



STAND-ALONE CLC SYSTEMS SUBMITTALS FOR RELEASE

ELECTRICAL DISTRIBUTOR / DEALER RELEASE

<input type="checkbox"/> Accepted
<input type="checkbox"/> Accepted with Notations
<input type="checkbox"/> Revise & Resubmit
<input type="checkbox"/> Rejected
SIGNATURE _____ DATE _____
TYPED / PRINTED NAME _____
COMPANY _____



PLEASE ENSURE THAT YOU
HAVE THE LATEST VERSION OF
DRAWINGS FOR THIS PROJECT

SCAN THE QR CODE ABOVE TO
DOWNLOAD THE CURRENT
CRESTRON DRAWING SET

SIGNING HERE INDICATES RESPONSIBILITY FOR THE FOLLOWING:

1. THE PIECES PARTS AND SERVICES REQUIRED TO MEET THIS PROJECTS LIGHTING CONTROL INTENT.
2. LUMINAIRE LOAD TYPES ARE COMPATIBLE WITH WITH THE CONTROLS SHOWN AND ARE ACCURATELY CAPTURED IN THE LOAD SCHEDULE.
3. COLORS AND FINISHES ARE ACCURATE ON THE ATTACHED PURCHASE ORDER.

ITEMS REQUIRED FOR EQUIPMENT SHIPMENT:

1. ELECTRICAL DISTRIBUTOR / DEALER RELEASE INTENT BY SIGNING THIS FORM
2. DISTRIBUTOR RELEASE PO
3. CRESTRON SALES REPRESENTATIVE PO
4. CRESTRON SALES REPRESENTATIVE STAND-ALONE SERVICES WORK SHEET

THESE FOUR DOCUMENTS SHOULD BE SENT TO
CLCORDERS@CRESTRON.COM.

UPON RECEIPT THE PROJECT WILL BE CHECKED FOR
COMPLETENESS AND PROCESSED FOR RELEASE.

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.

System Start-up

- Three weeks prior to needing commissioning, the electrical contractor must fill out and submit the System Commissioning Forms on the following pages.
- In order to accomplish the system commissioning, the Crestron field engineer must have full access to the jobsite during normal business hours, 8am-5pm local time. An additional premium rate will apply if work must be performed outside of normal business hours or at night, on weekends, or on nationally-recognized holidays.
- In order to commission the system, the Crestron field engineer must be able to access all equipment. If this access is only available via ladder or lift, it is the contractor's responsibility to provide such equipment and all related safety gear required for proper access.

WARNING

THIS DOCUMENT SET DOES NOT DESCRIBE AN INSTALLABLE SYSTEM UNTIL IT HAS BEEN REVIEWED FOR CODE COMPLIANCE BY THE PROJECT ELECTRICAL ENGINEER. 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.

DRAWING SET REVISION HISTORY

REV	DATE	ENG	REVISION DESCRIPTION
0			INITIAL SUBMITTAL

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.

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.

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.

Ethernet

- Ethernet infrastructure to support and troubleshoot operation of the equipment in this submittal, except where specifically shown as "BY CRESTRON", shall be furnished & configured by others.
- An Ethernet connection to allow contact between the processor and an Internet time server is the most reliable way to update the system astronomical time clocks to keep the system time accurate in a multiple processor system.
- Even when not specifically required by the project, Crestron strongly recommends providing an Ethernet connection to the Crestron processor(s) to allow for remote system updates and troubleshooting. If an Ethernet connection cannot be provided Crestron will request a signed waiver noting the understanding that remote access is not being given and additional troubleshooting trips may be required.
- Static IP addresses or other system-specific configuration that must be implemented on Crestron-provided equipment must be provided to Crestron prior to the technician's arrival onsite.

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.



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

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Tel: 888-273-7876
Fax: 201-767-6011
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COVER PAGE AND
DRAWING INDEX

DRAWING:
01.0
REV:02



Crestron Commercial Lighting Control Systems Electronic System Commissioning Request

CLCS Commissioning Requests must be received three weeks prior to the time Crestron is to arrive on site. The 3 week lead time is necessary to review all system documentation, ensure that documentation is complete and accurate, obtain any missing information, as well as program the system, prior to arriving on-site.

Crestron will not schedule on-site visits, until all information below is verified as being complete by a Crestron Project MANAGER. Please contact your CLCS Project MANAGER to help you complete these forms if you have ANY questions.

CANCELLATION POLICY: If a Start-Up Request Form has been submitted and confirmed, and appropriate travel arrangements have been made (ie. flight, train, car rental, hotel, etc.) requestee will be held responsible for all associated cancellation fees. Crestron will invoice purchasee all associated cancellation fees. Failure of back-charge payment will void all system warranty.

All Start-Up requests are now completed electronically. Follow the instructions below to download the "Canvas Plus" application for your iOS and Droid devices.

Instructions

STEP1: Download the Canvas Plus App

For iPhone & iPad users, Click on this link: <https://itunes.apple.com/us/app/canvas-plus/id482034211?mt=8>

Or scan this QR Code:



For Android users, open the Android Marketplace, search for canvas, click and download the canvas plus app created by Canvas Solutions Inc.

Or scan this QR Code:



For other PC & Mobile Operating Systems: go to this link <http://www.gocanvas.com/m> and select the mobile operation system you are using.

Or scan this QR Code:



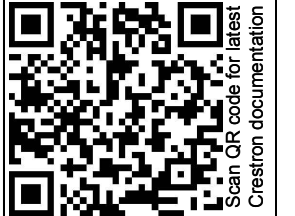
STEP 2: Log on

- User Name: electrical.contractor@crestron.com
- Password: crestron07647

STEP 3:

Select "Commissioning Form" and click START

Project #: _____ Project Name: _____



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CRESTRON	PROJECT:			
	LOCATION:		ORDER #:	
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	DISTRIBUTOR:			
<p>15 Volvo Drive Rockleigh NJ 07647 Tel: 888-273-7876 Fax: 201-767-6011 www.crestron.com</p>				
<p>TITLE: SYSTEM ELECTRONIC COMMISSIONING REQUEST FORM DRAWING: 02.1 REV:02</p>				

CALCULATING POWER USED AND MAXIMUM CABLE LENGTH

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.

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

CABLE IDENTIFICATION BLOCK

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, IT 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 CRESTRON 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.

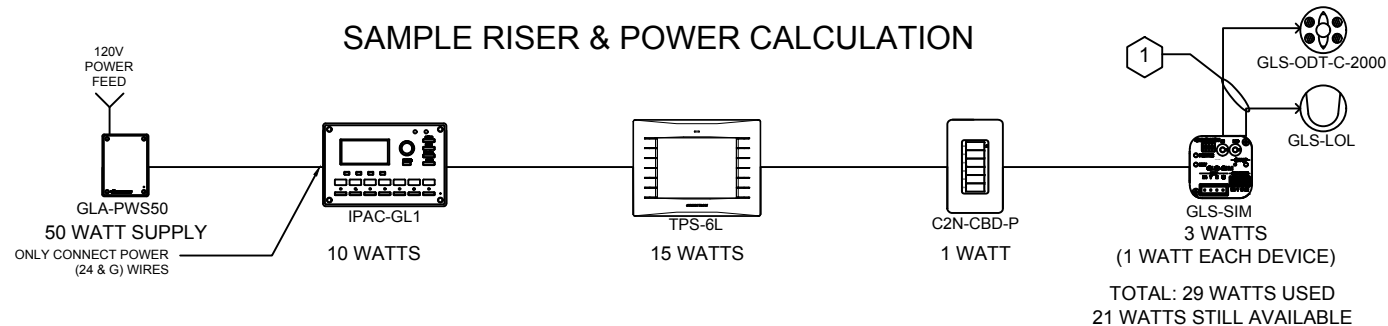
THE CRESNET POWER CALCULATION:

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



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.

