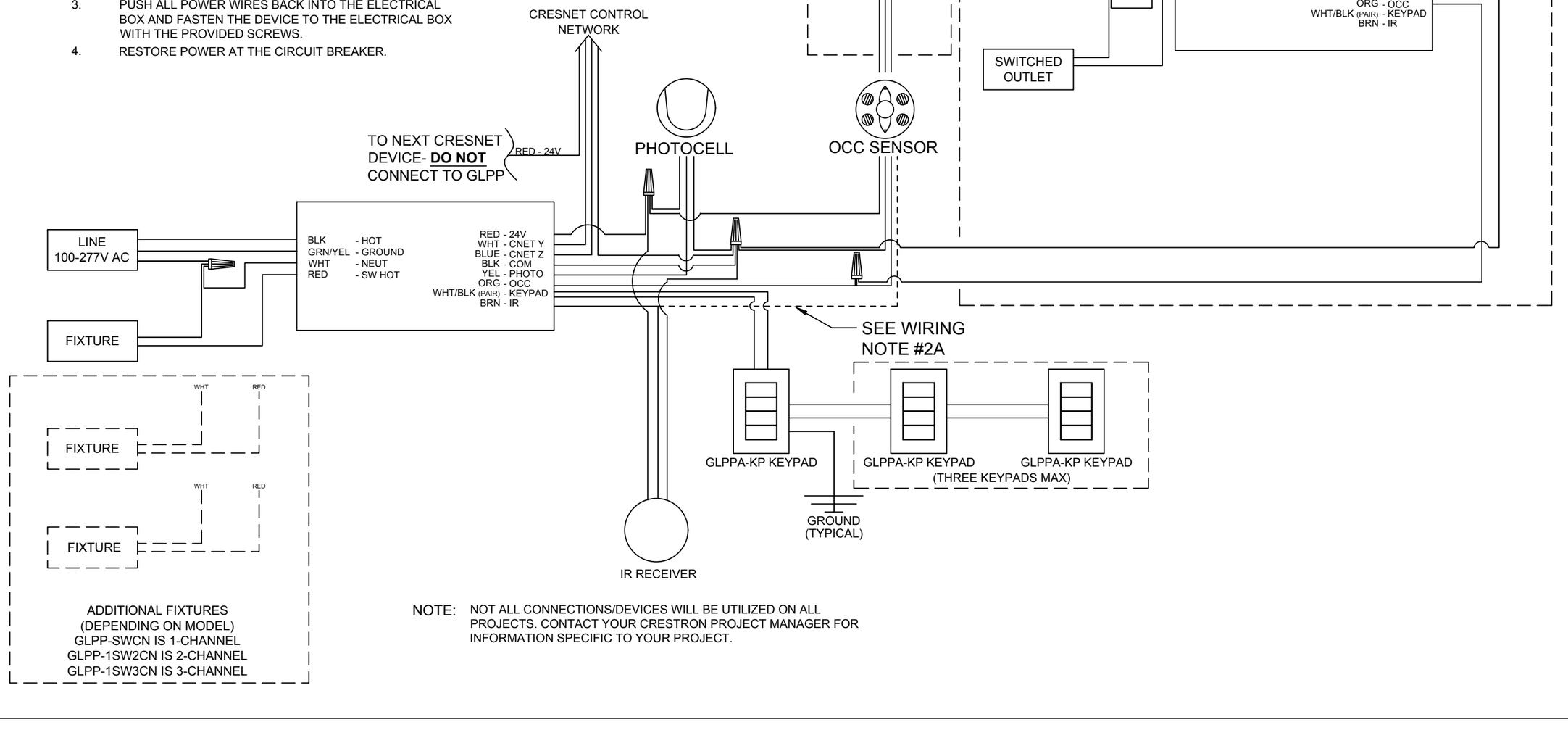
WARNING: TURN OFF POWER AT THE CIRCUIT BREAKER. INSTALLING WITH POWER ON CAN RESULT IN PERSONAL INJURY AND DAMAGE TO THE DEVICE.

WARNING: NEW INSTALLATIONS SHOULD BE CHECKED FOR SHORT CIRCUITS PRIOR TO INSTALLING GLPP-DIMFLVCN-P POWER PACK. WITH POWER OFF, CLOSE THE CIRCUIT AND RESTORE POWER. IF THE LIGHTS DO NOT WORK OR A BREAKER TRIPS, CHECK AND CORRECT THE WIRING OF FIXTURE (IF NECESSARY). INSTALL THE POWER PACK ONLY WHEN THE SHORT IS NO LONGER PRESENT. THE WARRANTY IS VOID IF THE POWER PACK IS INSTALLED AND OPERATED WITH A SHORTED LOAD.

1. TURN OFF POWER AT THE CIRCUIT BREAKER.
2. WIRE THE DEVICE AS SHOWN IN THE DIAGRAM ABOVE.

2A. IF USING CRESTRON GLS-ODT-C-NS OCCUPANCY SENSORS, ENSURE THAT IR WIRE IS CONNECTED TO IR TERMINAL IN SENSOR. DO NOT CONNECT IR TO OPTIONAL PLUG-LOAD GLPP-SWCN

3. PUSH ALL POWER WIRES BACK INTO THE ELECTRICAL BOX AND FASTEN THE DEVICE TO THE ELECTRICAL BOX WITH THE PROVIDED SCREWS.
4. RESTORE POWER AT THE CIRCUIT BREAKER.



NOTE: NOT ALL CONNECTIONS/DEVICES WILL BE UTILIZED ON ALL PROJECTS. CONTACT YOUR CRESTRON PROJECT MANAGER FOR INFORMATION SPECIFIC TO YOUR PROJECT.

PART #: GLPP-SWCN

DESCRIPTION: GLPP, SWITCHING VERSION, 1-3 CHANNELS

DATE: 5/18/2016

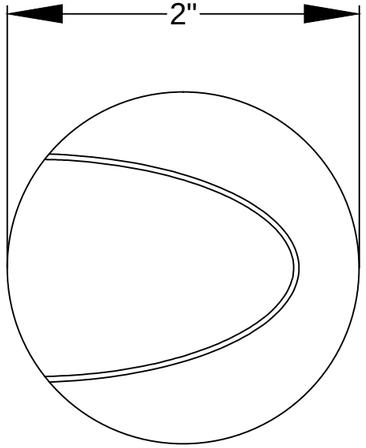
REVISION: 007

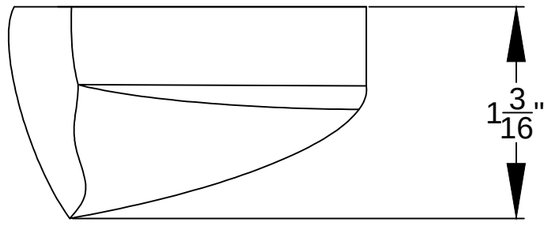
NOTES:

CRESTRON
15 Volvo Drive
Rockleigh NJ 07647
Tel: 888-273-7876
Fax: 201-767-6011
www.crestron.com

PART #:
GLPP-SWCN
-1SW2CN
-1SW3CN

DRAWING:
2 OF 2





PHYSICAL DETAILS

FEATURES & INSTALLATION BASICS

AN INSTALLATION GUIDE SHIPS WITH EACH SENSOR. PLEASE SEE THAT DOCUMENT FOR FULL INSTRUCTIONS. THIS SHEET IS INTENDED AS AN OVERVIEW OF CAPABILITIES ONLY.

DESCRIPTIONS:

THE **GLS-LOL** IS A PHOTOCELL SENSOR DESIGNED FOR DAYLIGHT HARVESTING APPLICATIONS TO PROVIDE CONTROL OF ROOM LIGHTING BASED ON THE PRESENCE OF NATURAL DAYLIGHT. INTENDED FOR USE WITH AN OPEN-LOOP TYPE SYSTEM, THE **GLS-LOL** CONTINUALLY MONITORS THE AMOUNT OF DAYLIGHT COMING THROUGH A WINDOW OR SKYLIGHT, ALLOWING ROOM LIGHTING TO BE DIMMED OR SWITCHED OFF WHEN THERE IS SUFFICIENT DAYLIGHT AVAILABLE.

THE **GLS-LOL** CAN BE MOUNTED TO A DRYWALL OR DROP-TILE SURFACE. ITS SIMPLE 3-WIRE INTERFACE ALLOWS FOR CONNECTION TO A CRESTRON CONTROL SYSTEM VIA A SINGLE VERSIPORT I/O (AVAILABLE ON **GLS-SIM** INTERFACES, **C2N-CBD-P** "CAMEO" KEYPADS, AS WELL AS CERTAIN PROCESSORS AND OTHER INTERFACE MODULES) OR DIRECT CONNECTION TO **GLPAC-DIMFLV** OR **GLPP** INTEGRATED CONTROL DEVICES.

GENERAL NOTES & SPECIFICATIONS

1. SENSING:
   - FIELD OF VIEW: 60 DEGREE CONE
   - CENTER OF AXIS: 45 DEGREES FROM MOUNTING SURFACE
   - LIGHT SENSITIVITY: 3 TO 6000 FOOT-CANDLES

2. CONNECTIONS:
   - PLUS: (1) CAPTIVE SCREW TERMINAL, +24VDC INPUT
   - MINUS: (1) CAPTIVE SCREW TERMINAL, POWER & CONTROL COMMON
   - ARROW: (1) CAPTIVE SCREW TERMINAL, 0-10VDC CONTROL OUTPUT

3. CONTROLS: (BEHIND COVER)
   LIGHT LEVEL RANGE: JUMPER-SELECTABLE 3-300M 30-3000, OR 60-6000 FC

4. POWER:
   - CURRENT CONSUMPTION: 4mA @ 24 VOLTS DC
   - CRESNET POWER USAGE: 1 WATT

   (CRESNET BUS MAY BE USED REGARDLESS OF INTERFACE METHOD)

5. HOUSING:
   - CONSTRUCTION: HIGH-IMPACT INJECTION-MOLDED PLASTIC, WHITE
   - MOUNTING: SURFACE MOUNT TO DRYWALL OR DROP-TILE

6. DIMENSIONS:
   - HEIGHT: 1.20 IN. (3.05 cm)
   - DIAMTETER: 2.0 IN, (5.08cm)

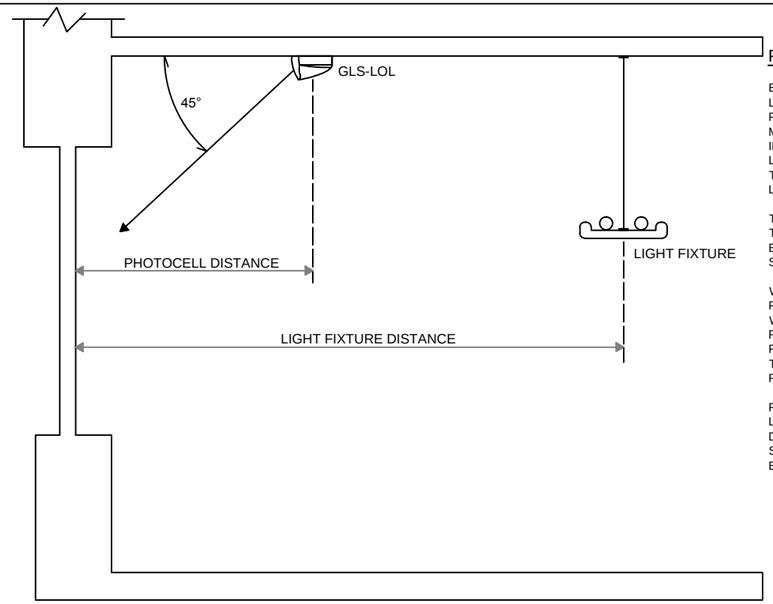
Green Light SYSTEM

PART #: GLS-LOL
DESCRIPTION: OPEN LOOP PHOTOCELL
REVISION: 000
DATE: 7/20/2012
NOTES:

CRESTRON
15 Volvo Drive
Rockleigh NJ 07647
Tel: 888-273-7876
Fax: 201-767-6011
www.crestron.com

PART #:
GLS-LOL
OPEN-LOOP
PHOTOCELL

DRAWING:
1 of 2



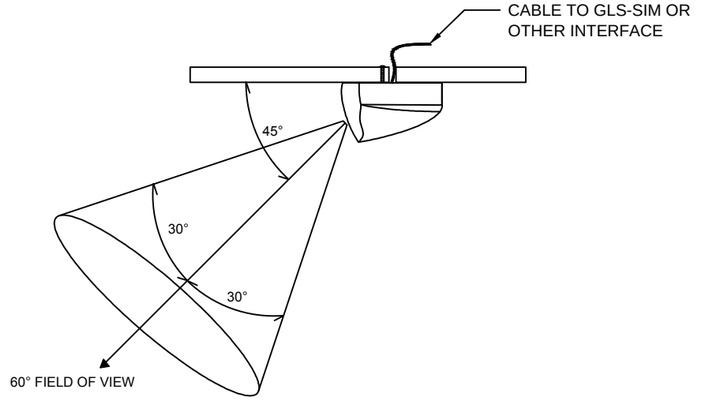
PHOTOCELL PLACEMENT

BEFORE INSTALLING THE PHOTOCELL, VERIFY THE DAYLIGHT LEVELS ON A SUNNY DAY AT THE PROPOSED LOCATION OF THE PHOTOCELL. WITH THE LIGHTS SWITCHED OFF, USE A LIGHT METER TO READ THE DAYLIGHT LEVEL. ORIENT THE LIGHT METER IN THE SAME DIRECTION THE PHOTOCELL WILL VIEW. THE LIGHT LEVELS UNDER SUNNY CONDITIONS MUST BE AT LEAST 35FC. IF THE LIGHT LEVELS ARE LESS, YOU SHOULD SELECT ANOTHER LOCATION OR REORIENT THE PHOTOCELL.

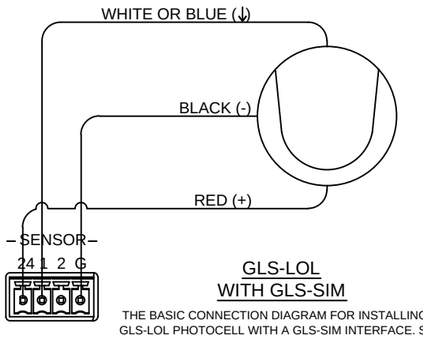
THE PHOTOCELL IS DESIGNED FOR MOUNTING IN A DRY LOCATION THAT IS EXPOSED TO DAYLIGHT. THE PHOTOCELL SHOULD NOT BE EXPOSED TO DIRECT ILLUMINATION FROM AN ELECTRIC LIGHT SOURCE.

WHERE WINDOWS ARE THE PRIMARY SOURCE OF DAYLIGHT, THE PHOTOCELL TYPICALLY MOUNTS ON THE CEILING BETWEEN THE WINDOW AND THE FIRST ROW OF FIXTURES. THE PHOTOCELL POINTS TOWARD THE WINDOW AT APPROXIMATELY A 45° ANGLE. FOR THE BEST RESULTS, THE DISTANCE FROM THE PHOTOCELL TO THE WINDOW SHOULD BE ABOUT 1/3 TO 1/2 OF THE DISTANCE FROM THE FIRST LIGHT FIXTURES TO THE WINDOW.

FOR SKYLIGHT APPLICATIONS, THE PHOTOCELL MOUNTS IN THE LIGHTWELL OF THE SKYLIGHT, ORIENTED TOWARD THE INCOMING DAYLIGHT. TYPICALLY, THE PHOTOCELL IS AIMED TOWARD THE SKYLIGHT. THE LIGHT LEVEL RANGE ADJUSTMENT MAY NEED TO BE CHANGED TO 60-6000 FC FOR SKYLIGHT APPLICATIONS.

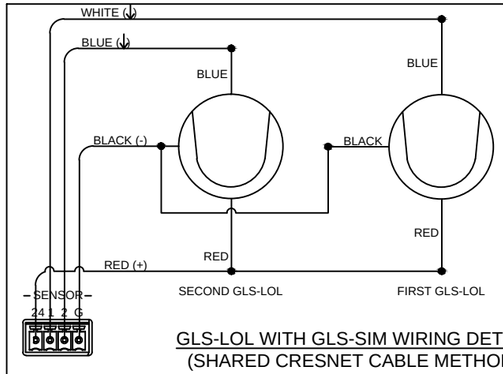


GLS-LOL PLACEMENT



GLS-LOL WITH GLS-SIM

THE BASIC CONNECTION DIAGRAM FOR INSTALLING A GLS-LOL PHOTOCELL WITH A GLS-SIM INTERFACE. SET THE FIRST DIP SWITCH (1 OR 3) FOR THE INPUT "ON" AND THE SECOND DIP SWITCH (2 OR 4) "OFF".