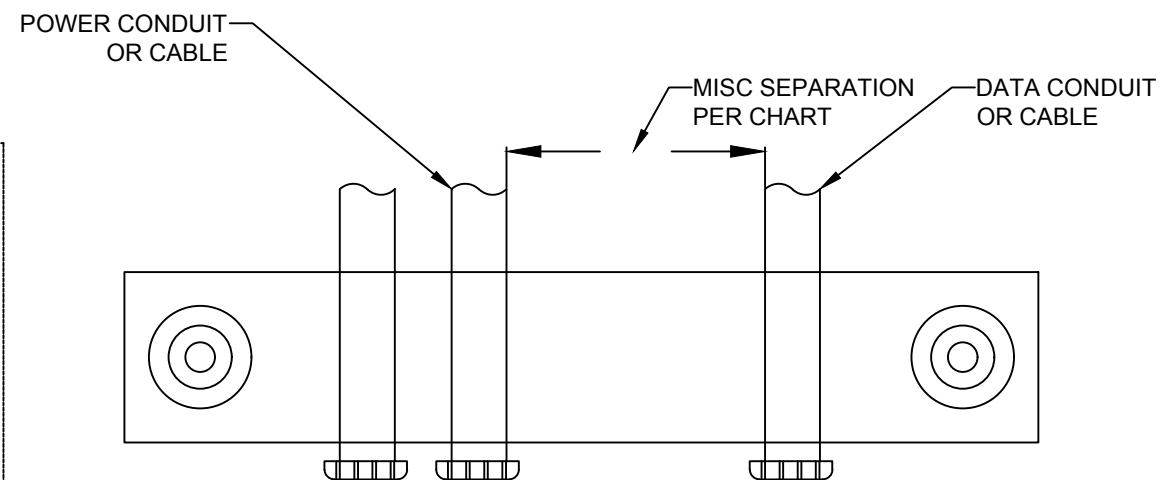
29 WATTS X 6 OHMS = 174
 40,000 DIVIDED BY 174 GIVES YOU A RESULT OF A MAXIMUM CABLE RUN OF 230 FEET.

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

29 WATTS x 1.6 OHMS = 46.4
 40,000 DIVIDED BY 46.4 GIVES YOU A MAXIMUM LENGTH OF 862 FEET.

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

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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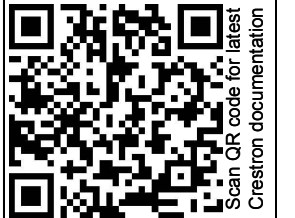
PROJECT: ORDER #:
 LOCATION: PO #:
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 Tel: 888-273-7876
 Fax: 201-767-6011
 www.crestron.com

TITLE:
 CRESNET POWER
 CALCULATIONS

DRAWING:
 02.3
 REV:02

Bill of Materials			
Panel ID:			
QTY	PART #	DESCRIPTION	
	GLPAC-DIMFLV4	GREENLIGHT AUTOMATION PROCESSOR, 4 CHANNELS 0-10V DIMMING OR SWITCHING	
	GLPAC-DIMFLV8	GREENLIGHT AUTOMATION PROCESSOR, 8 CHANNELS 0-10V DIMMING OR SWITCHING	
KEYPADS			
QTY	PART #	DESCRIPTION	COLOR
	C2N-CBD-P	CAMEO STYLE KEYPAD, 2-8 BUTTON FIELD CONFIGURABLE, WITH 2 VERSIPOINTS	
SENSORS			
QTY	PART #	DESCRIPTION	
	GLS-ODT-C-NS	DUAL TECHNOLOGY OCCUPANCY SENSOR, CEILING MOUNT, 2000 Sq. Ft., ADJ.	
	GLS-LOL	INTERIOR OPEN LOOP PHOTOCELL	
	GLS-LCL	INTERIOR CLOSED LOOP PHOTOCELL	
	GLS-LEXT	EXTERIOR OPEN LOOP PHOTOCELL	
	C2N-SDC	SHADE & DRAPE CONTROLLER, LINE VOLTAGE	
	GLS-PLS-120/277	UL924 PHASE LOSS SENSOR	
MISCELLANEOUS			
QTY	PART #	DESCRIPTION	
	GLA-EPC-1-D	UL924 AUTOMATIC LOAD CONTROL RELAY FOR SWITCHING OR 4-WIRE DIMMING LOADS	
	GLS-SIM	SENSOR INTEGRATION MODULE	
	GLA-PWS50	50 WATT POWER SUPPLY, 120V	
	GLS-PLS-120/277	UL924 PHASE LOSS SENSOR	
	C2N-SDC	SHADE & DRAPE CONTROLLER, LINE VOLTAGE	
	GLS-PLS-120/277	UL924 PHASE LOSS SENSOR	



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PROJECT:	ORDER #:
LOCATION:	PO #:
QUOTE #:	SALES REP:
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TITLE:
 BILL OF MATERIALS

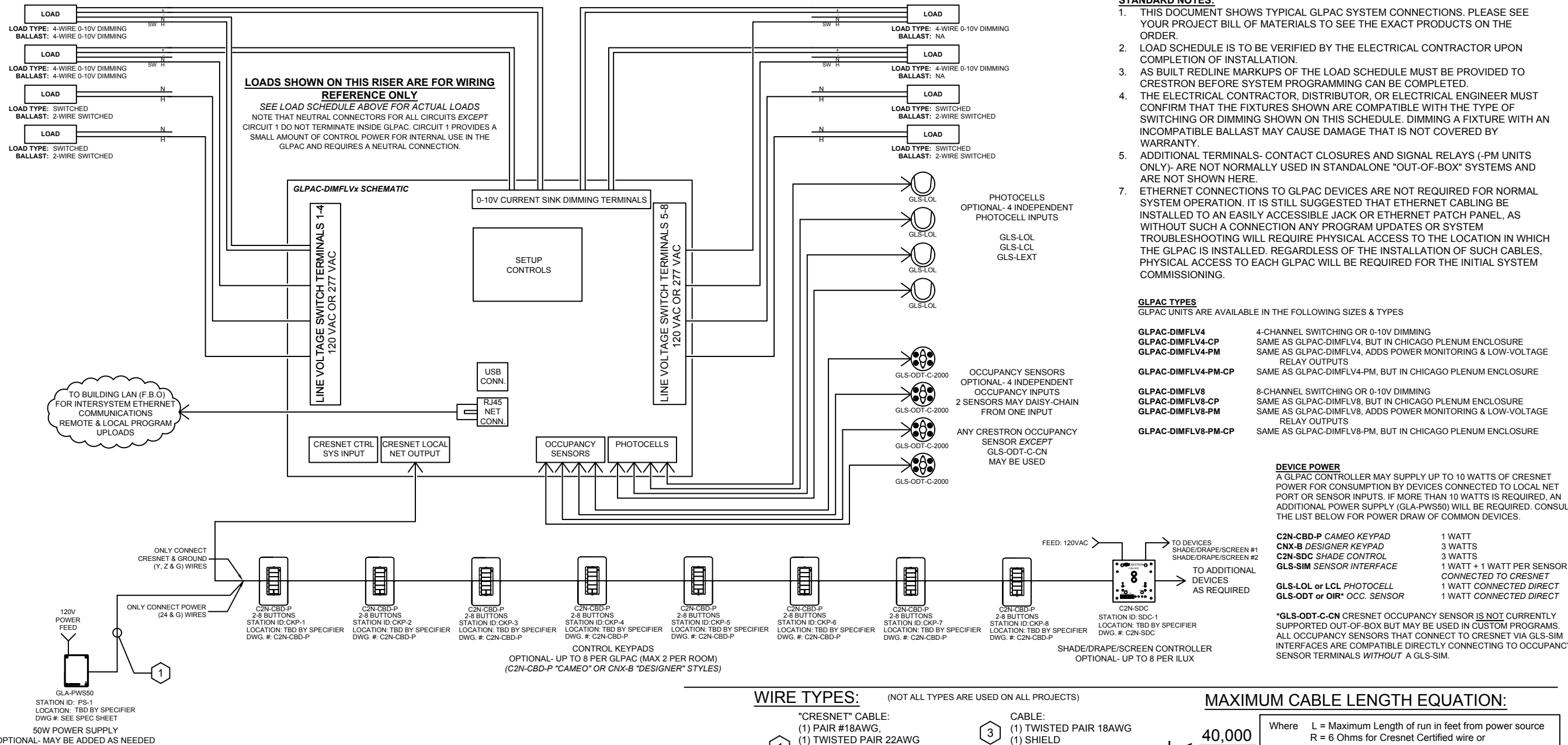
DRAWING:
 03.0
 REV:02

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.