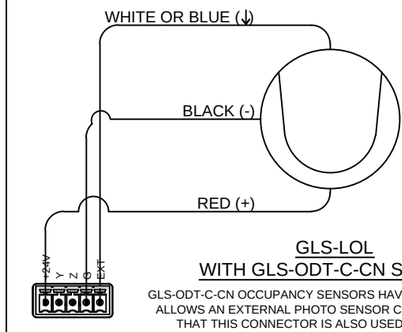


GLS-LOL WITH GLS-SIM WIRING DETAIL (SHARED CRESNET CABLE METHOD)

IN THIS EXAMPLE, BOTH GLS-LOL SENSORS ARE CONNECTED TO THE SIM WITH THE SAME CRESNET CABLE, WHICH CONTAINS 4 WIRES. SINCE EACH SENSOR ONLY REQUIRES 3 WIRES THEY MAY USE THE SAME CONDUCTORS FOR POWER (BLACK & RED) WHILE STILL ALLOWING EACH A SEPARATE CONDUCTOR (BLUE OR WHITE) FOR SIGNAL. EACH SENSOR DETECTS DAYLIGHT AND TURNS ON OR OFF ONLY ITS SPECIFIC LIGHTS INDEPENDENT OF THE OTHER SENSOR.

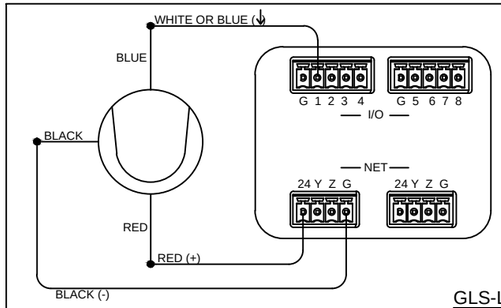
THIS ALLOWS FEWER CABLE RUNS TO SENSORS WITHIN THE SAME PROXIMITY. SPECIAL CARE MUST BE TAKEN WITH THIS METHOD TO INSURE THAT THE TERMINATIONS ARE MADE CORRECTLY OR THE SYSTEM MAY NOT FUNCTION AS DESIRED.

DO NOT CONNECT TWO GLS-LOL SENSORS TO THE SAME INPUT. TWO SENSORS CONNECTED TOGETHER MAY PROVIDE CONFLICTING DATA AND RESULT IN THE SYSTEM NOT OPERATING CORRECTLY.



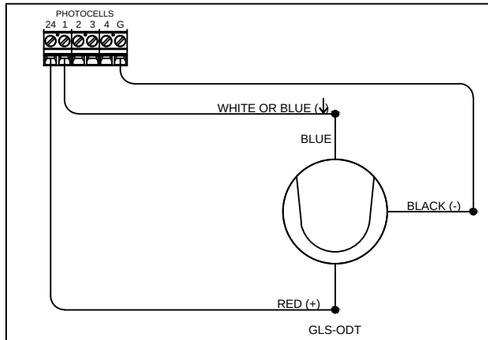
GLS-LOL WITH GLS-ODT-C-CN SENSOR

GLS-ODT-C-CN OCCUPANCY SENSORS HAVE A TERMINAL THAT ALLOWS AN EXTERNAL PHOTO SENSOR CONNECTION. NOTE THAT THIS CONNECTOR IS ALSO USED FOR CRESNET CONNECTIONS BETWEEN THE SENSOR AND OTHER DEVICES- A PIGTAIL MAY NEED TO BE FASHIONED TO ALLOW SPACE FOR WIRE TERMINATIONS- ONLY 2 WIRES FIT IN EACH TERMINAL



GLS-LOL WITH OTHER INTERFACES TYPES

OTHER INTERFACE TYPES ARE AVAILABLE ON PAC2, DIN-I08, DIN-AP2 AND OTHER DEVICES. ALL FEATURE CONNECTIONS SIMILAR TO THE ONES SHOWN HERE.



GLS-LOL WITH GLPAC WIRING DETAIL

GLPAC PANELS INCLUDE DEDICATED TERMINALS FOR PHOTCELLS AND OTHER SENSORS. FOUR INDEPENDENT TERMINALS ARE PROVIDED.

ALL 24V AND GROUND TERMINALS ARE CONNECTED IN PARALLEL WITH SIMILAR TERMINALS. SHOULD THERE BE INSUFFICIENT OCCUPANCY SENSOR TERMINALS FOR 24V IT IS ACCEPTABLE TO USE OTHER 24V TERMINALS WITHIN THE SAME GLPAC.

GLS-LOL WIRING DETAILS

GRESTRON Green Light SYSTEM

PART #: GLS-LOL

DESCRIPTION: OPEN LOOP PHOTOCELL

REVISION: 002

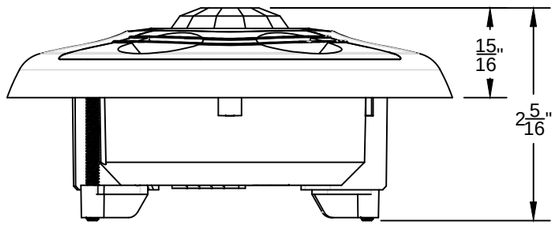
DATE: 8/28/2014

NOTES:

CRESTRON
15 Volvo Drive
Rockleigh NJ 07647
Tel: 888-273-7876
Fax: 201-767-6011
www.crestron.com

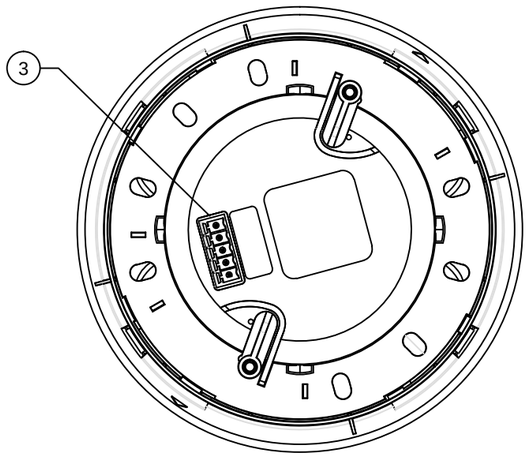
PART #:
GLS-LOL
OPEN-LOOP
PHOTOCELL

DRAWING:
2 of 2



SIDE VIEW

TOP VIEW



BOTTOW VIEW
(BOTTOM COVER REMOVED)

PHYSICAL DETAILS

FEATURES & INSTALLATION BASICS

AN INSTALLATION GUIDE SHIPS WITH EACH SENSOR. PLEASE SEE THAT DOCUMENT FOR FULL INSTRUCTIONS. THIS SHEET IS INTENDED AS AN OVERVIEW OF CAPABILITIES ONLY.

MOUNTING OPTIONS:

1. DROP CEILING MOUNT USING SCREWS (INCLUDED- PREINSTALLED).
2. BACK BOX OR SURFACE MOUNT RACEWAY MOUNTING (BOX/RACEWAY & SCREWS FBO).

CRESTRON RECOMMENDS USING AN OCTAGONAL 4" X 1-1/2" DEEP BACK BOX FOR THESE SENSORS. A GLS-SIM, IF REQUIRED, MAY MOUNT INSIDE THE SAME BACKBOX GIVEN SUFFICIENT DEPTH.

ALL GLS-ODT-C SENSORS ARE DESIGNED FOR OPTIMAL MOUNTING AT 8'. HEIGHTS OF 8'-12' ARE ACCEPTABLE. SPECIAL-ORDER SENSORS MAY BE ADDED TO AN ORDER FOR AN ADDITIONAL CHARGE ALLOWING MOUNTING HEIGHTS OF UP TO 20'.

SEE INSTALLATION INSTRUCTIONS FOR FULL INFORMATION.

NOTE: BEFORE SECURING SENSOR TO THE CEILING, ROTATE THE DEVICE TO ENSURE THAT IT FACES THE DESIRED DIRECTION. REFER TO THE "DETECTION RANGE" SECTION TO CHOOSE THE BEST ORIENTATION. AVOID AREAS WHERE FALSE TRIPPING MAY OCCUR DUE TO OUTSIDE MOTION SUCH AS AN OPEN DOOR. IDENTIFY AND AVOID AREA OF POSSIBLE VIBRATIONS AND AIR CURRENTS (i.e. PROJECTORS, FANS, VENTS" AND MOUNT THE SENSOR AT LEAST 5 FEET AWAY FROM THESE ITEMS.

NOTE: DEPENDING ON INSTALLATION REQUIREMENTS, THE ULTRASONIC SENSORS CAN BE ENABLED OR DISABLED THROUGH THE IR REMOTE. THE ULTRASONIC SENSORS ARE SPLIT INTO TWO BANKS- A & B- WHICH ARE LABELED UNDER THE COVER OF THE SENSOR. IF THE SENSOR IS ALREADY INSTALLED AND THE ORIENTATION OF THE SENSORS IS UNKNOWN, BANK A IS LOCATED ON THE RED LED SIDE OF THE SENSOR AND BANK B IS LOCATED ON THE GREEN LED SIDE OF THE SENSOR.

MODEL/FEATURE BASICS						
MODEL	DESCRIPTION	CURRENT CONSUMPTION	CRESNET POWER	COVERAGE	IR SENSOR	SUGGESTED LOCATION
GLS-ODT-C-NS	2-WAY DUAL TECH	45mA	1.08w	2000 FT² (185.8m²)	IR SENSOR FOR GLPP CONTROL	MOUNT IN CENTER OF ROOM/AREA OR MOUNT IN CORNER*

NOTES KEY

1. IR SENSOR
2. ULTRASONIC SENSORS
3. 5-PIN CONNECTOR
   - 1: +24VDC — 24 VDC POWER FROM CONTROLLER (GLPP, GLPAC, GL-IPAC, GLS-SIM)
   - 2: OCC — CONNECTS TO OCUPANCY SENSOR PORT OF GLPP, GLPAC, GL-IPAC or #1 OR #2 INPUT OF GLS-SIM
   - 3: N/C — NO CONNECTION
   - 4: GND — CONNECT TO CONTROLER GROUND
   - 5: IR — CONNECT TO IR PORT ON GLPP FOR PROGRAMMING WITHOUT SEPARATE IR SENSOR

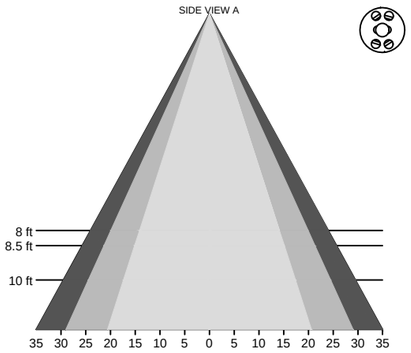
GLS-ODT-C-NS DETAILS

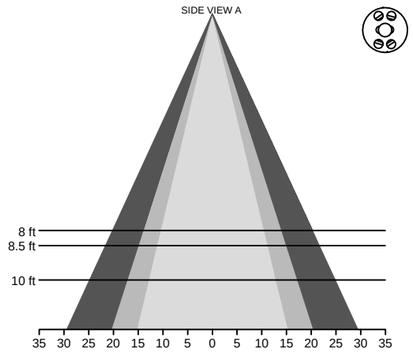
PART #: GLS-ODT-C-NS
DESCRIPTION: DUAL TECHNOLOGY OCCUPANCY SENSOR
REVISION: 000
DATE: 7/17/2014
NOTES:

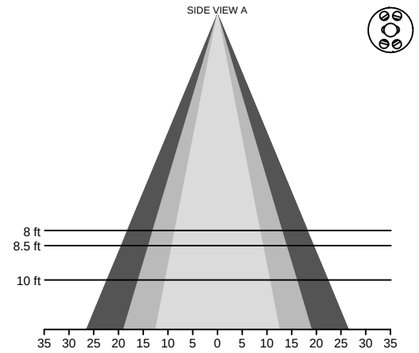
CRESTRON
15 Volvo Drive
Rockleigh NJ 07647
Tel: 888-273-7876
Fax: 201-767-6011
www.crestron.com

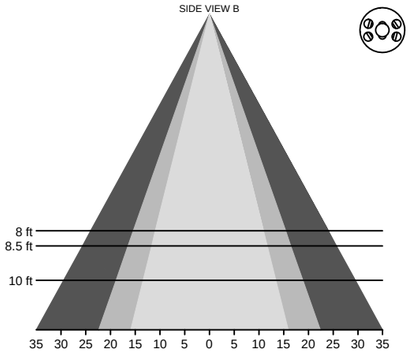
PART #:
GLS-ODT-C-NS
OCCUPANCY SENSOR

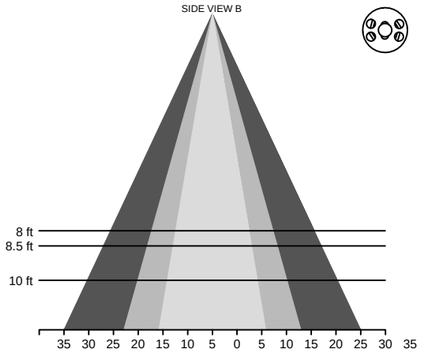
DRAWING:
1 of 2

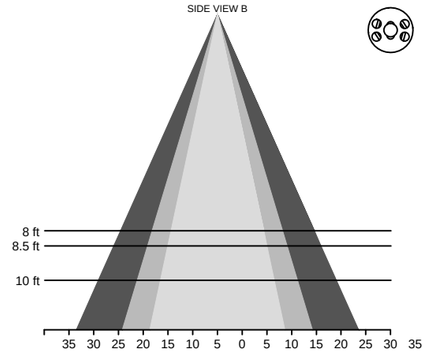


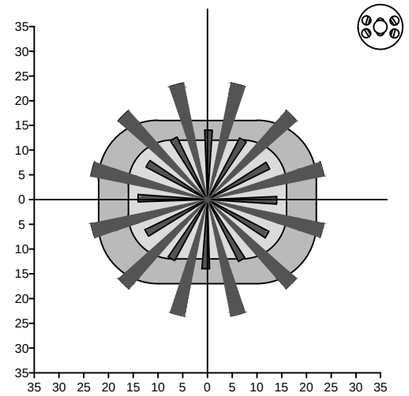




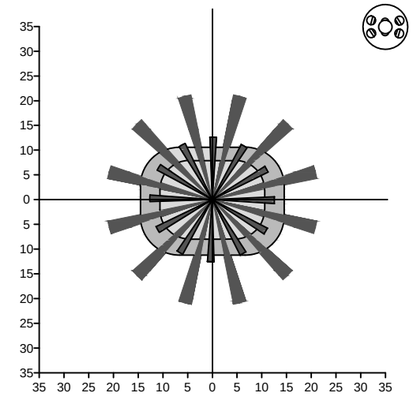




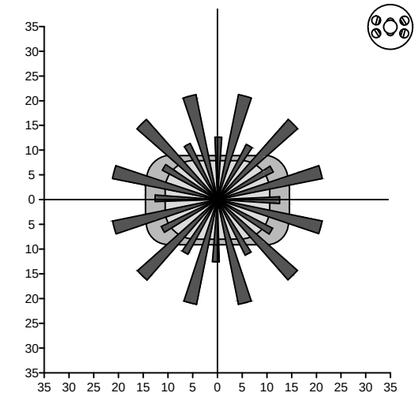




APPROXIMATE COVERAGE
HIGH SENSITIVITY SETTING



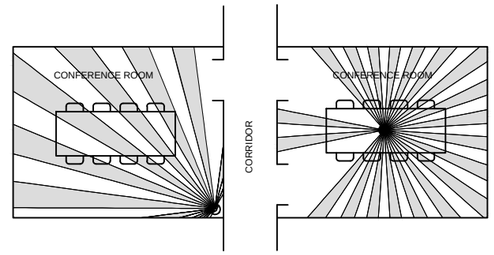
APPROXIMATE COVERAGE
MEDIUM SENSITIVITY SETTING



APPROXIMATE COVERAGE
LOW SENSITIVITY SETTING

NOT TO SCALE

ULTRASONIC MAJOR MOTION
ULTRASONIC MINOR MOTION
PIR MAJOR MOTION



TWO POSSIBLE MOUNTING & MASKING OPTIONS:

IN THE EXAMPLE ABOVE TWO CONFERENCE ROOMS ARE ALONG A CORRIDOR. IT IS UNDESIRABLE FOR CORRIDOR TRAFFIC TO TURN ON THE LIGHTS IN THE CONFERENCE ROOMS. IN THE ROOM ON THE LEFT, AN OCCUPANCY SENSOR IS MOUNTED IN A CORNER WITH ONE ULTRASONIC SENSOR BANK TURNED OFF, COVERING THE ROOM BUT NOT THE CORRIDOR. IN THE ROOM ON THE RIGHT, A SENSOR IS LOCATED OVER THE CENTER OF THE ROOM. THIS SENSOR HAS A MASK INSTALLED WHICH PREVENTS THE SENSOR FROM SEEING CORRIDOR TRAFFIC WHILE STILL COVERING MOST OF THE ROOM.

EACH SENSOR IS SUPPLIED WITH ONE MASK, PERFORATED IN 32° INCREMENTS THAT MAY BE LEFT IN PLACE OR REMOVED TO MASK OR REVEAL CERTAIN AREAS, AND ONE SOLID HALF-MASK.

GLS-ODT-C-NS FIELD OF VIEW RANGES

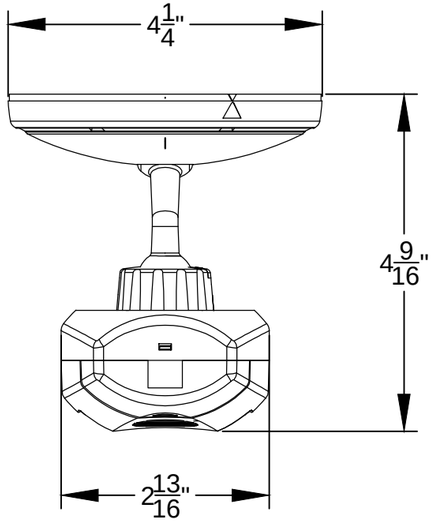
CRESTRON Green Light SYSTEM

PART #: GLS-ODT-C-NS
DESCRIPTION: DUAL TECH OCCUPANCY SENSOR
REVISION: 000
DATE: 7/17/2014
NOTES:

CRESTRON
15 Volvo Drive
Rockleigh NJ 07647
Tel: 888-273-7876
Fax: 201-767-6011
www.crestron.com

PART #:
GLS-ODT-C-NS
OCCUPANCY SENSOR

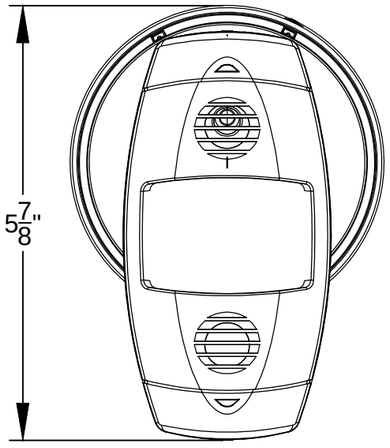
DRAWING:
2 of 2



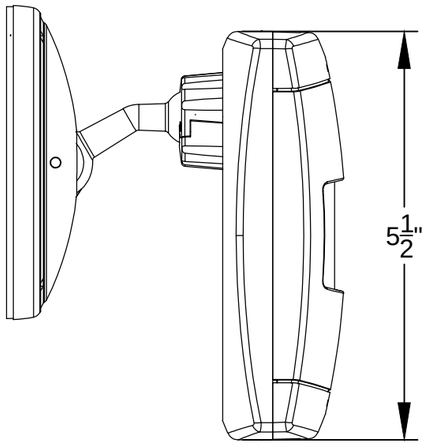
TOP VIEW

DIP SWITCH SETTINGS			
DIP SWITCH	BANK A- FUNCTIONS	OFF	ON
A1	SINGLE/DUAL TECH MODE	DUAL TECH	SINGLE TECH
A2*	PIR/ULTRASONIC MODE	PIR	ULTRASONIC
A3	MANUAL MODE	AUTO ADAPT ENABLE	AUTO ADAPT DISABLE
A4	WALK-THRU DISABLE	ENABLED	DISABLED
DIP SWITCH	BANK B- FUNCTIONS	OFF	ON
B1	OVERRIDE TO ON	AUTO MODE	LIGHTS FORCED ON
B2	OVERRIDE TO OFF	AUTO MODE	LIGHTS FORCED OFF
B3	TEST MODE	OFF > ON > OFF	ENTER/EXIT TEST MODE
B4	LEDs DISABLE	LEDs ENABLED	LEDs DISABLED
*THIS SETTING ONLY USED IN SINGLE TECH MODE			

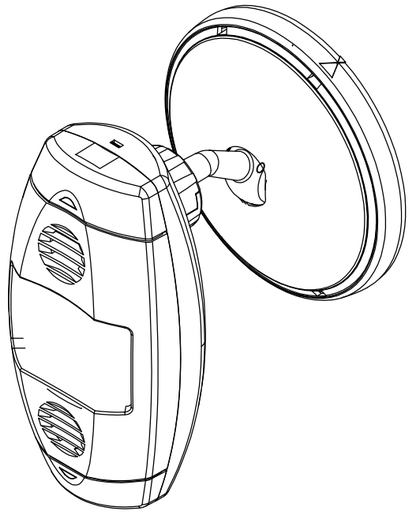
ADJUSTMENT KNOBS				
KNOB COLOR	KNOB ICON	FUNCTION	KNOB SETTING	DEFAULT SETTING
GREEN	EAR	SETS ULTRASONIC RANGE	FULL CCW = MIN (OFF) FULL CW = MAX	50%
RED	EYE	SETS INFRARED RANGE	FULL CCW = MIN (OFF) FULL CW = MAX	75%
BLACK	CLOCK	DELAYED-OFF TIME	FULL CCW = MIN (30 SEC) FULL CW = MAX (30 MIN)	50% (10 MIN.)
BLUE	SUN	AMBIENT LIGHT OVERRIDE (GRAY WIRE CONNECTED)	FULL CCW = LIGHTS STAY OFF FULL CW = LIGHTS ALWAYS TURN ON RANGE- 100-3000 LUX	100%



FRONT VIEW



SIDE VIEW



ISOMETRIC VIEW

FEATURES & INSTALLATION BASICS

AN INSTALLATION GUIDE SHIPS WITH EACH SENSOR. PLEASE SEE THAT DOCUMENT FOR FULL INSTRUCTIONS. THIS SHEET IS INTENDED AS AN OVERVIEW OF CAPABILITIES ONLY.

MODEL/FEATURE BASICS					
MODEL	DESCRIPTION	CURRENT CONSUMPTION	OPERATING FREQUENCY	COVERAGE	SUGGESTED LOCATION
GLS-ODT-W-1200	1-WAY DUAL TECH	30mA	32KHz	1200 FT²	MOUNT IN CORNER/OVER DOORWAY

MOUNTING OPTIONS:

1. DROP CEILING MOUNT USING SCREWS (INCLUDED).
2. BACK BOX OR SURFACE MOUNT RACEWAY MOUNTING (BOX/RACEWAY FBO).

CRESTRON RECOMMENDS USING AN OCTAGONAL 4" X 1-1/2" DEEP BACK BOX FOR THESE SENSORS. A GLS-SIM, IF REQUIRED, MAY MOUNT INSIDE THE SAME BACKBOX GIVEN SUFFICIENT DEPTH.

ALL GLS-ODT-W SENSORS ARE DESIGNED FOR OPTIMAL MOUNTING AT 8'. HEIGHTS OF 8'-10' ARE ACCEPTABLE. SPECIAL-ORDER SENSORS MAY BE ADDED TO AN ORDER FOR AN ADDITIONAL CHARGE ALLOWING HIGHER MOUNTING HEIGHTS SEE INSTALLATION INSTRUCTIONS FOR FULL INFORMATION.

OPERATION DESCRIPTIONS:

DUAL-TECH MODE. THIS IS THE DEFAULT MODE FOR THE SENSOR. PASSIVE INFRARED TECHNOLOGY (PIR) TURNS LIGHTS ON IN THIS MODE; HOWEVER, MOTION DETECTION BY EITHER TECHNOLOGY (PIR OR ULTRASONIC) WILL KEEP THE LIGHTS ON. IF NEITHER TECHNOLOGY DETECTS MOTION, THE LIGHTS WILL TURN OFF AFTER THE DELAYED-OFF TIME.

SINGLE-TECH MODE. ONLY ONE TECHNOLOGY IS ACTIVE IN THIS MODE. THE TECHNOLOGY IS SELECTED BY THE DIP SWITCHES. MOTION DETECTION BY THE SELECTED TECHNOLOGY (PIR OR ULTRASONIC) WILL TURN THE LIGHTS ON AS WELL AS KEEP THEM ON. WHEN MOTION IS NOT DETECTED, THE LIGHTS WILL TURN OFF AFTER THE DELAYED-OFF TIME.

DELAYED-OFF TIME. THE SENSOR IS DESIGNED TO TURN THE LIGHTS OFF IF NO MOTION IS DETECTED FOR A SPECIFIED TIME. THIS LENGTH OF TIME IS CALLED THE DELAYED-OFF TIME AND IS SET USING THE TIMER (BLACK) KNOB ON THE SENSOR. THE ADAPTING PATTERNS WILL MODIFY THE DELAYED-OFF TIME TO FIT THE PARAMETERS OF EACH INSTALLATION BASED ON THE ENVIRONMENTAL CONDITIONS AND OCCUPANCY PATTERNS.

WALK-THRU MODE. THE WALK-THRU FEATURE IS USEFUL WHEN A ROOM IS MOMENTARILY OCCUPIED. WITH THIS FEATURE, THE SENSOR WILL TURN THE LIGHTS OFF SHORTLY AFTER THE PERSON LEAVES THE ROOM. THE WALK-THRU FEATURE WORKS AS FOLLOWS: WHEN A PERSON ENTERS THE ROOM THE LIGHTS WILL TURN ON. IF THE PERSON LEAVES THE ROOM BEFORE THE WALK-THRU TIME-OUT OF 2.5 MINUTES, THE SENSOR WILL TURN THE LIGHTS OFF. IF THE PERSON REMAINS IN THE ROOM LONGER THAN 2.5 MINUTES THE SENSOR WILL PROCEED TO *OCCUPIED* MODE AND THE DELAY-OFF TIME WILL BE USED.

LED OPERATION. THERE ARE TWO LED INDICATORS THAT WILL FLASH WHEN MOTION IS DETECTED. THE LED FLASH CAN BE DISABLED USING THE LED DISABLE SWITCH SETTING. GREEN FLASHES INDICATE MOTION DETECTED BY ULTRASONIC TECHNOLOGY; RED FLASHES INDICATE MOTION DETECTION BY INFRARED TECHNOLOGY.

CRESTRON Green Light SYSTEM

PART #: GLS-ODT-W-1200

DESCRIPTION: OCCUPANCY SENSOR- WALL MOUNT 1200 SQ. FT. RANGE

REVISION: 000

DATE: 1/9/2015

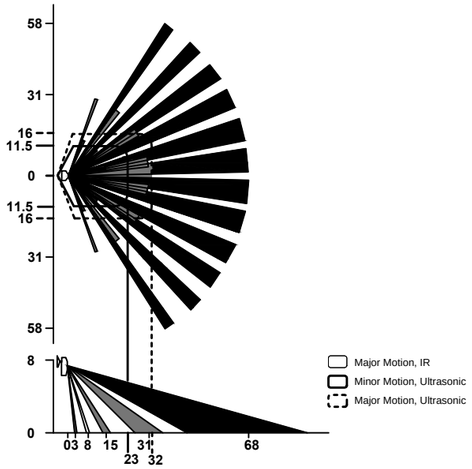
NOTES:

CRESTRON
15 Volvo Drive
Rockleigh NJ 07647
Tel: 888-273-7876
Fax: 201-767-6011
www.crestron.com

PART #:
GLS-ODT-W-1200

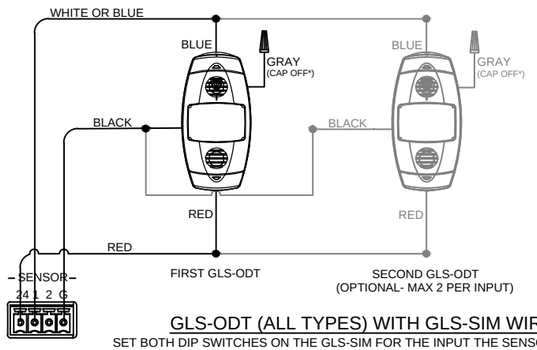
DRAWING:
1 of 2

FIELD OF VIEW RANGES- GLS-ODT-W-1200
(NOT TO SCALE)
TOP VIEW



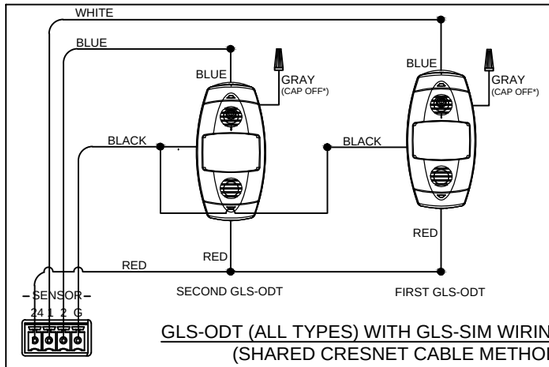
SIDE VIEW

GLS-ODT-W-1200 FIELD OF VIEW RANGE



IN THIS EXAMPLE, THE OPTIONAL SECOND GLS-ODT SENSOR IS CONNECTED WITH THE FIRST. EITHER SENSOR WILL ACTIVATE LIGHTING IF IT DETECTS OCCUPANCY, AND NEITHER MAY DETECT OCCUPANCY BEFORE LIGHTING IS DEACTIVATED.

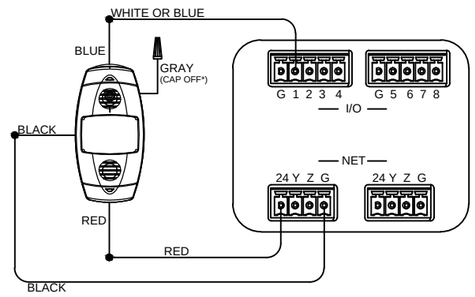
GLS-ODT (ALL TYPES) WITH GLS-SIM WIRING DETAIL
SET BOTH DIP SWITCHES ON THE GLS-SIM FOR THE INPUT THE SENSOR IS CONNECTED TO "ON"



IN THIS EXAMPLE, BOTH GLS-ODT SENSORS ARE CONNECTED TO THE SIM WITH THE SAME CRESNET CABLE, WHICH CONTAINS 4 WIRES. SINCE EACH SENSOR ONLY REQUIRES 3 WIRES THEY MAY USE THE SAME CONDUCTORS FOR POWER (BLACK & RED) WHILE STILL ALLOWING EACH A SEPARATE CONDUCTOR (BLUE OR WHITE) FOR SIGNAL. EACH SENSOR DETECTS OCCUPANCY AND TURNS ON OR OFF ONLY ITS SPECIFIC LIGHTS INDEPENDENT OF THE OTHER SENSOR.

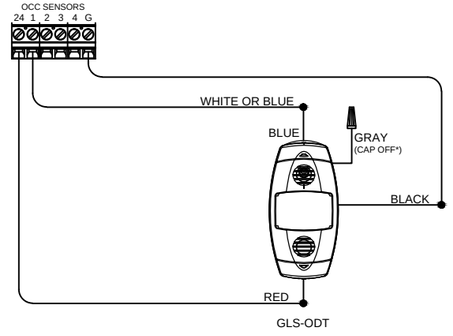
THIS ALLOWS FEWER CABLE RUNS TO SENSORS WITHIN THE SAME PROXIMITY. SPECIAL CARE MUST BE TAKEN WITH THIS METHOD TO INSURE THAT THE TERMINATIONS ARE MADE CORRECTLY OR THE SYSTEM MAY NOT FUNCTION AS DESIRED.

GLS-ODT (ALL TYPES) WITH GLS-SIM WIRING DETAIL
(SHARED CRESNET CABLE METHOD)
SET ALL DIP SWITCHES ON THE GLS-SIM TO "ON"



GLS-ODT (ALL TYPES)
WITH OTHER INTERFACES TYPES

OTHER INTERFACE TYPES ARE AVAILABLE ON PAC2, DIN-I08, DIN-AP2 AND OTHER DEVICES. ALL FEATURE CONNECTIONS SIMILAR TO THE ONES SHOWN HERE.



GLPAC PANELS INCLUDE DEDICATED TERMINALS FOR OCCUPANCY AND OTHER SENSORS. FOUR INDEPENDENT TERMINALS ARE PROVIDED.

ALL 24V AND GROUND TERMINALS ARE CONNECTED IN PARALLEL WITH SIMILAR TERMINALS. SHOULD THERE BE INSUFFICIENT OCCUPANCY SENSOR TERMINALS FOR 24V IT IS ACCEPTABLE TO USE OTHER 24V TERMINALS WITHIN THE SAME GLPAC.