LOAD SCHEDULE

DEVICE NAME:			DEVICE LOCATION:						
AREA / ROOM	ZONE	DESCRIPTION	OUT PUT	FIXTURE TYPE	LOAD TYPE	DIM	FIXTURE WATTAGE	QTY	CIRCUIT WATTAGE
			1						
			2						
			3						
			4						
			5						
			6						
			7						
			8						



STANDARD NOTES:

- THIS DOCUMENT SHOWS TYPICAL GLPAC SYSTEM CONNECTIONS. PLEASE SEE YOUR PROJECT BILL OF MATERIALS TO SEE THE EXACT PRODUCTS ON THE ORDER.
- LOAD SCHEDULE IS TO BE VERIFIED BY THE ELECTRICAL CONTRACTOR UPON COMPLETION OF INSTALLATION.
- AS BUILT REDLINE MARKUPS OF THE LOAD SCHEDULE MUST BE PROVIDED TO CRESTRON BEFORE SYSTEM PROGRAMMING CAN BE COMPLETED.
- THE ELECTRICAL CONTRACTOR, DISTRIBUTOR, OR ELECTRICAL ENGINEER MUST CONFIRM THAT THE FIXTURES SHOWN ARE COMPATIBLE WITH THE TYPE OF SWITCHING OR DIMMING SHOWN ON THIS SCHEDULE. DIMMING A FIXTURE WITH AN INCOMPATIBLE BALLAST MAY CAUSE DAMAGE THAT IS NOT COVERED BY WARRANTY.
- ADDITIONAL TERMINALS- CONTACT CLOSURES AND SIGNAL RELAYS (-PM UNITS ONLY)- ARE NOT NORMALLY USED IN STANDALONE "OUT-OF-BOX" SYSTEMS AND ARE NOT SHOWN HERE.
- ETHERNET CONNECTIONS TO GLPAC DEVICES ARE NOT REQUIRED FOR NORMAL SYSTEM OPERATION. IT IS STILL SUGGESTED THAT ETHERNET CABLING BE INSTALLED TO AN EASILY ACCESSIBLE JACK OR ETHERNET PATCH PANEL, AS WITHOUT SUCH A CONNECTION ANY PROGRAM UPDATES OR SYSTEM TROUBLESHOOTING WILL REQUIRE PHYSICAL ACCESS TO THE LOCATION IN WHICH THE GLPAC IS INSTALLED. REGARDLESS OF THE INSTALLATION OF SUCH CABLES, PHYSICAL ACCESS TO EACH GLPAC WILL BE REQUIRED FOR THE INITIAL SYSTEM COMMISSIONING.

GLPAC TYPES

- GLPAC UNITS ARE AVAILABLE IN THE FOLLOWING SIZES & TYPES
- GLPAC-DIMFLV4**: 4-CHANNEL SWITCHING OR 0-10V DIMMING. SAME AS GLPAC-DIMFLV4, BUT IN CHICAGO PLENUM ENCLOSURE.
 - GLPAC-DIMFLV4-CP**: SAME AS GLPAC-DIMFLV4, ADDS POWER MONITORING & LOW-VOLTAGE RELAY OUTPUTS.
 - GLPAC-DIMFLV4-PM-CP**: SAME AS GLPAC-DIMFLV4-PM, BUT IN CHICAGO PLENUM ENCLOSURE.
 - GLPAC-DIMFLV8**: 8-CHANNEL SWITCHING OR 0-10V DIMMING. SAME AS GLPAC-DIMFLV8, BUT IN CHICAGO PLENUM ENCLOSURE.
 - GLPAC-DIMFLV8-CP**: SAME AS GLPAC-DIMFLV8, ADDS POWER MONITORING & LOW-VOLTAGE RELAY OUTPUTS.
 - GLPAC-DIMFLV8-PM-CP**: SAME AS GLPAC-DIMFLV8-PM, BUT IN CHICAGO PLENUM ENCLOSURE.

DEVICE POWER

A GLPAC CONTROLLER MAY SUPPLY UP TO 10 WATTS OF CRESNET POWER FOR CONSUMPTION BY DEVICES CONNECTED TO LOCAL NET PORT OR SENSOR INPUTS. IF MORE THAN 10 WATTS IS REQUIRED, AN ADDITIONAL POWER SUPPLY (GLA-PWS50) WILL BE REQUIRED. CONSULT THE LIST BELOW FOR POWER DRAW OF COMMON DEVICES.

- C2N-CBD-P CAMEO KEYPAD**: 1 WATT
- CNX-B DESIGNER KEYPAD**: 3 WATTS
- C2N-SDC SHADE CONTROL**: 3 WATTS
- GLS-SIM SENSOR INTERFACE**: 1 WATT + 1 WATT PER SENSOR CONNECTED TO CRESNET
- GLS-L0L or LCL PHOTOCELL**: 1 WATT CONNECTED DIRECT
- GLS-ODT or OIR OCC. SENSOR**: 1 WATT CONNECTED DIRECT

*GLS-ODT-C-CN CRESNET OCCUPANCY SENSOR IS NOT CURRENTLY SUPPORTED OUT-OF-BOX BUT MAY BE USED IN CUSTOM PROGRAMS. ALL OCCUPANCY SENSORS THAT CONNECT TO CRESNET VIA GLS-SIM INTERFACES ARE COMPATIBLE DIRECTLY CONNECTING TO OCCUPANCY SENSOR TERMINALS WITHOUT A GLS-SIM.

WIRE TYPES: (NOT ALL TYPES ARE USED ON ALL PROJECTS)

- 1** "CRESNET" CABLE: (1) PAIR #18AWG, (1) TWISTED PAIR 22AWG W/SHIELD (BY E.C.)
NON-PLENUM PN: CRESNET-NP-TL
PLENUM PN: CRESNET-P-TL
- 2** RS-232 CABLE: (1) TWISTED PAIR 22AWG (1) SHIELD DB-9 CONNECTOR (BY E.C.)
- 3** CABLE: (1) TWISTED PAIR 18AWG (1) SHIELD (BY E.C.)
- 4** CABLE: CAT5E ETHERNET
- 5** SUITABLE GAUGE WIRE TO MEET LOAD REQUIREMENTS

ALL WIRE RUNS ARE TYPE 1, CRESNET, UNLESS OTHERWISE NOTED.

MAXIMUM CABLE LENGTH EQUATION:

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

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

SEE CRESNET WIRING INSTRUCTIONS, DWG. 02.3, FOR FULL DETAILS. LENGTH OF CRESNET WIRING RUNS ARE LIMITED TO # OF DEVICES AND CRESNET POWER DRAW. DAISY CHAIN AND OR STAR TOPOLOGIES ARE PERMITTED TO SUIT INSTALLATION NEEDS. EACH HOME RUN NOT TO EXCEED 20 CRESNET DEVICES. USE THE CALCULATOR SHOWN TO DETERMINE MAXIMUM WIRE RUN LENGTH. POWER SUPPLIES CAN BE ADDED TO INCREASE LENGTH OF HOME RUNS.

ALL PHYSICAL DEVICE LOCATIONS TO BE COORDINATED WITH ARCHITECT.