GLS-ODT (ALL TYPES) WITH GLPAC WIRING DETAIL

*GRAY WIRE MAY BE CONNECTED *INSTEAD* OF BLUE WIRE IF USE OF INTERNAL PHOTOSENSOR IS DESIRED. PHOTOSENSOR IS NOT NORMALLY UTILIZED AND DOES NOT OFFER THE FULL FUNCTIONALITY OF A GLS-LOL PHOTOSENSOR.

GLS-ODT-W-1200 WIRING DETAILS

PART #: GLS-ODT-W-1200
DESCRIPTION: OCCUPANCY SENSOR- WALL MOUNT 1200 SQ. FT. RANGE
REVISION: 000
DATE: 1/9/2015
NOTES:

CRESTRON
15 Volvo Drive
Rockleigh NJ 07647
Tel: 888-273-7876
Fax: 201-767-6011
www.crestron.com

PART #:
GLS-ODT-W-1200

DRAWING:
2 of 2

GLS-LOL

Crestron Green Light® Photosensor, Open-Loop

- *Ceiling- or wall-mount photosensor*
- *Measures the light level from a natural daylight source*
- *Vertical or horizontal surface mounting*
- *60 degree field of view*
- *0 to 10 Volts DC analog control output*
- *Control system interface via Cresnet®[1] or analog input*

The GLS-LOL is a photosensor that measures light in order to achieve the optimal balance of natural and artificial lighting in an indoor space in daylight harvesting applications. Intended for use with an open-loop type system, the GLS-LOL continually monitors the amount of daylight coming through a window or skylight, enabling the control system to dim or switch off room lighting when there is sufficient daylight available to light the space.

Open-loop photosensors provide a cost-effective solution for daylight harvesting, allowing multiple lighting zones to be controlled by a single sensor. In a typical office, classroom, or similar space, the GLS-LOL is installed on the ceiling near a window or in the light well of a skylight, directed toward the incoming daylight and away from any electrical lighting fixtures. The system estimates the total amount of ambient lighting in the room according to the light level measured by the photocell.

The GLS-LOL can be mounted to drywall or to a drop-tile surface. Its simple 3-wire interface allows for direct connection to a Crestron® control system via a single Versiport I/O or analog input port, with 24 Volt power taken from the Cresnet® control bus.[1] Using the optional GLS-SIM Sensor Integration Module, the GLS-LOL becomes a full-featured Cresnet device, streamlining the total lighting system.

Cresnet provides a simpler solution for configuring and wiring sensors as part of any complete Crestron system. The Cresnet bus is the communications backbone for many Crestron keypads, lighting controllers, shade motors, sensors, and other devices. Cresnet is a simple, yet flexible 4-wire network that provides bidirectional communication and 24VDC power for Cresnet devices.

SPECIFICATIONS

Sensing

Field of View: 60 degree cone
Center Axis: 45 degrees from mounting surface
Light Sensitivity: 3 to 6000 foot-candles

Connections[2,3]

Plus: (1) Captive screw terminal, +24 Volt DC power input
Minus: (1) Captive screw terminal, power and control signal common
Arrow: (1) Captive screw terminal, light level control signal output, 0-10 Volts DC

Controls (Behind Cover)

Light Level Range: Jumper-selectable 3-300, 30-3000, or 60-6000 fc

Power Requirements

Current Consumption: 4 mA at 24 Volts DC
Cresnet Power Usage: 1 Watt[4]

Housing

Construction: Plastic, white
Mounting: Surface mounts directly to drywall or drop-tile

Dimensions

Height: 1.20 in (31 mm)
Diameter: 2.00 in (51 mm)

MODELS & ACCESSORIES

Available Models

GLS-LOL: Crestron Green Light® Photosensor, Open-Loop

Available Accessories

GLS-SIM: Crestron Green Light® Sensor Integration Module

GLS-LOL Crestron Green Light® Photosensor, Open-Loop

Notes:

1. Cresnet communications requires GLS-SIM Sensor Integration Module (sold separately).
2. Recommended Wire Size: 22 AWG.
3. Connects to a GLS-SIM Integration Module or to a Versiport I/O or Analog Input control port on any Crestron control system.
4. Power may be taken from Cresnet bus regardless of interface method.

This product may be purchased from an authorized Crestron dealer. To find a dealer, please contact the Crestron sales representative for your area. A list of sales representatives is available online at www.crestron.com/salesreps or by calling 800-237-2041.

The specific patents that cover Crestron products are listed online at: patents.crestron.com.

Some Crestron products contain open source software. For specific information, visit www.crestron.com/opensource.

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Crestron Electronics, Inc. 15 Volvo Drive | Rockleigh, NJ 07647
Tel: 800.237.2041 / 201.767.3400 | Fax: 201.767.1903
www.crestron.com

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Specifications subject to change without notice. Revised 07/13/15

GLS-ODT-W-1200

Dual-Technology Wall Mount Occupancy Sensor, 1200 Sq. Ft.

- *Wall or ceiling mount occupancy sensor*
- *Dual-technology motion detection*
- *Versatile twist-and-lock mounting bracket*
- *Swivel adjustment 80° vertical x 60° horizontal*
- *110 degree, 1200 square feet coverage*
- *Extremely accurate and reliable sensing*
- *Microprocessor-controlled self-adapting operation*
- *Fully-digital circuitry for low cost and high reliability*
- *Built-in ambient light recognition*
- *Control system interface via Cresnet[2] or Versiport I/O input*
- *EMerge Alliance® Compatible*

Crestron Green Light® sensors deliver a powerful and cost-effective solution for reducing energy costs and enhancing the functionality of lighting and environmental systems. The GLS-ODT-W-1200 is a wall or ceiling mount occupancy sensor designed for areas up to 1200 square feet to detect when the room is occupied. Advanced self-adaptive, dual-technology motion sensing affords extreme reliability for control of lighting, climate control and other devices in the room.

Dual-Technology Occupancy Sensing

Achieving consistent and dependable occupancy sensing is accomplished using a combination of ultrasonic and passive infrared technologies. Ultrasonic motion detection achieves high sensitivity to small movements over a large area, while passive infrared ensures superior immunity to false triggering from air currents, inanimate objects, or movement in an adjacent corridor. The GLS-ODT-W-1200 allows independent sensitivity adjustment of each sensor type for optimum performance in any space.

Self-Adaptive Adjustment

Under the control of its internal microprocessor, the GLS-ODT-W-1200 continually analyzes occupancy behavior and environmental conditions in the room, adjusting itself for optimal functionality so lights turn on and stay on while the room is occupied, and remain off when no one is present. Sensor sensitivity and delayed-off time adjustments are optimized automatically based on day-to-day use of the room to prevent false-on and off conditions. A walk-thru mode provides specialized behavior in instances of brief occupancy, turning lights off quickly when a person enters and exits the room within a period of 2.5 minutes.

Ambient Light Recognition

A built-in photocell is included for detection of natural daylight in the room. When enabled, the photocell can override the occupancy sensor if the ambient light level is above a set threshold, preventing lights from turning on when there is sufficient daylight in the room.

Versatile Installation

The GLS-ODT-W-1200 is ideally designed to afford versatile positioning in any room with low-hanging ceiling fixtures or other obstructions. The twist-and-lock bracket facilitates fast and simple mounting to a drywall or drop-tile surface, or to a standard 4-inch octagon box. Its simple 3-wire interface allows for direct connection to a Crestron control system via a single Versiport I/O input port, with 24 Volt power taken from the Cresnet control bus[1].

Cresnet® Option

Cresnet provides a simpler solution for configuring and wiring sensors as part of any complete Crestron system. Cresnet is the communications backbone for Crestron lighting dimmers, keypads, touchpanels, shade controllers, thermostats, and many other devices. This flexible 4-wire bus provides data communications and 24 Volts DC power for all of the devices on the Cresnet network. Using the optional GLS-SIM Sensor Integration Module, the GLS-ODT-W-1200 becomes a full-featured Cresnet device, streamlining the total lighting system. Additional features enable quick and easy setup for use with a Crestron IPAC or iLux® system.

Emerge Alliance Registered

This device is EMerge Alliance® registered and designed to work within a 24VDC room-level power distribution system. The EMerge Alliance is a non-for-profit open industry association leading the rapid adoption of safe DC power distribution in commercial buildings through the development of Emerge Alliance standards[3]. Crestron is a proud member and supporter of the Alliance. For more information about Crestron Solutions for EMerge Alliance Applications visit: www.crestron.com/emerge.

EMerge™ ALLIANCE REGISTERED

GLS-ODT-W-1200 Dual-Technology Wall Mount Occupancy Sensor, 1200 Sq. Ft.

SPECIFICATIONS

Sensing

Sensor Technology: Dual-Technology Passive Infrared and Ultrasonic 32 kHz
Auto-Adjustment: Microprocessor-based self-adaptive
Ambient Light Recognition: Built-in photocell for ambient light override
Coverage Area: 1200 sq. ft.
Horizontal Coverage Pattern: 110 degrees
Major Motion Area: 68 x 50 feet
Minor Motion Area: 32 x 32 feet

Memory

Built-in non-volatile memory retains all settings in case of power loss

LED Indicators

IR: (1) Red LED, indicates infrared motion
Ultrasonic: (1) Green LED, indicates ultrasonic motion

Controls (Behind Cover)

Ultrasonic Range: (1) Green adjustment knob;
Adjusts sensitivity of ultrasonic motion sensor;
Adjustment Range: 0% to 100% (50% factory default)

Infrared Range: (1) Red adjustment knob;
Adjusts sensitivity of infrared motion sensor;
Adjustment Range: 0% to 100% (75% factory default)

Delayed-Off Time: (1) Black adjustment knob;
Adjusts delayed-off time duration;
Adjustment Range: 30 seconds to 30 minutes (10 minutes factory default, 6 seconds in test mode)

Ambient Light Threshold: (1) Blue adjustment knob;
Adjusts threshold for ambient light override;
Adjustment Range: 100 to 3000 Lux (3000 Lux factory default)

DIP Switch A: (1) 4-position DIP switch
1: Enables single-technology mode;
2: Selects infrared or ultrasonic when in single-technology mode;
3: Disables auto-adapting;
4. Disables walk-thru mode

DIP Switch B: (1) 4-position DIP switch
1: Forces control signal output high (room lights on);
2: Forces control signal output low (room lights off);
3: Enters or exits Test Mode (toggle “on” then “off”);
4: Disables both LED indicators

Connections

Power: (1) Red 6” flying lead, 24 AWG;
+24 Volt DC power input
Common: (1) Black 6” flying lead, 24 AWG;
Power and control signal common
Occupancy: (1) Blue 6” flying lead, 24 AWG;
Occupancy sensor control signal output;
Provides 24 Volts DC high logic signal when occupancy is detected;
Short circuit protected;
Connects to a GLS-SIM Integration Module[2], or to a Versiport I/O control port on any Crestron control system
Occupancy w/Photocell: (1) Gray 6” flying lead, 24 AWG;
Occupancy sensor control signal output with ambient light override;
Provides 24 Volts DC high logic signal when occupancy is detected and ambient light is below set threshold;
Short circuit protected;
Used instead of the blue “Occupancy” connection when ambient light override is desired

Environmental

Temperature: 32° to 104°F (0° to 40°C)
Humidity: 0% to 95% RH (non-condensing)

Power Requirements

Current Consumption: 30 mA @ 24 Volts DC
Cresnet Power Usage: 1 Watt[1]

Housing

Construction: High-impact injection-molded plastic, white
Mounting: Surface wall or ceiling mount directly to drywall or drop-tile, 4” octagon box (1.5” minimum depth), or round fixture box (Wiremold® V5738 or equivalent); twist-and-lock mounting bracket included

Dimensions

Without mounting bracket
Height: 5.50 in (13.97 cm)
Width: 2.75 in (6.99 cm)
Depth: 1.65 in (4.20 cm)

With mounting bracket
Height: 6.43 in (16.34 cm)
Width: 4.23 in (10.75 cm)
Depth: 4.67 in (11.87 cm)

Weight

6.0 oz (171 g)

Standards & Certifications

CUL/US Listed 9034, ANCE Compliant, NOM 057, California Title 24 Code Compliant, ASHRAE Standard 90.1 Compliant, FCC Compliant

GLS-ODT-W-1200 Dual-Technology Wall Mount Occupancy Sensor, 1200 Sq. Ft.

MODELS & ACCESSORIES

Available Models

GLS-ODT-W-1200: Crestron Green Light® Dual-Technology Wall Mount Occupancy Sensor, 1200 Sq. Ft.

Available Accessories

GLS-SIM: Crestron Green Light® Sensor Integration Module

Notes:

1. Power may be taken from Crestnet bus regardless of interface method.
2. Cresnet communication requires GLS-SIM Sensor Integration Module (sold separately).
3. Information regarding the EMerge Alliance can be found at www.emergealliance.org

This product may be purchased from an authorized Crestron dealer. To find a dealer, please contact the Crestron sales representative for your area. A list of sales representatives is available online at www.crestron.com/salesreps or by calling 800-237-2041.

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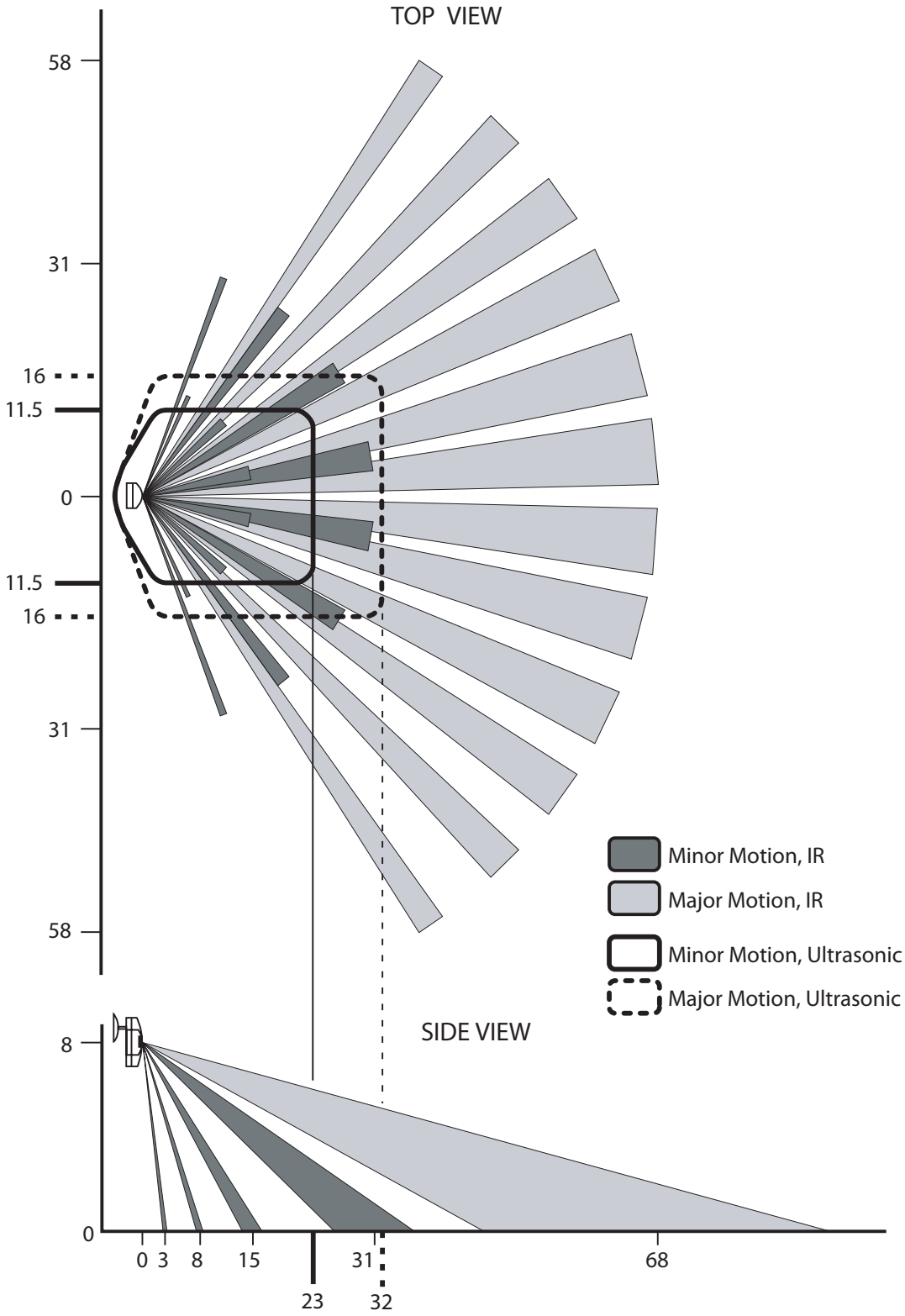
COVERAGE DIAGRAMS



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Specifications subject to change without notice. Revised 03/08/12

GLPP

Crestron Green Light® Power Pack

- *Works in 120-277VAC systems*
- *Ideal for new construction or retrofits*
- *Quick and easy commissioning via optional handheld remote (GLPPA-REMOTE-PROG)*
- *Wired or wireless link to central Crestron® system*
- *1, 2, and 3-channel models available*
- *Switched and 0-10V dimming models available*
- *Integrates with occupancy sensor and photo sensor*
- *Supports up to three remote keypads*
- *Easy keypad wiring using existing switch-loop wiring*
- *Optional handheld remote for daily use (GLPPA-REMOTE-USER)*
- *Real-time energy monitoring on select models*
- *Adaptive zero-cross switching for extended life*
- *Seamless integration with Crestron AV systems*
- *CEC Title 24 2013 Compliant*

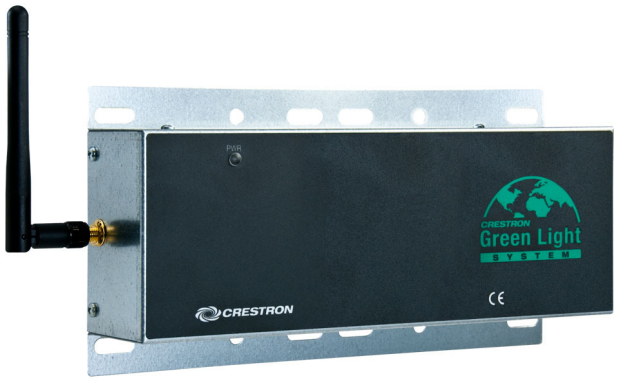
The Crestron Green Light® Power Pack (GLPP) family delivers affordable room lighting control with the essential features for reducing energy usage. Available with up to three channels of switching or 0-10V dimming, each GLPP model includes inputs for a photo sensor and occupancy sensor to control lighting levels automatically based on the amount of natural light and the presence of people in a space, offering a cost-effective and powerful lighting-control solution for classrooms, small offices, and open-plan offices.

Ideal for new construction as well as retrofitting existing buildings, GLPPs are designed to install and commission quickly and without hassle. Additionally, the GLPP can be connected to a central control system, enabling it to become an integral part of the building energy management system. The dimming models also include built-in power monitoring to track energy usage in real time, providing accurate metrics to assess real power savings. When installed as a standalone lighting system, the GLPP can be easily commissioned via an optional, wireless IR remote (the GLPPA-REMOTE-PROG).

Easy Installation

Designed to mount directly over a pair of adjacent 4” square electrical boxes, the GLPP is easy to prepare for and install. High- and low-voltage connections are made using the labeled, color-coded flying-lead wires. Once installed, each unit is instantly operational, providing out-of-the-box default settings adequate for many applications.

Further commissioning tweaks to the GLPP are a snap with the optional GLPPA-REMOTE-PROG remote. For added convenience, this remote can use the IR receiver on a GLS-ODT-C-NS or GLS-OIR-C-NS occupancy sensor connected to the GLPP to send commissioning and setup commands. If occupancy sensors are not present, the optional the GLPPA-IRGW-F flush-mount, external IR receiver facilitates smooth operation of a GLPP remote in any size room.



Energy Efficiency

Occupancy sensor and photo sensor inputs drive the potential for significant energy savings. Lights will turn off automatically when the room is vacated, and rooms with adequate daylight will dim automatically. During the simple commissioning process, these cost-saving techniques can be made permanent to prevent users from overriding them.

Built-in Power Monitoring

Power monitoring, included on all dimming models[1], tracks the real time energy usage of each GLPP, thereby delivering statistics to help control energy costs. By analyzing real data, organizations can make more educated decisions regarding energy resources, which will have greater impact on the bottom line.

User Interface Options

Recall specific scenes or manually adjust light levels in a space with up to three, 4-button GLPPA-KP keypads or the optional handheld user remote GLPPA-REMOTE-USER. To help promote installation in existing spaces, these discrete keypads can be installed in place of standard toggle switches while utilizing existing switch-loop wiring[2].

Adaptive Zero-Cross Switching

The GLPP is built to last and extend the life of the connected ballasts and lamps. By using a proprietary, closed-loop zero-cross switching scheme, the GLPP ensures that relay contacts close under no load.

Crestron® Integrated Building Control System

As with all Crestron products, control goes beyond just a single room. While the GLPP is a great single room solution, it is designed to be part of a larger Crestron integrated building system, linked via wired or wireless communication to the central control system. With Crestron Fusion EM® software, building managers have total energy monitoring, management, and control capabilities over all GLPPs and other installed Crestron equipment.

GLPP Crestron Green Light® Power Pack

Cresnet® Models - Wired Communication

Robust and reliable communications between the GLPP and a control system is provided over the Cresnet bus. The versatile topology of Cresnet means that installers can home-run, daisy-chain, or mix and match as needed. Cresnet connects to the GLPP via flying leads with wire nuts, eliminating any need for crimpers or connectors and making for a more secure, trouble-free termination.

infiNET EX® Models - Wireless Communication

Ultra-reliable infiNET EX wireless technology provides steadfast two-way RF communications throughout a residential or commercial structure without the need for physical control wiring. Employing a 2.4 GHz mesh network topology, each infiNET EX device functions as an expander, passing command signals through to every other infiNET EX device within range (approximately 150 feet or 46 meters indoors), ensuring that every command reaches its intended destination without disruption[3].

The GLPP communicates with a Crestron control system via an infiNET EX Wireless Gateway (model CEN-RFGW-EX, DIN-AP3MEX, or MC3[4]). Up to 100 infiNET EX devices may coexist on a single wireless network, and every non-battery-powered device that is added to the network effectively increases the range and stability of the entire network by providing multiple redundant signal paths[3].

SPECIFICATIONS

Load Ratings

Dim/Switched Channels: 1, 2, or 3 switched or dimmed (0-10V) loads (depending on model)
Per Unit: 16 Amps @ 100-277VAC, 50/60Hz (20 Amps, de-rated to 80%)
Dim Load Types (for dimming models): 0-10 Volt fluorescent ballast (4-wire); 0-10V LED drivers; 60 mA max current sink
Switch Load Types: Fluorescent Ballast, Incandescent, Magnetic Low-Voltage, Electronic Low-Voltage, Neon/Cold Cathode, High-Intensity Discharge
Relay Lifetime: 1,000,000 cycles

Power Requirements

Power Consumption: Wired Models: 1.5 Watts @ 120-277V, with no sensors or keypads attached
Wireless Models: 2 Watts @ 120-277V, with no sensors or keypads attached
Main Power: 100-277 Volts AC, 50/60Hz
Available Sensor Power: 2.5W @ 24 Volts DC (sufficient for powering multiple sensors)

Controls & Indicators

POWER: (1) Green LED; indicates line voltage supplied to unit
STATUS: (1) Red LED; indicates unit is in setup mode
STATUS: (1) Recessed push button; toggles setup mode
IR RECEIVER: (1) IR window for use with commissioning remote control

Connections (Class 1)

HOT: (1) 14 AWG Class 1 flying lead, black, line in (100-277 VAC)
NEUT: (1) 14 AWG Class 1 flying lead, white
SW HOT: (1, 2 or 3) 14 AWG Class 1 flying lead(s), red, switched hot labeled with channel number
GROUND: (1) 14 AWG Class 1 flying lead, green w/yellow stripe

Connections (Class 1) – Dimming Models Only

0-10V dim(+): (1, 2 or 3) 18 AWG Class 1 flying lead(s), violet, labeled with channel number
0-10V dim(-): (1) 18 AWG Class 1 flying lead, gray

Connections (Class 2)

COM: (1) 18 AWG Class 2 flying lead, black; common for sensors, IR and Cresnet®
24V: (1) 18 AWG Class 2 flying lead, red, sensor power
OCC: (1) 18 AWG Class 2 flying lead, orange, signal for occupancy sensor
PHOTO: (1) 18 AWG Class 2 flying lead, yellow, signal for photo sensor
IR: (1) 18 AWG Class 2 flying lead, brown wire, connects to IR terminal of GLS-ODT-C-NS or GLS-OIR-C-NS occupancy sensor; if sensors are not present, brown wire can also connect with optional flush-mount, external IR receiver (GLPPA-IRGW-F)
KEYPAD: (2) 18 AWG Class 2 flying leads, white w/black stripe; supports up to three (3) GLPPA-KP Power Pack Keypads

Connections (Class 2) – Cresnet Models Only

CNET Z: (1) 18 AWG Class 2 flying lead, blue, Cresnet Data Z
CNET Y: (1) 18 AWG Class 2 flying lead, white, Cresnet Data Y

Connections (Class 2) – infiNET EX Models Only

Antenna: (1) connection for supplied antenna

Enclosure

20-gauge galvanized steel enclosure; designed for mounting to two (2) adjacent standard 4" square electrical junction boxes[5]; 3-channel versions require a box depth of 2.125 in (54 mm)

Environmental

Temperature: 32° to 104°F (0° to 40°C)
Humidity: 10% to 90% RH (non-condensing)

Dimensions

Height: 4.25 in (108 mm)
Width: 8.63 in (219 mm); 9.88 in (251 mm) with antenna at 90° angle (wireless model only)
Depth: 2 in (51 mm)

Weight

2 lb (907 g)

GLPP Crestron Green Light® Power Pack

Standards & Certifications

UL916
FCC
Title 24
Relays listed under UL508 Section 41 (Endurance Test) and Section 61C (Electronic Ballasts)
CEC Title 24 2013 Compliant

MODELS & ACCESSORIES

Available Models

GLPP-SWCN: Crestron Green Light® Power Pack, 1-Channel Switch w/ Cresnet®
GLPP-1SW2CN: Crestron Green Light® Power Pack, 2-Channel Switch w/ Cresnet®
GLPP-1SW3CN: Crestron Green Light® Power Pack, 3-Channel Switch w/ Cresnet®
GLPP-DIMFLVCN-PM: Crestron Green Light® Power Pack, 1-Channel 0-10V Dimmer w/Cresnet® & Built-in Power Monitoring
GLPP-1DIMFLV2CN-PM: Crestron Green Light® Power Pack, 2-Channel 0-10V Dimmer w/Cresnet® & Built-in Power Monitoring
GLPP-1DIMFLV3CN-PM: Crestron Green Light® Power Pack, 3-Channel 0-10V Dimmer w/Cresnet® & Built-in Power Monitoring
GLPP-SWEX: Crestron Green Light® Power Pack, 1-Channel Switch w/ infiNET EX® Wireless
GLPP-1SW2EX: Crestron Green Light® Power Pack, 2-Channel Switch w/ infiNET EX® Wireless
GLPP-1SW3EX: Crestron Green Light® Power Pack, 3-Channel Switch w/ infiNET EX® Wireless
GLPP-DIMFLVEX-PM: Crestron Green Light® Power Pack, 1-Channel 0-10V Dimmer w/infiNET EX® Wireless & Built-in Power Monitoring
GLPP-1DIMFLV2EX-PM: Crestron Green Light® Power Pack, 2-Channel 0-10V Dimmer w/infiNET EX® Wireless & Built-in Power Monitoring
GLPP-1DIMFLV3EX-PM: Crestron Green Light® Power Pack, 3-Channel 0-10V Dimmer w/infiNET EX® Wireless & Built-in Power Monitoring

Available Accessories

GLPPA-KP-W-S: In-wall Keypad for GLPP, White Smooth
GLPPA-KP-B-S: In-wall Keypad for GLPP, Black Smooth
GLPPA-KP-A-S: In-wall Keypad for GLPP, Almond Smooth
GLPPA-REMOTE-PROG: Commissioning Remote for GLPP
GLPPA-REMOTE-USER: User Remote for GLPP
GLPPA-IRGW-F: IR Gateway for GLPP, Flush Mount
GLS-ODT-C-NS: Dual-Technology Ceiling Mount Occupancy Sensor
GLS-OIR-C-NS: Passive Infrared Ceiling Mount Occupancy Sensor
GLS-LOL: Crestron Green Light® Photocell, Open-Loop
GLS-LCL: Crestron Green Light® Photocell, Closed-Loop
GLS-LEXT: Crestron Green Light® Photocell, Outdoor
CEN-RFGW-EX: infiNET EX® Wireless Gateway (Only for: GLPP-1DIMFLV2EX-PM, GLPP-1DIMFLV3EX-PM, GLPP-1SW2EX, GLPP-1SW3EX, GLPP-DIMFLVEX-PM, GLPP-SWEX)
CEN-RFGW-EX-PWE: infiNET EX® Wireless Gateway w/PoE Injector (Only for: GLPP-1DIMFLV2EX-PM, GLPP-1DIMFLV3EX-PM, GLPP-1SW2EX, GLPP-1SW3EX, GLPP-DIMFLVEX-PM, GLPP-SWEX)
MC3: 3-Series Control System® w/infiNET EX® (Only for: GLPP-1DIMFLV2EX-PM, GLPP-1DIMFLV3EX-PM, GLPP-1SW2EX, GLPP-1SW3EX, GLPP-DIMFLVEX-PM, GLPP-SWEX)
DIN-AP3MEX: DIN Rail 3-Series® Automation Processor w/infiNET EX® (Only for: GLPP-1DIMFLV2EX-PM, GLPP-1DIMFLV3EX-PM, GLPP-1SW2EX, GLPP-1SW3EX, GLPP-DIMFLVEX-PM, GLPP-SWEX)
CLW-EXPEX-GD-W-T: infiNET EX® Wireless Expander, Ground Pin Down, White Textured (Only for: GLPP-1DIMFLV2EX-PM, GLPP-1DIMFLV3EX-PM, GLPP-1SW2EX, GLPP-1SW3EX, GLPP-DIMFLVEX-PM, GLPP-SWEX)
GLA-EXPEX: Crestron Green Light® Wireless Expander for infiNET EX® Networks (Only for: GLPP-1DIMFLV2EX-PM, GLPP-1DIMFLV3EX-PM, GLPP-1SW2EX, GLPP-1SW3EX, GLPP-DIMFLVEX-PM, GLPP-SWEX)

Notes:

1. Models with suffix "-PM"
2. Two dedicated wires are required from the keypad location to the GLPP.
3. Any infiNET EX device that provides expander functionality will effectively extend the range of the wireless network beyond the initial range of the gateway. Battery-powered infiNET EX devices do not provide expander functionality.
4. Item(s) sold separately.
5. Some models may need a box extension to meet code requirements.