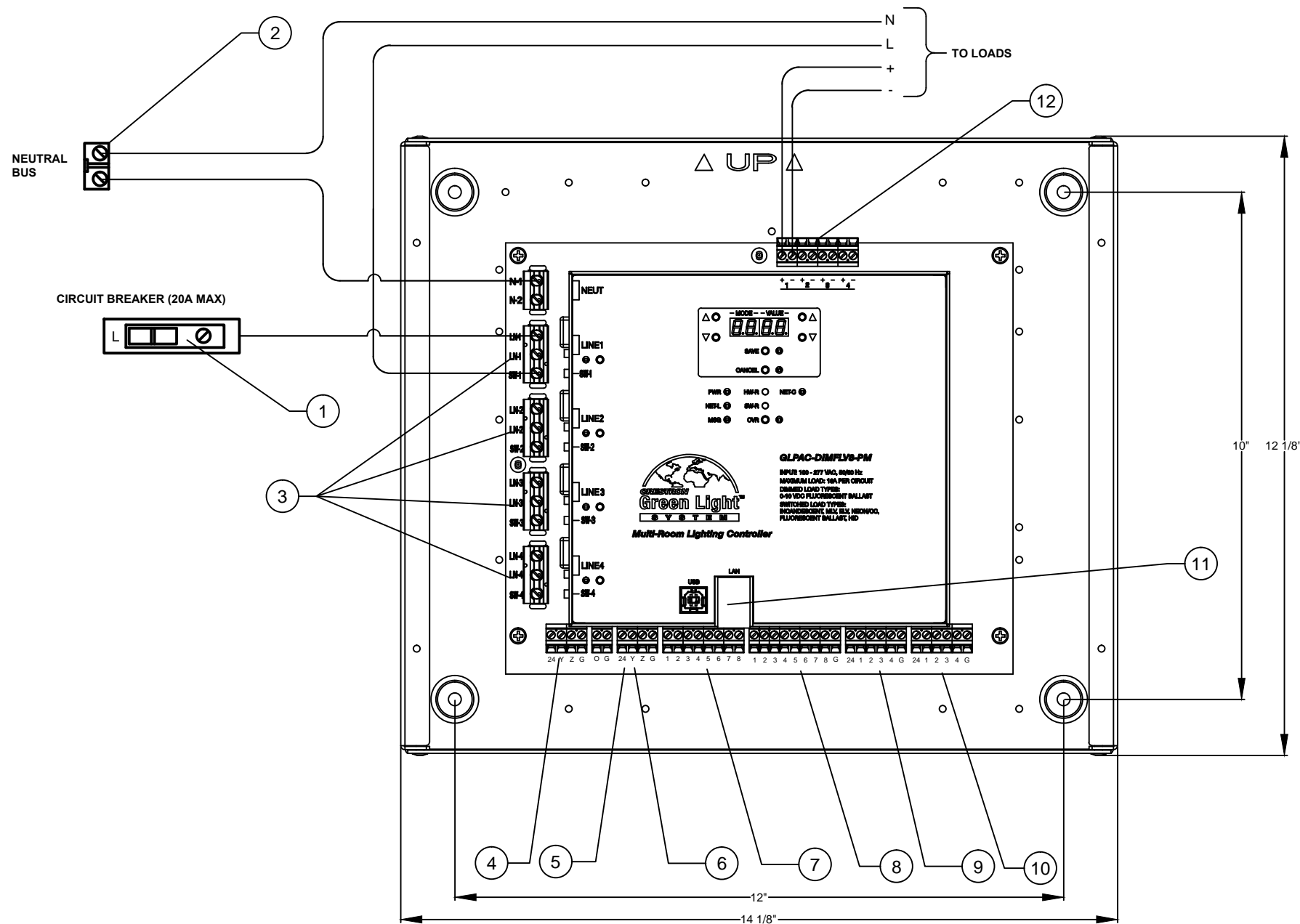
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 15 Volvo Drive
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TITLE: STANDALONE GLPAC RISER
 DRAWING: 04.0
 REV: 02

GLPAC-DIMFLV4 DIMMING MODULE



SPECIFICATIONS	
SPECIFICATION	DETAILS
INPUT VOLTAGE	100-277 VAC 50/60 Hz
DIMMER CHANNELS	4
SUPPORTED LOAD TYPES	FLUORESCENT BALLAST, INCANDESCENT, MAGNETIC LOW VOLTAGE, ELECTRONIC LOW VOLTAGE, NEON/COLD CATHODE, HIGH-INTENSITY DISCHARGE, MOTOR
MAXIMUM LOAD	16A PER OUTPUT
LOAD RELAY RATING	277 VAC, 50A
SIGNAL RELAY RATING	1A, 30 VOLTS DC
ENVIRONMENTAL TEMPERATURE HUMIDITY	32° TO 104°F (0° TO 40°C) 10% TO 90% RH, NON-CONDENSING
AVAILABLE CRESNET POWER	10 WATTS AT 24V DC, SHARED WITH OCCUPANCY AND PHOTOCCELL SENSOR PORTS

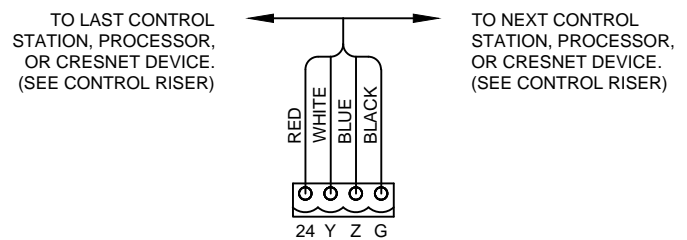
NOTES KEY

- ① CIRCUIT BREAKER (20A MAX) - BREAKER IS FURNISHED BY ELECTRICAL CONTRACTOR.
- ② NEUTRAL BUS BAR - BUS BAR IS INTEGRAL TO CIRCUIT BREAKER PANEL BOARD.
- ③ (2) LINE AND (1) LOAD TERMINAL FOR EACH OF (4) CIRCUITS. (SCREWS TO BE TORQUED TO 8 IN-LB)
- ④ MASTER CRESNET NETWORK CONNECTOR FOR COMMUNICATION TO BUILDING PROCESSOR.
- ⑤ EMERGENCY OVERRIDE INPUT FOR UL 924 COMPLIANCE
- ⑥ LOCAL CRESNET NETWORK CONNECTOR FOR COMMUNICATION LOCAL DEVICES.
- ⑦ SIGNAL RELAYS TO HVAC SYSTEMS (PM VERSION ONLY).
- ⑧ CONTACT CLOSURES.
- ⑨ (4) OCCUPANCY SENSOR INPUTS. 24V LOW VOLTAGE POWER PROVIDED.
- ⑩ (4) PHOTO SENSOR INPUTS. 24V LOW VOLTAGE POWER PROVIDED.
- ⑪ ETHERNET CONNECTION FOR SYSTEM CONFIGURATION.
- ⑫ 0-10V OUTPUT FOR DIMMING OF FIXTURES. USE CLASS 1 OR CLASS 2 WIRE. 0-10V OUTPUTS MUST CORRESPOND TO LINE OUTPUTS. MINIMUM GAUGE WIRE IS 18AWG.

GENERAL NOTES

1. 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.
2. MODULE SHIPS FROM WITH FACTORY INSTALLED JUMPERS ON EACH CIRCUIT. JUMPERS MUST BE REMOVED AT COMMISSIONING.
5. PANEL REQUIRES OVERCURRENT PROTECTION FROM AN EXTERNAL BREAKER PANEL (F.B.O.).

CRESNET CONTROL WIRING



PART #: GLPAC-DIMFLV4

DESCRIPTION: GLPAC-DIMFLV4

REVISION: 000

DATE: 4/13/2011

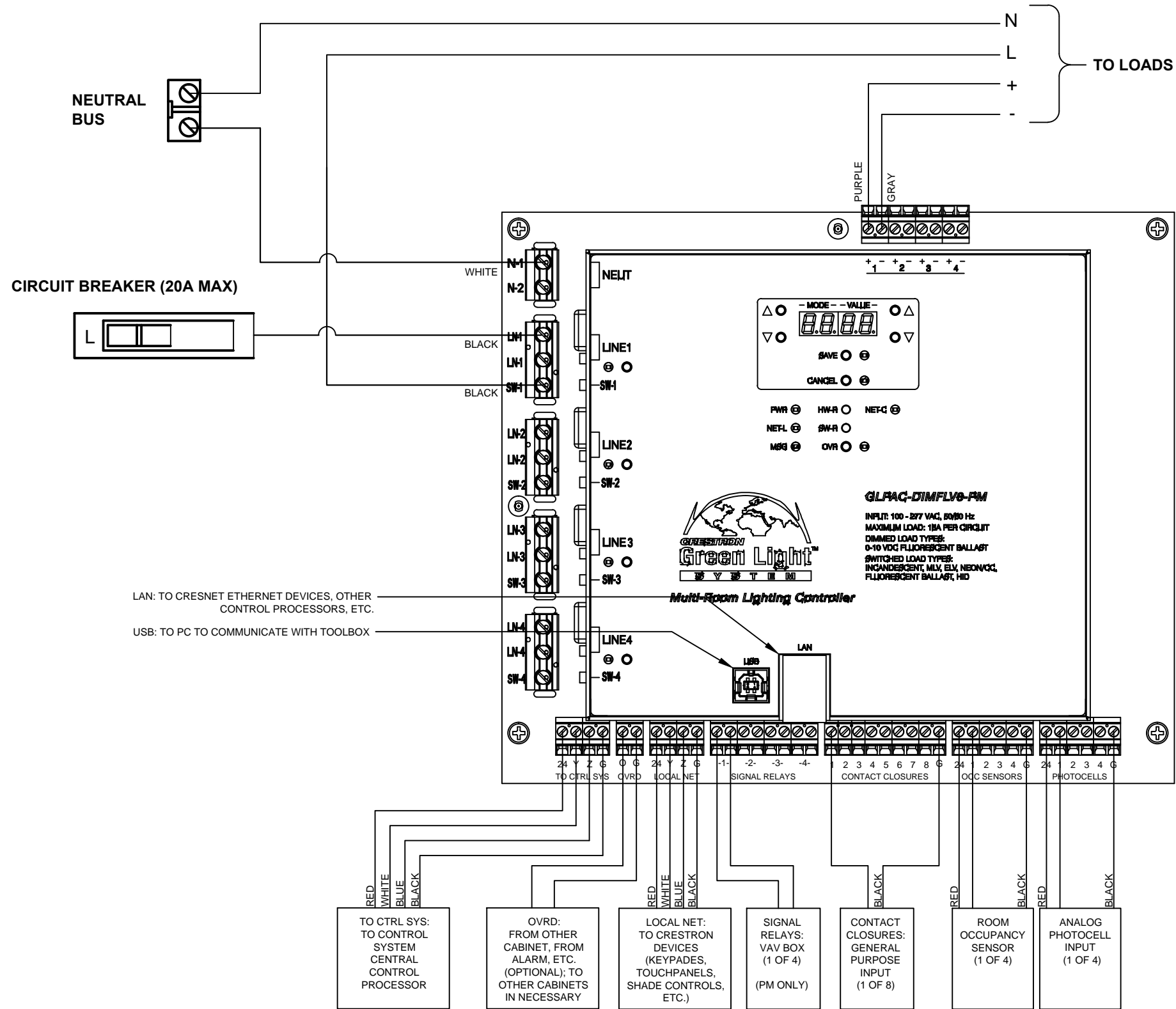
NOTES:



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

PART #: GLPAC-DIMFLV4

DRAWING: 1 OF 2



INSTALLATION

- OBSERVE THE FOLLOWING WHEN INSTALLING THE CABINET:**
- THE CABINET MUST BE MOUNTED BY A LICENSED ELECTRICIAN IN ACCORDANCE WITH ALL NATIONAL AND LOCAL CODES.
 - ALLOW ADEQUATE CLEARANCE (3" MINIMUM) IN FRONT OF CABINET FOR SERVICING.
 - THE CABINET IS DESIGNED FOR SURFACE MOUNTING ON A WALL.
 - CABINETS ARE INTENDED FOR INDOOR USE ONLY.

TORQUE			
TERMINAL	CONN. WIRE RANGE	TORQUE	STRIP LENGTH
LN INPUTS	14-10 AWG	4.42 LB-IN (0.5Nm)	5/16" (8MM)
SW INPUTS	14-10 AWG	4.42 LB-IN (0.5Nm)	5/16" (8MM)
N1, N1 NEUTRAL BUS	14-10 AWG	4.42 LB-IN (0.5Nm)	5/16" (8MM)
0-10V OUTPUTS*	28-12 AWG	4.42 LB-IN (0.5Nm)	5/16" (8MM)
GROUND LUG	14-4 AWG	25-45 LB-IN (2.8-5.1Nm)	3/4" (19MM)
LV CONNECTORS*	26-12 AWG	4.42 LB-IN (0.5Nm)	1/4" (6MM)

* MAY BE WIRED AS CLASS 1 OR CLASS 2

- LOAD WIRING:**
1. TURN OFF ALL CIRCUIT BREAKERS
 2. CONNECT THE NEUTRAL BUS AND GROUND LUGS
 3. CONNECT THE INCOMING FEED CONNECTORS TO THE 'LINE' AND 'N' INPUT TERMINALS (REFER TO DIAGRAM)

NOTE: WHEN FEEDING FROM A SINGLE BRANCH CIRCUIT, ADDITIONAL LINE TERMINALS ARE PROVIDED TO ALLOW FOR DAISY-CHAINING OF CHANNELS

4. CONNECT 0-10V CONTROL WIRES FOR THE DIMMED LOADS TO THE APPROPRIATE OUTPUT TERMINALS (1-8)
5. TEST THE CIRCUIT FOR ELECTRICAL FAULTS BY TURNING ON EACH CIRCUIT BREAKER, CHECKING THAT THE BREAKERS DO NOT TRIP, AND THAT POWER IS DELIVERED TO THE PROPER LOADS

NOTE: UNIT REQUIRES 'LINE1' AND NEUTRAL TO BE CONNECTED TO POWER UP

INPUT WIRING:

USE CRESTRON CERTIFIED WIRE SUCH AS CRESNET-NP OR CRESNET-P. TO ENSURE OPTIMUM PERFORMANCE OVER THE FULL RANGE OF YOUR INSTALLATION TOPOLOGY, USE CRESTRON CERTIFIED WIRE. FAILURE TO DO SO MAY INCUR ADDITIONAL CHARGES IF SUPPORT IS REQUIRED TO IDENTIFY PERFORMANCE DEFICIENCIES BECAUSE OF USING IMPROPER WIRE.

SEE DIAGRAM TO THE LEFT FOR WIRING OF REPRESENTATIVE DEVICES.

TESTING:

MANUAL CONTROL
LIGHTING LOADS CAN BE MANUALLY CONTROLLED FROM THE FRONT PANEL

OVERRIDE MODE
THE OVERRIDE MODE OVERRIDES THE CONTROL SYSTEM PROGRAM AND SETS ALL OF THE OUTPUT STATES TO THE STORED OVERRIDE VALUES (SEE BELOW)

TO ENABLE OVERRIDE, PRESS AND RELEASE THE 'OVR' BUTTON. THE 'OVR' LED FLASHES SLOWLY

NOTE: IF OVERRIDE MODE WAS ENABLED FROM AN EXTERNAL DEVICE (I.E. A CONTACT CLOSURE ON THE 'OVRD' TERMINALS, THE OVR LED WILL FLASH QUICKLY. PRESSING THE OVR BUTTON HAS NO EFFECT.

TO DISABLE OVERRIDE MODE, PRES THE OVR BUTTON AGAIN. THE OVR LED EXTINGUISHES AND THE OUTPUTS RETURN TO THE STATES SET BY THE CONTROL PROGRAM.

NOTE: IF OVERRIDE STATES HAVE NOT BEEN STORED, THE FACTORY DEFAULT IS "ALL ON"

SAVE OVERRIDE SETTINGS
THE STATE OF ALL OUTPUTS CAN BE SAVED AS AN OVERRIDE SETTING, WHICH IS AUTOMATICALLY RECALLED BY OVERRIDE MODE

NOTE: THE CONTROL SYSTEM PROGRAM CAN BE SET TO PREVENT LOCALLY CHANGING THE OVERRIDE STATE. IF THIS SETTING IS ENABLED, THE DISPLAY WILL SHOW "ERR" WHEN TRYING TO SAVE OVERRIDE STATES.

TO SAVE THE CURRENT STATE OF ALL OUTPUTS AS THE OVERRIDE SETTING, PRESS AND HOLD THE OVR BUTTON FOR 3 SECONDS, UNTIL THE LED BLINKS ONCE.

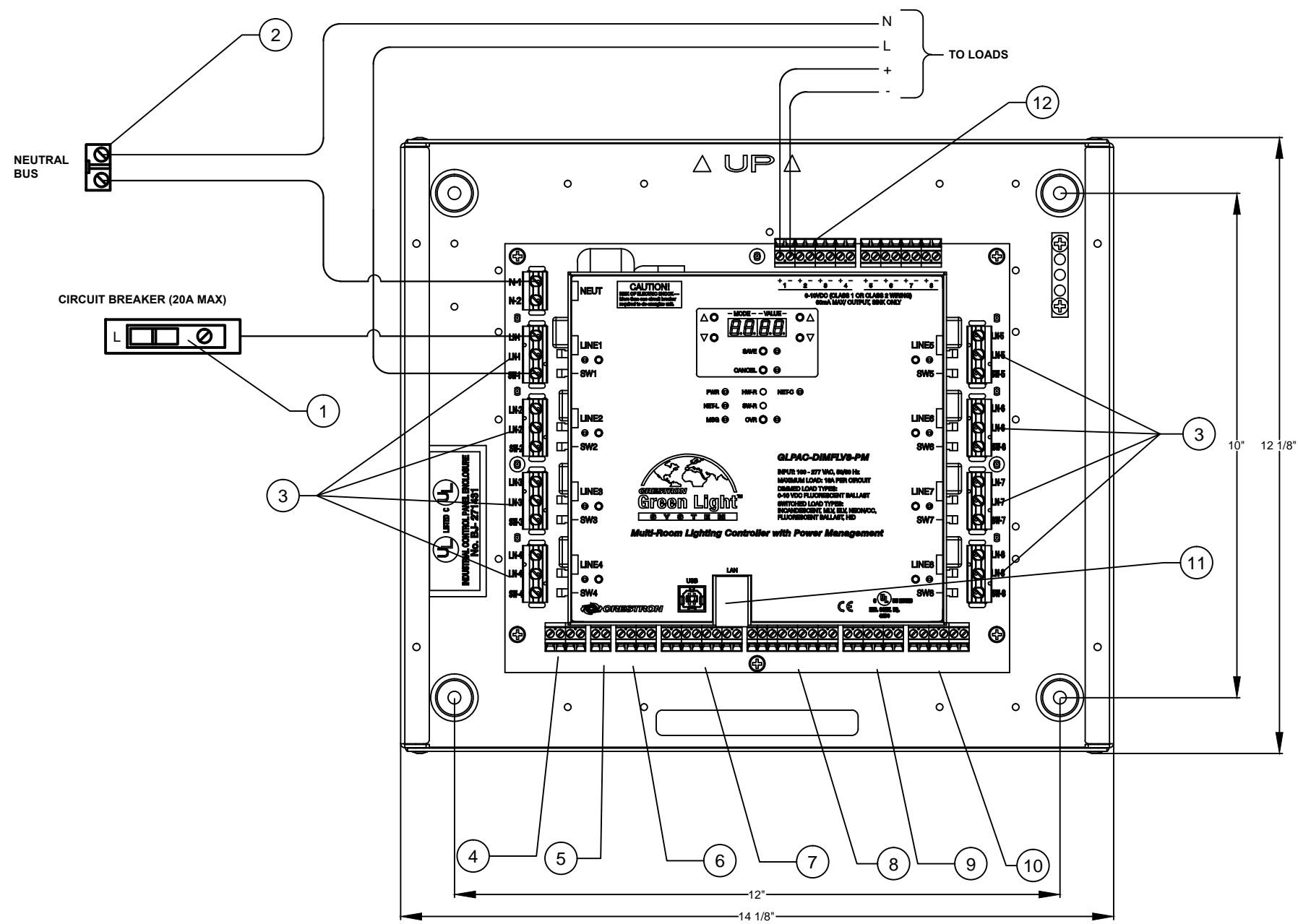


PART #: GLPAC-DIMFLV4
 DESCRIPTION: GLPAC-DIMFLV4
 REVISION: 000
 DATE: 4/13/2011

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

PART #: GLPAC-DIMFLV4
 DRAWING: 2 OF 2

GLPAC-DIMFLV8 DIMMING MODULE



SPECIFICATIONS	
SPECIFICATION	DETAILS
INPUT VOLTAGE	100-277 VAC 50/60 Hz
DIMMER CHANNELS	8
SUPPORTED LOAD TYPES	FLUORESCENT BALLAST, INCANDESCENT, MAGNETIC LOW VOLTAGE, ELECTRONIC LOW VOLTAGE, NEON/COLD CATHODE, HIGH-INTENSITY DISCHARGE, MOTOR
MAXIMUM LOAD	16A PER OUTPUT
LOAD RELAY RATING	277 VAC, 50A
SIGNAL RELAY RATING	1A, 30 VOLTS DC
ENVIRONMENTAL TEMPERATURE HUMIDITY	32° TO 104°F (0° TO 40°C) 10% TO 90% RH, NON-CONDENSING
AVAILABLE CRESNET POWER	10 WATTS AT 24V DC, SHARED WITH OCCUPANCY AND PHOTOCCELL SENSOR PORTS

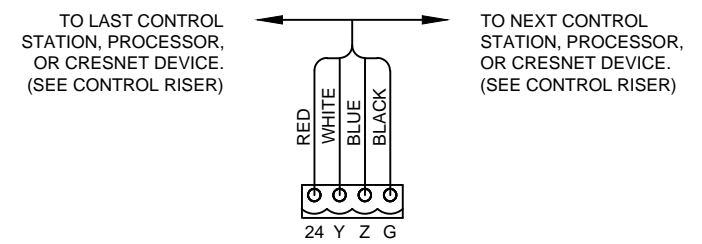
NOTES KEY

- 1 CIRCUIT BREAKER (20A MAX) - BREAKER IS FURNISHED BY ELECTRICAL CONTRACTOR.
- 2 NEUTRAL BUS BAR - BUS BAR IS INTEGRAL TO CIRCUIT BREAKER PANEL BOARD.
- 3 (2) LINE AND (1) LOAD TERMINAL FOR EACH OF (8) CIRCUITS. (SCREWS TO BE TORQUED TO 8 IN-LB)
- 4 MASTER CRESNET NETWORK CONNECTOR FOR COMMUNICATION TO BUILDING PROCESSOR.
- 5 EMERGENCY OVERRIDE INPUT FOR UL 924 COMPLIANCE
- 6 LOCAL CRESNET NETWORK CONNECTOR FOR COMMUNICATION LOCAL DEVICES.
- 7 SIGNAL RELAYS TO HVAC SYSTEMS (PM VERSION ONLY).
- 8 CONTACT CLOSURES.
- 9 (4) OCCUPANCY SENSOR INPUTS. 24V LOW VOLTAGE POWER PROVIDED.
- 10 (4) PHOTO SENSOR INPUTS. 24V LOW VOLTAGE POWER PROVIDED.
- 11 ETHERNET CONNECTION FOR SYSTEM CONFIGURATION.
- 12 0-10V OUTPUT FOR DIMMING OF FIXTURES. USE CLASS 1 OR CLASS 2 WIRE. 0-10V OUTPUTS MUST CORRESPOND TO LINE OUTPUTS. MINIMUM GAUGE WIRE IS 18AWG.

GENERAL NOTES

1. 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.
 2. MODULE SHIPS FROM WITH FACTORY INSTALLED JUMPERS ON EACH CIRCUIT. JUMPERS MUST BE REMOVED AT COMMISSIONING.
 3. PANEL REQUIRES OVERCURRENT PROTECTION FROM AN EXTERNAL BREAKER PANEL (F.B.O.).
 4. ANY GLPAC INCLUDING "-4E" IN THE PART NUMBER INCLUDES VOLTAGE BARRIERS SEPARATING LEFT & RIGHT SIDES TO ALLOW FOR 4 NORMAL AND 4 EMERGENCY CIRCUITS. PANEL ALSO INCLUDES "EMERGENCY CIRCUITS" LABEL. CIRCUITS 1-4 MUST BE USED FOR EMERGENCY; CIRCUIT 1 MUST BE LIVE FOR UNIT TO OPERATE.
- ALL GLPAC MODELS ARE AVAILABLE WITH EMERGENCY LABELING, BUT THIS MUST BE SPECIFIED AT THE TIME OF PROJECT RELEASE FOR LABEL TO BE ADDED.

CRESNET CONTROL WIRING



PART #: GLPAC-DIMFLV8

DESCRIPTION: GLPAC-DIMFLV8

REVISION: 003

DATE: 10/2/2015

NOTES:



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Tel: 888-273-7876
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PART #: GLPAC-DIMFLV8

DRAWING: 1 OF 2



INSTALLATION

OBSERVE THE FOLLOWING WHEN INSTALLING THE CABINET:

- THE CABINET MUST BE MOUNTED BY A LICENSED ELECTRICIAN IN ACCORDANCE WITH ALL NATIONAL AND LOCAL CODES.
- ALLOW ADEQUATE CLEARANCE (3' MINIMUM) IN FRONT OF CABINET FOR SERVICING.
- THE CABINET IS DESIGNED FOR SURFACE MOUNTING ON A WALL.
- CABINETS ARE INTENDED FOR INDOOR USE ONLY.