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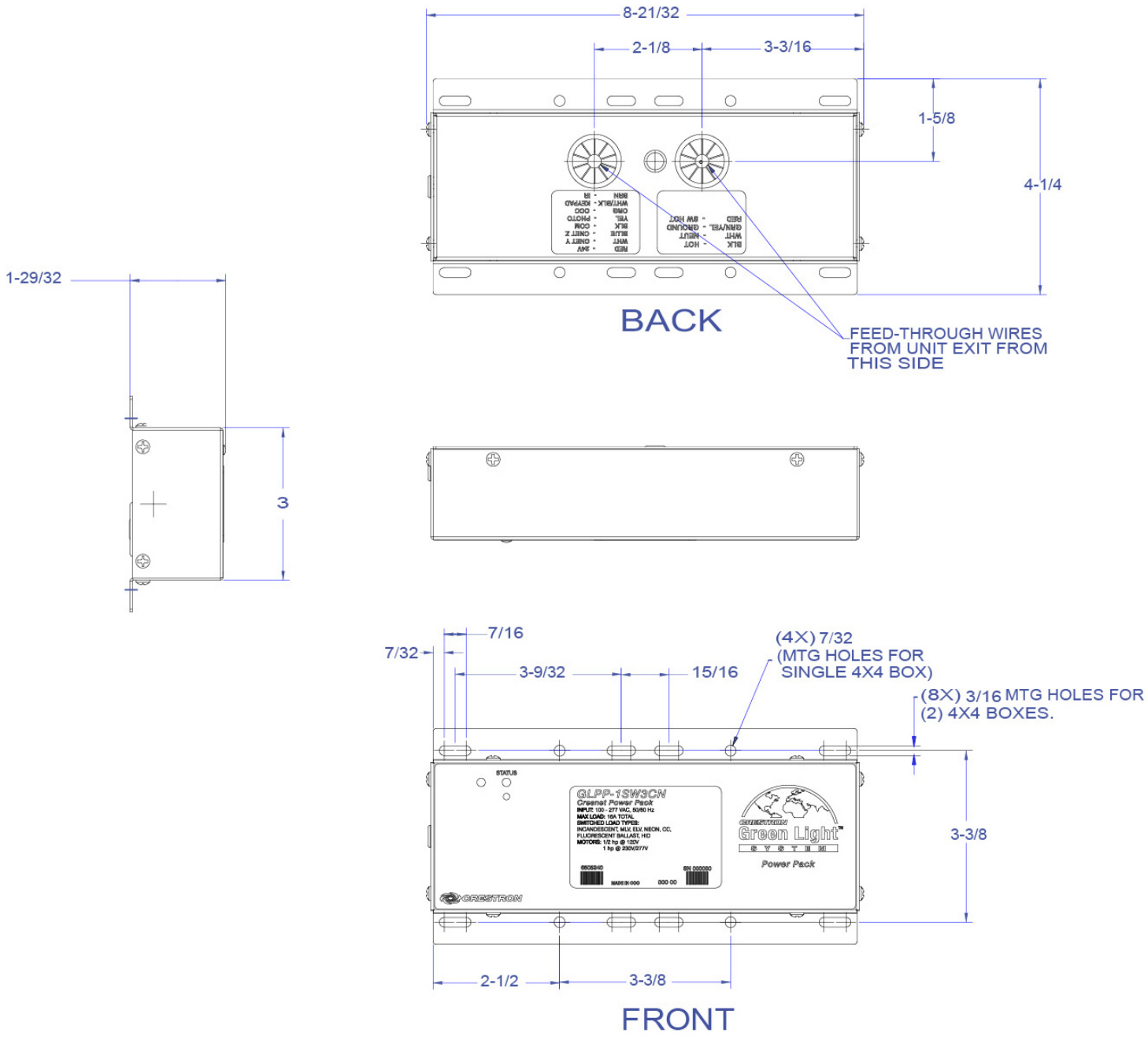
GLPP Crestron Green Light® Power Pack

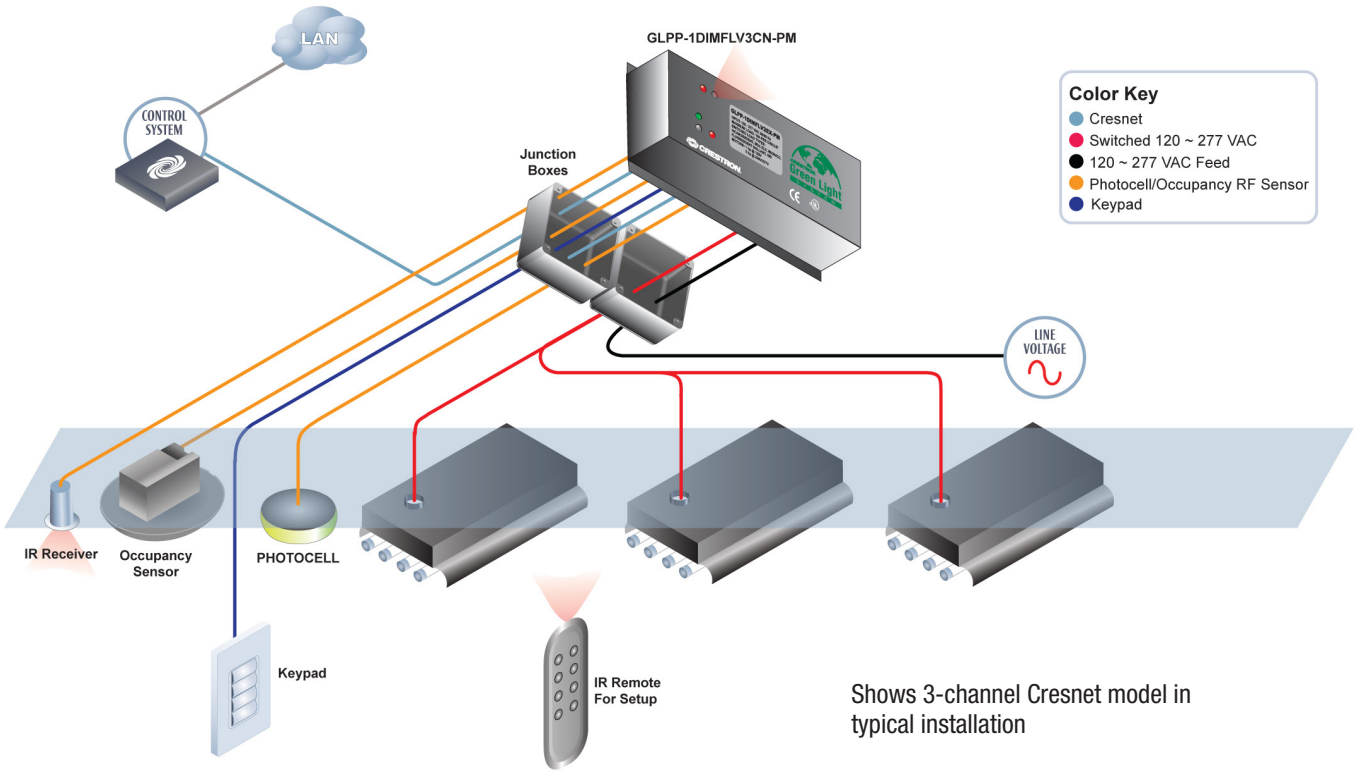
CAD DRAWINGS

GLPP-1SW3CN Shown

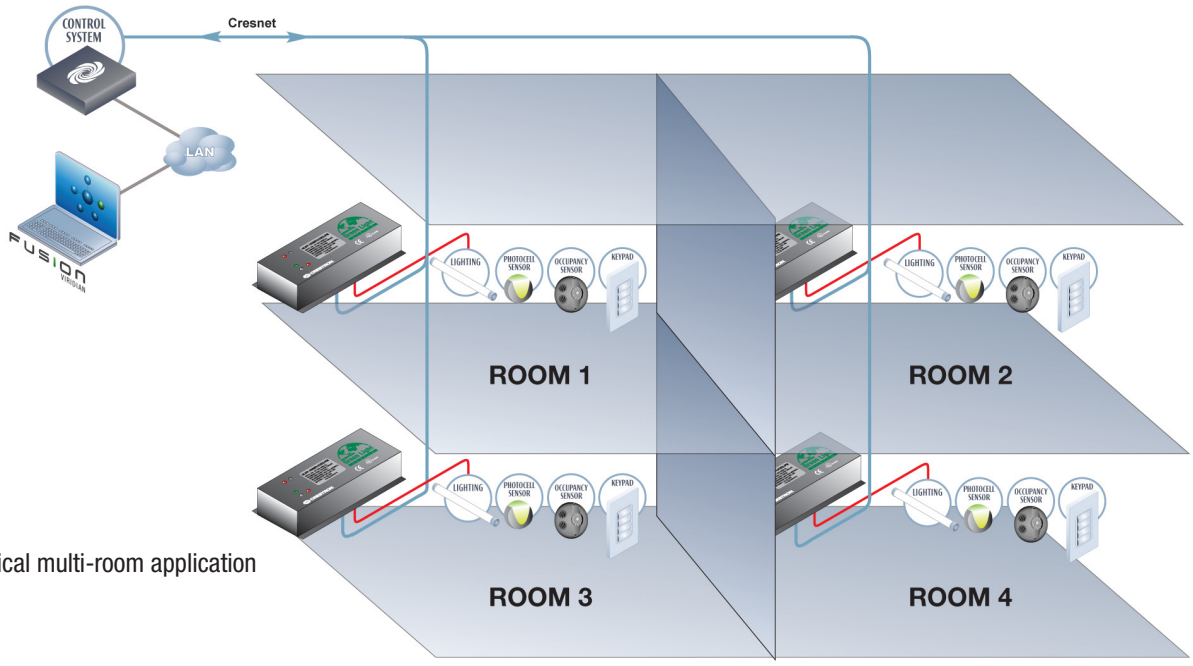


GLPP Crestron Green Light® Power Pack

APPLICATION DIAGRAMS



Shows 3-channel Cresnet model in typical installation



Shows typical multi-room application

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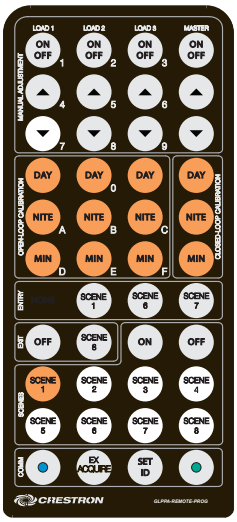
GLPPA-REMOTE-PROG

Commissioning Remote for GLPP Systems

The GLPPA-REMOTE-PROG is a wireless IR remote used to commission a Crestron Green Light® Power Pack (GLPP) system when installed as a standalone lighting system. Included on the GLPPA-REMOTE-PROG is an array of discrete functions designed to make commissioning quick and easy.



SPECIFICATIONS

IR Transmitter

Frequency: 38 kHz
Format: RC5
Range: 60 feet

Buttons

Please refer to image.

Power Requirements

3 Volts DC via (2) AAA batteries (not included)

Environmental

Temperature: 41° to 104°F (5° to 40°C)
Humidity: 10% to 90% RH (non-condensing)

Enclosure

Injection-molded plastic

Dimensions

Height: 4.6 in (116 mm)
Width: 2.1 in (54 mm)
Depth: 0.5 in (13 mm)

Weight

TBD

MODELS & ACCESSORIES

Available Models

GLPPA-REMOTE-PROG: Commissioning remote for GLPP systems

Available Accessories

GLPP: Crestron Green Light® Power Pack

Notes:

This product may be purchased from an authorized Crestron dealer. To find a dealer, please contact the Crestron sales representative for your area. A list of sales representatives is available online at www.crestron.com/salesreps or by calling 800-237-2041.

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GLPPA-KP

Keypad for GLPP Systems

- *In-wall keypads for GLPP systems*
- *Master Scene keypad for multiple scene recall, Zone Keypads for specific zone control without any programming, and Zone Master Keypad for lighting control in single rooms with multiple zones*
- *Seamless integration with GLPP systems*
- *2-conductor wire connection to the GLPP*
- *Flexible installation with new or existing high- or low-voltage wiring*
- *Non-polarized 2-wire communications bus*
- *Smooth black, white, or almond colors available*
- *Rocker switch and four button caps included, depending on model*
- *Up to 3 GLPPA-KP Series keypads, 2 occupancy sensors, and 1 photosensor can be connected to a single GLPP system*

The GLPPA-KP Series of in-wall keypads feature “plug and play” control of loads connected to a Crestron Green Light® Power Pack (GLPP) system. This versatile family of keypads offers a simple lighting control solution with out-of-the-box functionality for quick and easy system setup. Use the keypads to turn the load on or off and to set and recall scenes. “Zone Keypad” models connect automatically to the GLPP for individual zone control and do not require any programming. A four-button, multi-zone model keypad provides zoned lighting control from a single interface. The GLPPA-KP Series easily connects to the GLPP main unit via a two-wire, low-voltage bus. Available in black, white, and almond, the GLPPA-KP keypads suit almost any décor.

Flexible Configurations

Crestron® offers several models of GLPPA-KP keypads for an easy-to-configure lighting control solution:

- The GLPPA-KP Master Scene keypad can be installed with a rocker-switch for on/off and dimming control or with four buttons. The four-button configuration provides dedicated buttons for master on and off control and two scene recalls. Scenes can be adjusted by any user directly from the keypad or by using the GLPPA-REMOTE-PROG (sold separately).
- Zone Keypad models GLPPA-KP1/2/3 make setting up a zoned lighting control system a breeze. Each of the three keypad models is pre-programmed to control the zone in the model’s name. For example, in a two-zone application, a GLPPA-KP1 and a GLPPA-KP2 automatically control zone 1 and zone 2, respectively.
- The GLPPA-KP4 four-button Zone Master Keypad completes the series by providing control for multiple lighting zones within one room. The four buttons toggle the channels in any 2-channel or 3-channel GLPP system.

Up to three GLPPA-KP keypads can be connected to a single GLPP system.

Easy Installation

Two flying leads connect a GLPPA-KP Series keypad to the GLPP system via a non-polarized, low-voltage bus. Use new or existing high-voltage wiring (Class 1) or low-voltage wiring (Class 2) for quick installation. Up to three keypads, two occupancy sensors, and one photosensor can be connected to any single GLPP system.

SPECIFICATIONS

Power Requirements

1 Watt (0.05 Amps at 24 Volts DC) supplied by GLPP over proprietary 2-wire bus

Controls

GLPPA-KP Model Only
Keypad Buttons: Configurable for single rocker switch or (4) single-action pushbuttons
Button Events: Tap, Double-tap, Press and Hold (not all events trigger actions)
Button Caps: Includes (1) rocker and (4) small button caps with labeling
Labeling (Small Button Caps Only): Pre-labeled: ALL ON, SCENE 1, SCENE 2, ALL OFF

GLPPA-KP1/2/3 Models Only
Single rocker switch

GLPPA-KP Model Only
Keypad Buttons: (4) Single-action pushbuttons
Button Events: Tap, Press and Hold (not all events trigger actions)
Button Caps: (4) Small button caps with labeling; Ships with (1) additional button cap with labeling
Labeling (Small Button Caps Only): (5) Pre-labeled button caps: ALL ON, SCENE 1, SCENE 2, SCENE3, ALL OFF

GLPPA-KP Keypad for GLPP Systems

LED Indicators

Feedback (GLPPA-KP Model Only): (1) White LED, illuminates when any load is above 0%

Connections

Communications Bus: (2) 18 AWG Class 2 flying leads, white with black stripe (non-polarized)

Environmental

Temperature: 32° to 113° F (0° to 45° C)
Humidity: 10% to 90% RH (non-condensing)

Enclosure

Plastic, 1-gang mountable in a standard electrical box;
Requires decorator style faceplate (not included)

Dimensions

Height: 4.13 in (105 mm)
Width: 1.75 in (45 mm)
Depth: 1.8 in (46 mm)

Weight

3.6 oz (103 g)

MODELS

Available Models

GLPPA-KP-A-S: In-wall Master Scene Keypad for GLPP, Almond Smooth
GLPPA-KP-B-S: In-wall Master Scene Keypad for GLPP, Black Smooth
GLPPA-KP-W-S: In-wall Master Scene Keypad for GLPP, White Smooth
GLPPA-KP1-A-S: In-wall Zone Keypad for GLPP, Almond Smooth
GLPPA-KP1-B-S: In-wall Zone Keypad for GLPP, Black Smooth
GLPPA-KP1-W-S: In-wall Zone Keypad for GLPP, White Smooth
GLPPA-KP2-A-S: In-wall Zone Keypad for GLPP, Almond Smooth
GLPPA-KP2-B-S: In-wall Zone Keypad for GLPP, Black Smooth
GLPPA-KP2-W-S: In-wall Zone Keypad for GLPP, White Smooth
GLPPA-KP3-A-S: In-wall Zone Keypad for GLPP, Almond Smooth
GLPPA-KP3-B-S: In-wall Zone Keypad for GLPP, Black Smooth
GLPPA-KP3-W-S: In-wall Zone Keypad for GLPP, White Smooth
GLPPA-KP4-A-S: In-wall Zone Master Keypad for GLPP, Almond Smooth
GLPPA-KP4-B-S: In-wall Zone Master Keypad for GLPP, Black Smooth
GLPPA-KP4-W-S: In-wall Zone Master Keypad for GLPP, White Smooth

Notes:

This product may be purchased from an authorized Crestron dealer. To find a dealer, please contact the Crestron sales representative for your area. A list of sales representatives is available online at www.crestron.com/salesreps or by calling 800-237-2041.

The specific patents that cover Crestron products are listed online at: patents.crestron.com.

Certain Crestron products contain open source software. For specific information, visit www.crestron.com/opensource.

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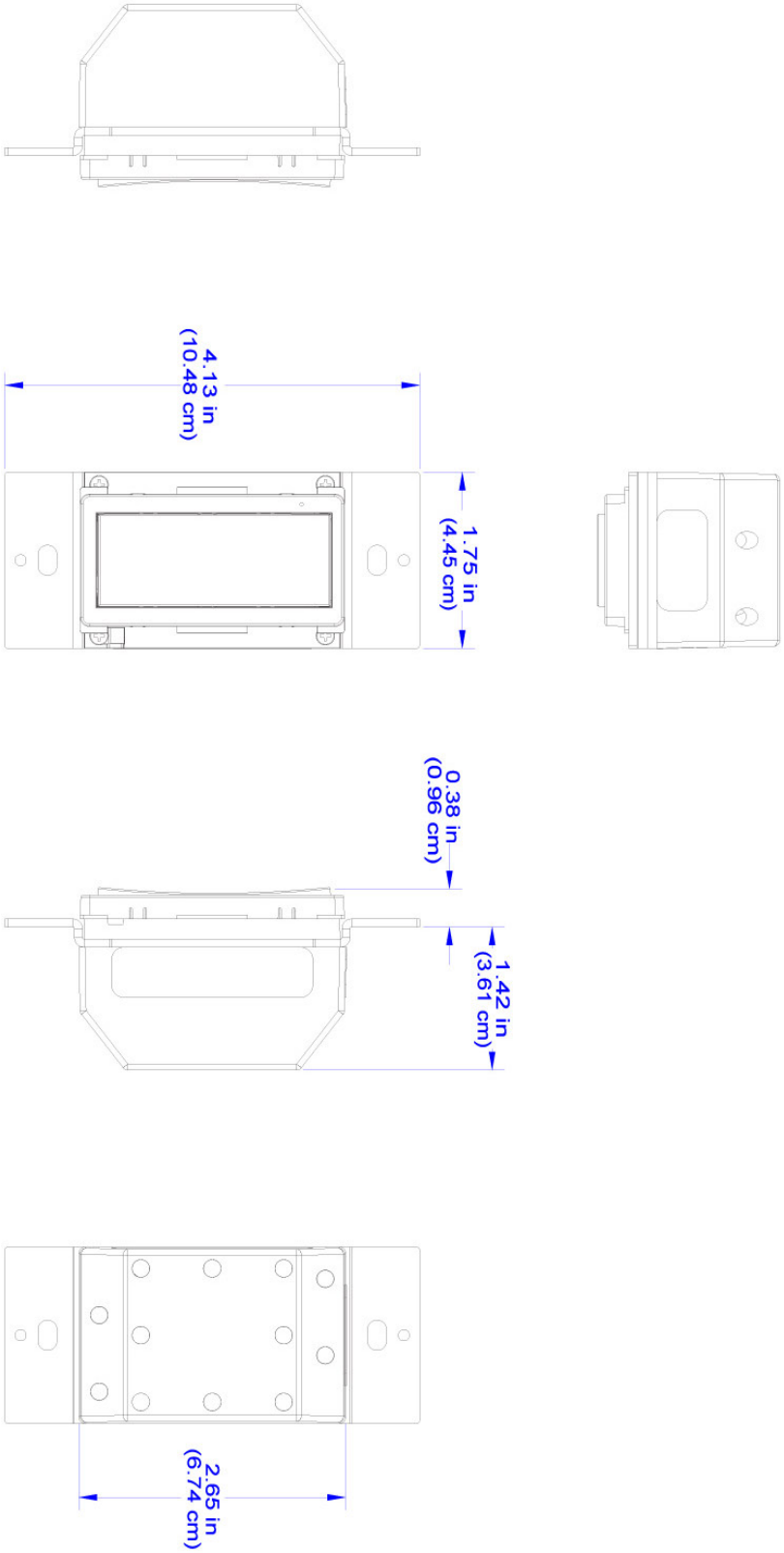
GLPPA-KP Keypad for GLPP Systems

CAD DRAWINGS (GLPPA-KP MODEL SHOWN)



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Specifications subject to change without notice. Revised 03/15/16

GLS-ODT-C-NS

Dual-Technology Ceiling Mount Occupancy Sensor

- > *Ceiling-mount occupancy sensor for standalone lighting systems*
- > *Dual-technology motion detection*
- > *360 degree, 2000 square feet coverage*
- > *Works with GLPP, GLPAC, and GL-IPAC-SW8*
- > *Connect via a Versiport or digital input port*
- > *Discreet, low-profile appearance*
- > *Extremely accurate and reliable sensing*
- > *Fully digital circuitry for low cost and high reliability*
- > *Connect to a GLS-SIM for control system interface via Cresnet®*

The GLS-ODT-C-NS is a low-profile, ceiling-mount occupancy sensor that delivers a powerful and cost-effective solution for reducing energy costs and enhancing the functionality of standalone lighting systems. It is designed for large areas up to 2000 square feet to detect when the room is occupied, making it great for use in large spaces such as auditoriums, warehouses, and building lobbies. Dual-technology motion sensing, available with the GLS-ODT-C-NS, affords extreme reliability for control of lighting, climate control, and other devices in the room. For power and control, the GLS-ODT-C-NS can connect directly to a GLPP, GLPAC, or GL-IPAC-SW8. The GLS-SIM Sensor Integration Module gives the option to interface with a control system via Cresnet®.

Dual-Technology Occupancy Sensing

Achieving consistent and dependable occupancy sensing is accomplished using a combination of ultrasonic and passive infrared technologies. Ultrasonic motion detection achieves high sensitivity to small movements over a large area, while passive infrared ensures superior immunity to false triggering from vibrations, inanimate objects, or movement in an adjacent corridor. Ultrasonic motion detection can be turned on for Side A, Side B or Both sides of the occupancy sensor to avoid false occupancies facing a hallway or doorway. The GLS-ODT-C-NS allows independent sensitivity adjustment of each sensor type for optimum performance in any space.

Walk-Through Mode

The GLS-ODT-C-NS features a walk-through mode that provides specialized behavior in instances of brief occupancy, turning lights off quickly when a person enters and exits the room within a period of 90 seconds.

Versatile Installation

The GLS-ODT-C-NS was designed to achieve a discreet, nearly hidden appearance when installed on a typical drywall or droptile ceiling. Hardware is included for fast and simple mounting in a hole created by the provided cutout template or to a standard 4-inch octagon box.

Cresnet Option[1]

Cresnet provides a simpler solution for configuring and wiring sensors as part of any complete Crestron® system. Cresnet is the communications backbone for Crestron lighting dimmers, keypads, touch screens, shades, thermostats, and many other devices. This flexible 4-wire bus provides data communications and 24 Volts DC power for all of the devices on the Cresnet network. Using the optional GLS-SIM Sensor Integration Module, the GLS-ODT-C-NS becomes a full-featured Cresnet device, streamlining the total lighting system.

IR Remote

A variety of parameters can be set for the GLS-ODT-C-NS by using the GLS-REMOTE-ODT/OIR remote (sold separately). This IR remote eliminates the need for a ladder to commission or set up any system. The installer can simply stand underneath the sensor and use the remote to complete setup functions and fine tune sensor settings after installation.

SPECIFICATIONS

Sensing

Sensor Technology: Passive Infrared and Ultrasonic (40 kHz)
Coverage Area: 2000 sq. ft.
Coverage Pattern: 360 degrees

LED Indicators

IR: (1) Red LED, PIR detection
Ultrasonic: (1) Green LED, Ultra Sonic detection

IR Remote (sold separately)

Parameters and settings available through IR remote:
Separate Occupancy and Vacancy sensitivity settings;
Timeout (30s, 2m, 5m, 10m, 15m, 30m);
Walk-Through mode “Short Timeout” (Enable/Disable);
LEDs (Enable/Disable);
PIR Sensitivity (High, Med, Low, OFF), with the option to set separate occupancy and vacancy settings;
US Sensitivity (High, Med, Low, OFF), with the option to set separate occupancy and vacancy settings;
US detection (Side A only, Side B only, Both);
Factory Reset;
Force Vacancy;
4 Custom buttons (for future additional features)

GLS-ODT-C-NS Dual-Technology Ceiling Mount Occupancy Sensor

Connections

(1) 5-pin 3.5mm detachable terminal block; 16 AWG maximum wire width supported, includes the following terminals:
+24V: DC power input
OCC: Occupancy sensor control signal output; provides 24 Volts DC high logic signal when occupancy is detected (both PIR and US must sense occupancy to provide 24 V signal, if room is transitioning from a vacant to occupied state; after initial occupancy is detected, either PIR or US detection will trigger the 24 V signal to maintain the occupied state);
Short circuit protected;
Connects to a GLS-SIM Integration Module (sold separately) on any Crestron® control system
NC: Unused
G: Ground
IR: IR single direction, transmits information read from remote by IR receiver on sensor

Environmental

Temperature: 32° to 104°F (0° to 40°C)
Humidity: 10% to 90% RH (non-condensing)

Power Requirements

Current Consumption: 45 mA @ 24 Volts DC
Cresnet® Power Usage: 1 Watt

Enclosure

Housing: Plastic, white
Mounting: Mounts to a 4" (102 mm) octagon box or ~3-1/2" (88 mm) diameter hole created by provided cutout template. Includes mounting screws and integral toggle clamps. A 1-1/2" (38 mm) minimum mounting depth is recommended.

Dimensions

Diameter: 4.80 in (122 mm)
Depth: 2.30 in (59 mm) overall, 0.97 in (25 mm) exposed

Weight

5.1 oz (144 g)

Standards & Certifications

UL60730-1, FCC, CE, C-Tick, IC, Plenum Rated, California Title 24 Code

MODELS & ACCESSORIES

Available Models

GLS-ODT-C-NS: Dual-Technology Ceiling Mount Occupancy Sensor

Available Accessories

GLS-REMOTE-ODT/OIR: IR Remote for GLS Occupancy Sensors
GLS-SIM: Sensor Integration Module

Notes:

1. The GLS-ODT-C-NS requires a GLS-SIM for Cresnet.

This product may be purchased from an authorized Crestron dealer. To find a dealer, please contact the Crestron sales representative for your area. A list of sales representatives is available online at www.crestron.com/salesreps or by calling 800-237-2041.

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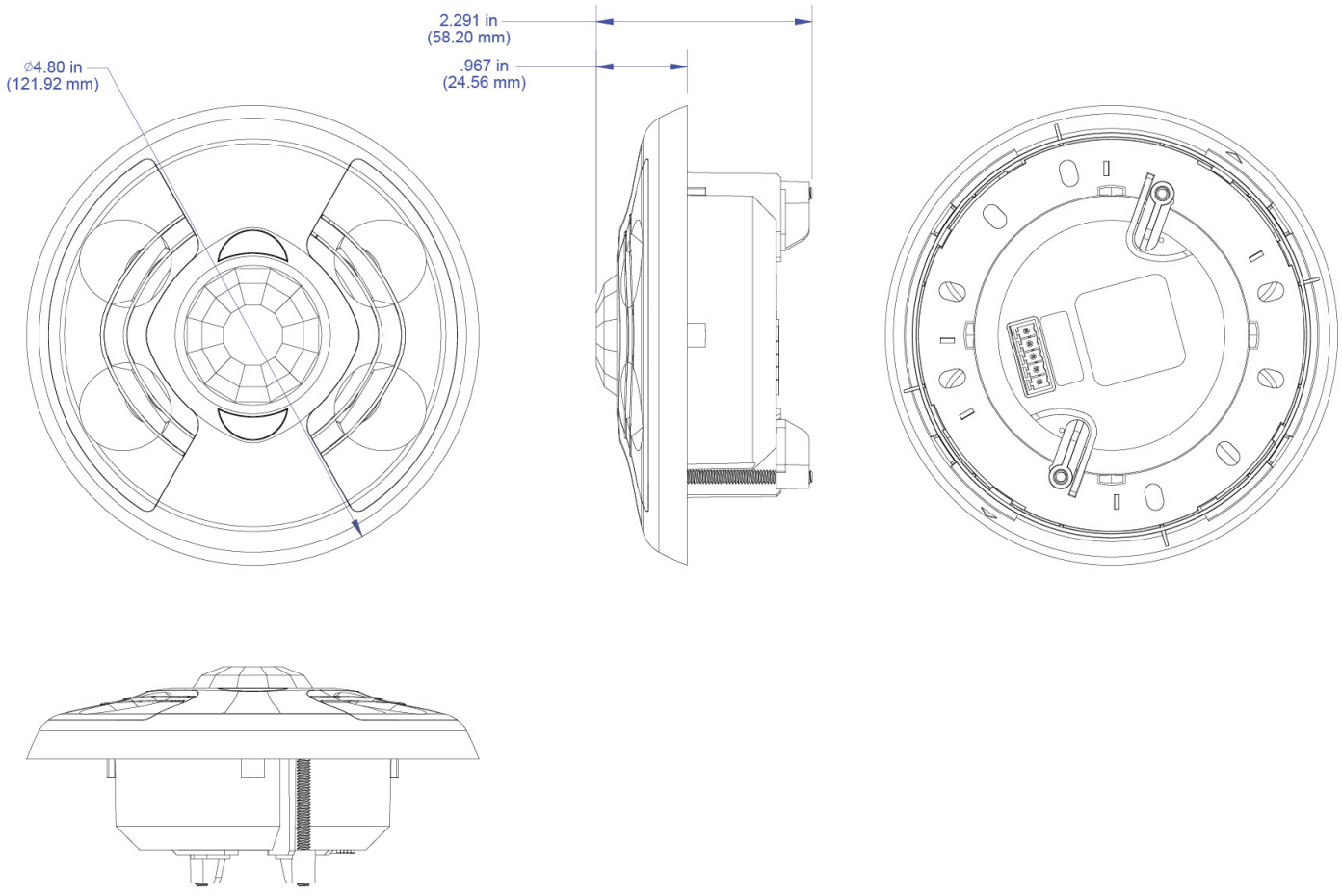
GLS-ODT-C-NS Dual-Technology Ceiling Mount Occupancy Sensor

CAD DRAWING



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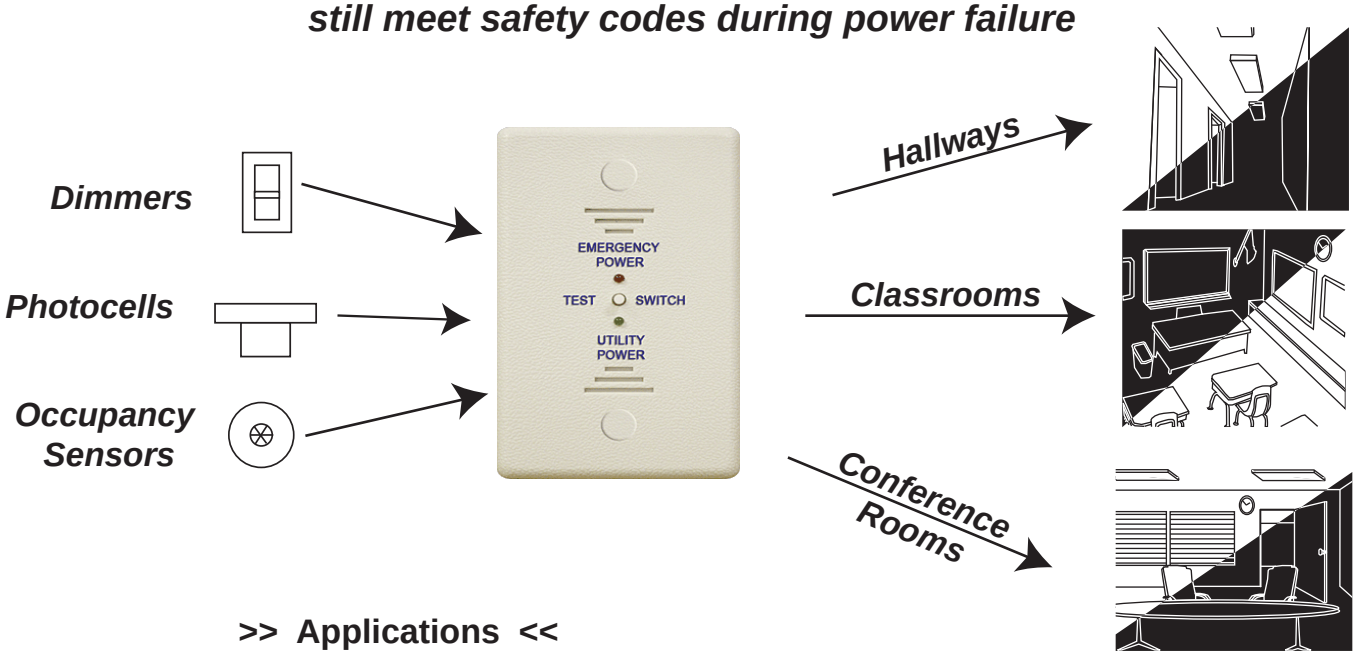
MODEL EPC-1-D

UL924 LISTED
EMERGENCY LIGHTING
EQUIPMENT
73PK

Emergency Power Dimmer Control With Automatic Diagnostic and Manual Test Features

FOR 4 WIRE DIMMABLE LOADS (0-10V and Low Voltage Digital Dimming)

Save maximum energy through dimming & still meet safety codes during power failure



>> Applications <<

Model EPC-1-D allows switching & dimming of designated emergency luminaires during normal operation & automatically brings emergency luminaires to full brightness during a utility power interruption.

- 0-10V Dimming Controls
- Low Voltage Digital Dimming Systems including DALI, and others.

Active 0-10V / Digital Override Universal Compatibility

Actively drives emergency loads to full bright during power interruption and testing, ensuring compliance with code and compatibility with all controls and loads without the need for an additional 20A branch transfer switch.

Patented Automatic Diagnostic Exclusive LVS Feature

2.5 second automatic diagnostic checks emergency source, EPC-1-D, ballast, & lamp(s).