TORQUE			
TERMINAL	CONN. WIRE RANGE	TORQUE	STRIP LENGTH
LN INPUTS	14-10 AWG	4.42 LB-IN (0.5Nm)	5/16" (8MM)
SW INPUTS	14-10 AWG	4.42 LB-IN (0.5Nm)	5/16" (8MM)
N1, N1 NEUTRAL BUS	14-10 AWG	4.42 LB-IN (0.5Nm)	5/16" (8MM)
0-10V OUTPUTS*	28-12 AWG	4.42 LB-IN (0.5Nm)	5/16" (8MM)
GROUND LUG	14-4 AWG	25-45 LB-IN (2.8-5.1Nm)	3/4" (19MM)
LV CONNECTORS*	26-12 AWG	4.42 LB-IN (0.5Nm)	1/4" (6MM)

*MAY BE WIRED AS CLASS 1 OR CLASS 2

LOAD WIRING:

1. TURN OFF ALL CIRCUIT BREAKERS
2. CONNECT THE NEUTRAL BUS AND GROUND LUGS
3. CONNECT THE INCOMING FEED CONNECTORS TO THE 'LINE' AND 'N' INPUT TERMINALS (REFER TO DIAGRAM)

NOTE: WHEN FEEDING FROM A SINGLE BRANCH CIRCUIT, ADDITIONAL LINE TERMINALS ARE PROVIDED TO ALLOW FOR DAISY-CHAINING OF CHANNELS

4. CONNECT 0-10V CONTROL WIRES FOR THE DIMMED LOADS TO THE APPROPRIATE OUTPUT TERMINALS (1-8)
5. TEST THE CIRCUIT FOR ELECTRICAL FAULTS BY TURNING ON EACH CIRCUIT BREAKER, CHECKING THAT THE BREAKERS DO NOT TRIP, AND THAT POWER IS DELIVERED TO THE PROPER LOADS

NOTE: UNIT REQUIRES 'LINE1' AND NEUTRAL TO BE CONNECTED TO POWER UP ANY GLPAC INCLUDING "4E" IN THE PART NUMBER IS INTENDED FOR USE WITH LINES 1-4 POWERED FROM EMERGENCY POWER, 5-8 FROM NORMAL POWER.

INPUT WIRING:

USE CRESTRON CERTIFIED WIRE SUCH AS CRESNET-NP OR CRESNET-P. TO ENSURE OPTIMUM PERFORMANCE OVER THE FULL RANGE OF YOUR INSTALLATION TOPOLOGY, USE CRESTRON CERTIFIED WIRE. FAILURE TO DO SO MAY INCUR ADDITIONAL CHARGES IF SUPPORT IS REQUIRED TO IDENTIFY PERFORMANCE DEFICIENCIES BECAUSE OF USING IMPROPER WIRE.

SEE DIAGRAM TO THE LEFT FOR WIRING OF REPRESENTATIVE DEVICES.

TESTING:

MANUAL CONTROL
LIGHTING LOADS CAN BE MANUALLY CONTROLLED FROM THE FRONT PANEL

OVERRIDE MODE
THE OVERRIDE MODE OVERRIDES THE CONTROL SYSTEM PROGRAM AND SETS ALL OF THE OUTPUT STATES TO THE STORED OVERRIDE VALUES (SEE BELOW)

TO ENABLE OVERRIDE, PRESS AND RELEASE THE 'OVR' BUTTON. THE 'OVR' LED FLASHES SLOWLY

NOTE: IF OVERRIDE MODE WAS ENABLED FROM AN EXTERNAL DEVICE (I.E. A CONTACT CLOSURE ON THE 'OVRD' TERMINALS, THE OVR LED WILL FLASH QUICKLY. PRESSING THE OVR BUTTON HAS NO EFFECT.

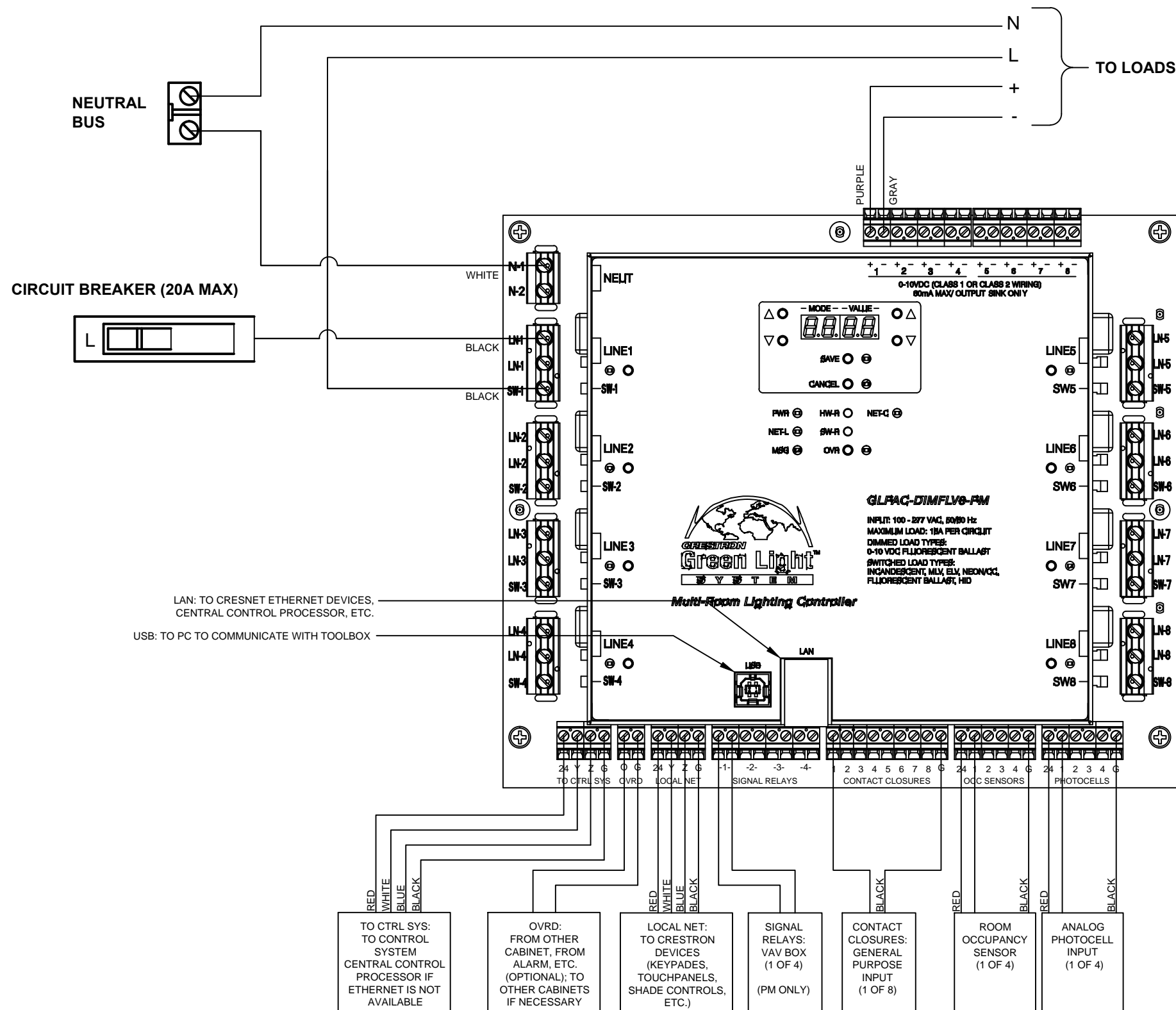
TO DISABLE OVERRIDE MODE, PRES THE OVR BUTTON AGAIN. THE OVR LED EXTINGUISHES AND THE OUTPUTS RETURN TO THE STATES SET BY THE CONTROL PROGRAM.

NOTE: IF OVERRIDE STATES HAVE NOT BEEN STORED, THE FACTORY DEFAULT IS "ALL ON"

SAVE OVERRIDE SETTINGS
THE STATE OF ALL OUTPUTS CAN BE SAVED AS AN OVERRIDE SETTING, WHICH IS AUTOMATICALLY RECALLED BY OVERRIDE MODE

NOTE: THE CONTROL SYSTEM PROGRAM CAN BE SET TO PREVENT LOCALLY CHANGING THE OVERRIDE STATE. IF THIS SETTING IS ENABLED, THE DISPLAY WILL SHOW "ERR" WHEN TRYING TO SAVE OVERRIDE STATES.

TO SAVE THE CURRENT STATE OF ALL OUTPUTS AS THE OVERRIDE SETTING, PRESS AND HOLD THE OVR BUTTON FOR 3 SECONDS, UNTIL THE LED BLINKS ONCE.