Eliminates manual monthly testing and is approved for this purpose.

Integral Test Switch & LED Status Indicators

Integral test switch for easy initial footcandle verification

Power indicator LED's verify wiring & simplify troubleshooting

Power Supervision Redundancy

Emergency luminaire and red supervision LED will not illuminate if emergency supply is disconnected during normal operation

Provides Immediately Visible warnings

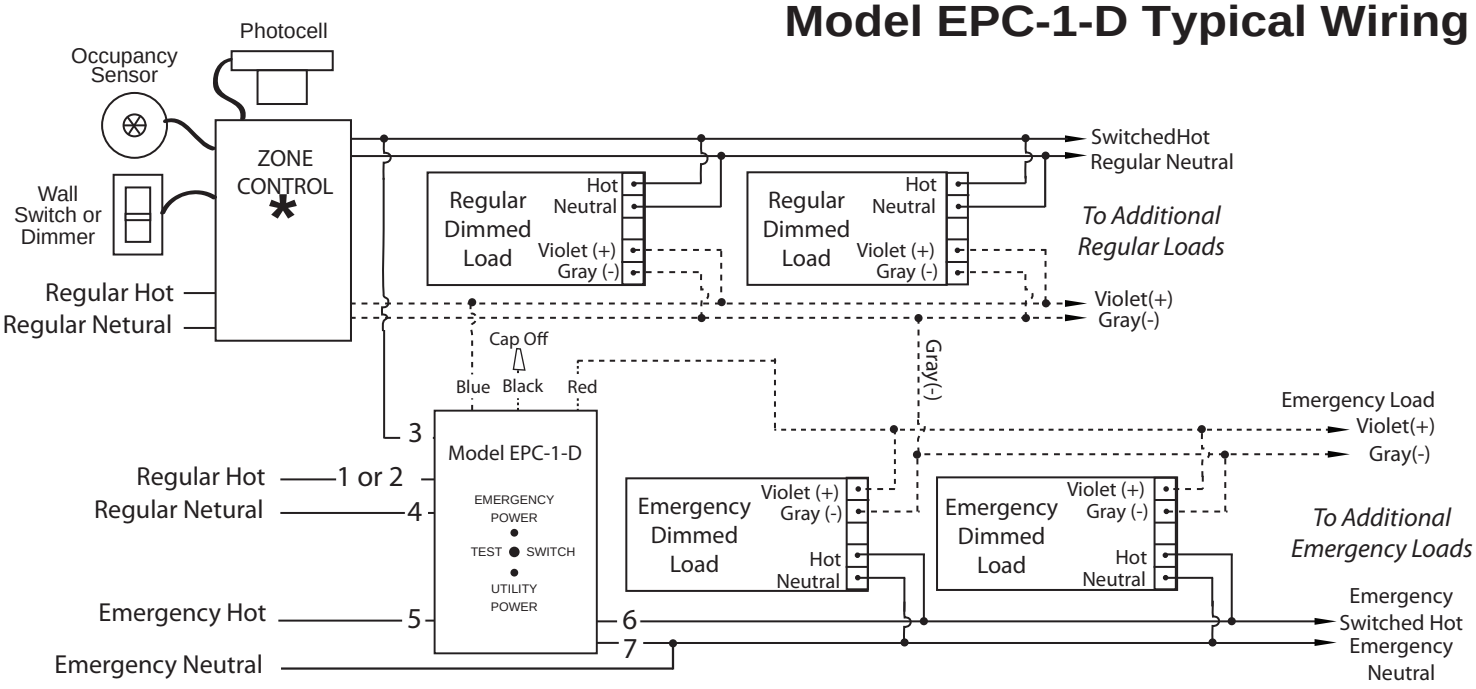
LVS Emergency Power Controls are tested, approved, and listed by Underwriters Laboratories under UL 924 standards for designated emergency light fixture controls. They meet and exceed all pertinent code requirements from NEC, NFPA, OSHA, and life safety codes, in addition to major local codes.

All model EPC-1-D units are tested during production and burned in upon completion.

5 YEAR LIMTED WARRANTY

LVS, Inc. 2555 Nicholson St., San Leandro, CA 94577
Tel: 1-800-982-4587 Fax: 1-510-352-6707 www.lvscontrols.com

Model EPC-1-D Typical Wiring



REGULAR POWER WIRING		
Wire #	Color	Connection
1	Black	Regular Hot (120V)
2	Orange	Regular Hot (277V)
3	Red	Switched Hot
4	White	Regular Neutral

EMERGENCY POWER WIRING		
Wire #	Color	Connection
5	Blue	Emergency Hot
6	Yellow	Emergency Load Hot
7	White/Blue Stripe	Emergency Neutral

PLENUM CABLE B LOW VOLTAGE WIRING	
Blue	Dimmer Violet(+)
Red	Emergency Load Violet(+)
Black	Cap Off

* NOTE: Zone Control device can be any combination of the following:
a) Intelligent zone controller including both low voltage dimming output & line voltage switching output.
b) Line voltage switching devices (such as occupancy sensor contact, time clock, relay panel) & low voltage dimming devices including photocells, wall dimmers, & other low voltage dimming signals (0-10V or digital).

See p.4 for alternate wiring diagrams and frequently asked questions

Theory of Operation

- ***Normal Operation:*** The zone control device turns on and off both regular and emergency luminaires simultaneously. The zone dimmer control dims regular and emergency luminaires simultaneously. Switched and dimmed control of emergency luminaires is accomplished through **Emergency Power Dimmer Control, EPC-1-D.**

- ***Emergency Operation:*** Wire input #1 or #2 and neutral are connected internally to a utility power sensing circuit. During a utility power interruption, the **EPC-1-D** energizes wire #6, which switches on emergency load(s) regardless of switch position. Additionally, the low voltage dimming circuit is disconnected from the emergency load(s), which are then brought to full brightness (100%), regardless of dimmer position.

- ***Automatic Diagnostic & Testing Operation:*** When the zone control is turned off, such as at the end of the day, the emergency luminaires stay on at full brightness for 2.5 seconds & indicate that an emergency power source was available & that the EPC-1-D, ballast, & lamp(s) are all functioning correctly. This satisfies the monthly test requirement required by law. When extended duration testing is desired, such as during initial start-up foot candle readings, the manual test button can be pressed.

- ***Emergency Power Clarification:*** Emergency Line power is supplied at all times from a 24 hour emergency power panel. During normal time this panel is suppled with utility power. During a utility power failure, it is supplied with generator or equivalent power.

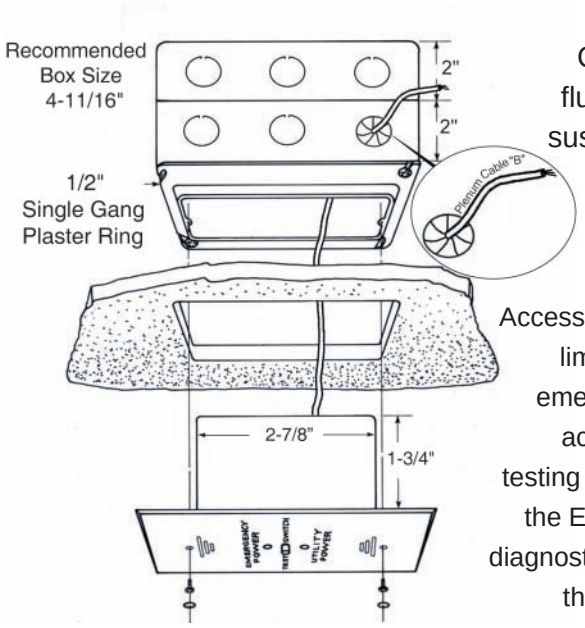
Electrical Specifications

Dual Voltage: 120V/277V Sensing Input , 120V/277V Load
20 Amp Ballast Load Rating
1800W Incandescent Load Rating at 120V
1500W Incandescent Load Rating at 277V
Voltage Surge Protection
UL924 Listed

Mechanical Specifications

Shipping Weight: 8 oz | Color : White
Temperature: 32˚F - 140˚F
Flush Mounted Size: 4-3/4” x 2-3/4” x 1/4”
Body Size: 2-7/8” x 1-3/4” x 1-3/4
UL94-5VA Rating: Safe for installation above the suspended ceiling.

Mounting



Can be mounted flush or above the suspended ceiling *

Accessibility requiements limit the mounting of emergency controls to accessible areas for testing reasons, however the EPC-1-D automatic diagnostic exempts it from these requirements.

Initial Testing, Troubleshooting & Maintenance of EPC-1-D

In a new installation, where 10 or 100 separate devices may be used, each having as many as 14 wires to be correctly connected, it is important that a fast convenient method is used to check the connections. In order to test that the wires are connected correctly, without any inconvenience to other occupants, do not turn off regular utility supplied power or turn on the emergency generator until you have checked each EPC-1-D device and light fixtures using the following methods.

When room switch is on & dimmer is at full-bright setting, emergency & regular fixtures should be illuminated at full-bright.

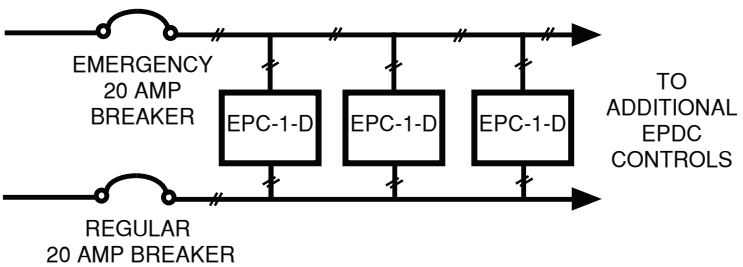
1) To test normal operation, ensure branch circuit breaker is connected and utility power is available. If green LED is not illuminated, confirm wiring connections and continuity to branch panels.

2) To test emergency operation, ensure emergency source is connected and red LED is illuminated. Turn room switch to “OFF” position, and ensure that emergency lights stay illuminated for at least 2.5 seconds. If emergency lights do not stay on for at least 2.5 seconds, confirm wiring connections and continuity to emergency panel and emergency power source.

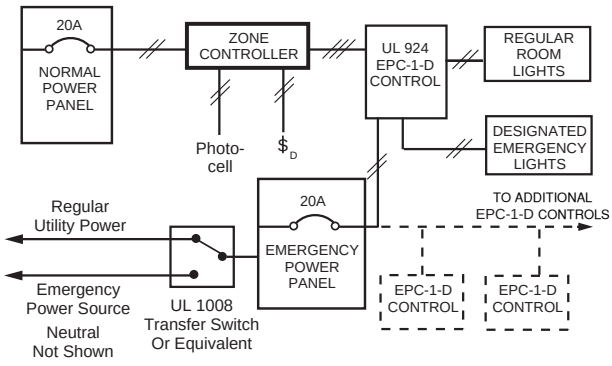
No maintenance is required to keep the EPC-1-D functional. However, regular testing should be performed when the lamps or ballasts have been replaced or when facility remodeling has taken place.

Single Line Drawings

On a 20 Amp circuit, 1 Model EPC-1-D can control up to 20 Amp of emergency lighting load, or 20 emergency power controls can each control 1 amp of emergency lighting load.



STANDARD ZONE CONTROLLER LINE DRAWING



Frequently Asked Questions

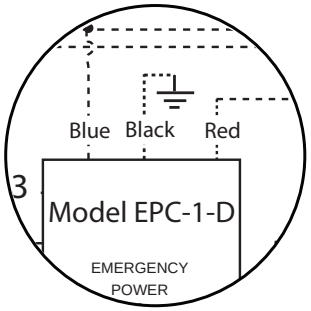
Question: What if there is only 1 light fixture in the room? What if all light fixtures are emergency fixtures?
Answer: Follow the standard wiring diagram on p.2. Treat the fixture(s) as "emergency dimmed loads" & follow standard wiring diagram on p.2. "Regular dimmed load" is not used in this application.

Question: What if using a digital low voltage dimmer control & ballasts, such as DALI protocol?
Answer: Follow the standard wiring diagram on p.2. Violet and Gray leads will be designated as "D1,D2" or equivalent for digital low voltage signal. If no line voltage switch is used, see Alternate Wiring C, below.

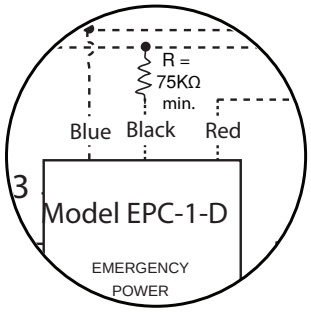
Special Applications/Alternate Wiring for EPC-1-D

The wide range of 0-10V controls and loads available has led to a number of different requirements and standards. The EPC-1-D is designed to accomodate many alternate or special applications, and to ensure proper operation for all ballast or controller manufacturers. If the application required is not listed below, contact LVS, Inc. at 1-800-982-4587 for a custom wiring diagram.

Alternate Wiring Diagram "A"

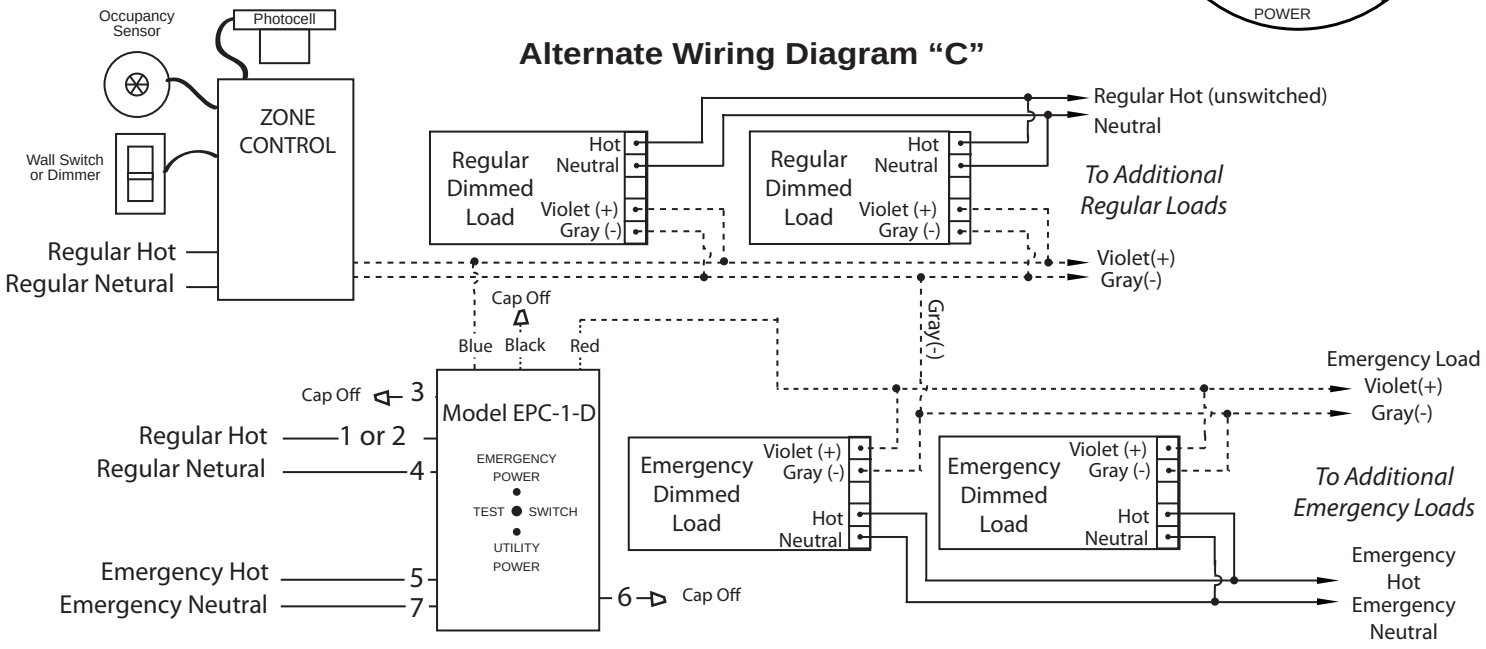


Alternate Wiring Diagram "B"



A **When grounding of the low voltage input of a ballast is required during emergency operation:**
Use Alternate Diagram "A." Plenum Cable B Black to ground, all line voltage leads are identical.

B **When a minimum resistive load is required on the low voltage input of a ballast during emergency operation:**
Use Alternate Diagram "B." Connect a resistor (minimum resistance 75KΩ) between Plenum Cable B black lead and gray input of emergency ballasts, all line voltage leads are identical.

C **When using a digital low voltage dimmer control with no line voltage switching:**
Use Alternate Diagram "C." Please note that for this application the automatic diagnostic feature does not function, therefore manual monthly testing is required by NEC.

Alternate Wiring Diagram "C"