GLPAC-DIMFLV8-PM

INPUT: 100-277 VAC, 60/50 Hz
MAXIMUM LOAD: 18A PER CIRCUIT
DIMMED LOAD TYPES:
0-10 VDC FLUORESCENT BALLAST
SWITCHED LOAD TYPES:
INCANDESCENT, MLV, ELV, NEON/CCL,
FLUORESCENT BALLAST, HID

Multi-Room Lighting Controller

NOTE: ANY OCCUPANCY SENSOR WITH "-CN", i.e. GLS-ODT-C-CN CONNECTS TO THE "LOCAL NET" CRESNET TERMINALS ONLY



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PART #: GLPAC-DIMFLV8

DRAWING: 2 OF 2

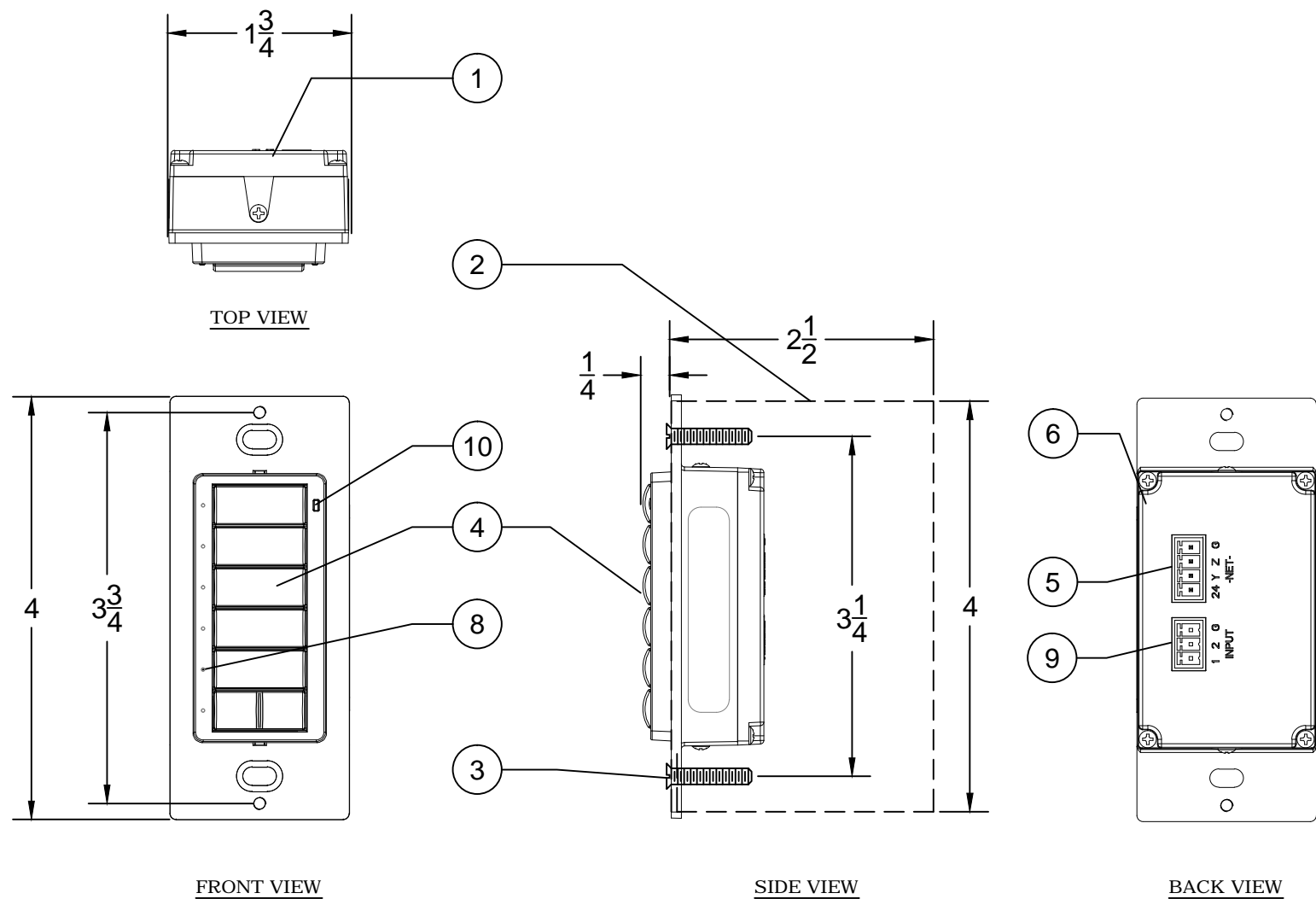
PART #: GLPAC-DIMFLV8

DESCRIPTION: GLPAC-DIMFLV8

REVISION: 003

DATE: 10/2/2015

NOTES:



NOTES KEY

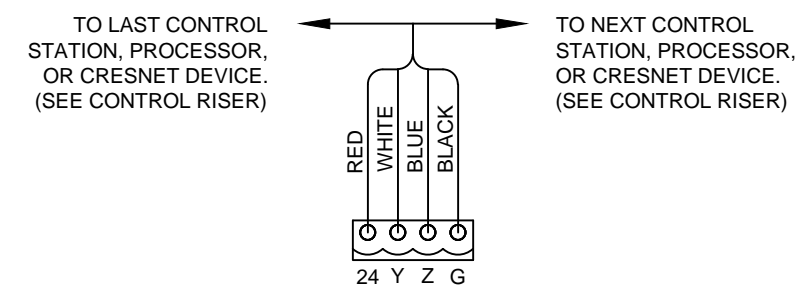
- ① #C2N-CBD-P CAMEO SERIES CONTROL STATION WITH LED INDICATORS.
- ② SINGLE GANG ELECTRICAL BOX WITH NECESSARY ACCESSORIES, 2.5" DEEP MINIMUM (NOT BY CRESTRON).
- ③ 0.1 IN PAN HEAD SCREW (TYP OF (2) PER STATION). PROVIDED WITH CONTROL STATION BY CRESTRON.
- ④ CUSTOM ENGRAVEABLE AND CONFIGURABLE KEYPAD BUTTONS. SEE MANUAL FOR ASSEMBLY INSTRUCTIONS.
- ⑤ CRESNET CONNECTION PORT FOR CONTROL VIA 2-SERIES CONTROL SYSTEM.
- ⑥ GROUNDING WIRE FOR KEYPAD TO ELECTRICAL ENCLOSURE.
- ⑦ NOT SHOWN: TO BE USED WITH ANY DECORA STYLE FACEPLATE. FURNISHED BY OTHERS.
- ⑧ LED INDICATORS - INDICATE SELECTED SCENE
- ⑨ 3-PIN 3.5MM DETACHABLE TERMINAL BLOCK. COMPRISES OF (2) VERSIPORT INPUTS.
- ⑩ PHOTSENSOR FOR CONTROL OF AUTO-DIMMING FUNCTION. CAN BE CONFIGURED TO REPORT AMBIENT LIGHT LEVEL TO CONTROL SYSTEM.

NOTE: KEYPAD IS COMPATIBLE WITH STANDARD DECORA-STYLE FACEPLATE, **NOT** PROVIDED BY CRESTRON.

WIRING NOTES:

- CAUTION: POSSIBLE EQUIPMENT DAMAGE IF MISWIRED**
1. 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.
 2. GROUND SHIELD AT CONTROL SYSTEM END **ONLY**.
 3. STRIP ONLY THE MINIMUM AMOUNT OF JACKETING FROM THE WIRES, AND INSULATE EXPOSED CONDUCTORS/ DRAIN WIRES WITH HEAT SHRINK TUBING.
 4. GENUINE CRESNET CONTROL CABLE IS RECOMMENDED FOR CONNECTION OF CRESTRON COMMERCIAL LIGHTING SYSTEMS.
 5. 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 WHEN LANDING MORE THAN TWO CONDUCTORS ON A SMALL CONNECTOR.

CRESNET CONTROL WIRING



IMPORTANT: SEE INSTALLATION AND OPERATION MANUAL FOR KEYPAD ASSEMBLY INSTRUCTIONS AND BUTTON CONFIGURATION INSTRUCTIONS.

IMPORTANT: KEYPADS WILL SHIP FROM THE FACTORY WITH NO BUTTONS INSTALLED. ALL KEYPADS SHIP WITH A COMPLETE SET OF BUTTONS TO FORM ANY OF THE LAYOUTS SHOWN ON THE "MODIFIED" DETAIL PAGE. ANY INFORMATION PROVIDED FOR ENGRAVING OR PROGRAMMING INFORMATION WILL NOT BE IMPLEMENTED UNTIL AFTER SYSTEM COMMISSIONING IS COMPLETE, AT WHICH TIME REPLACEMENT BUTTONS WITH THE SPECIFIED ENGRAVING WILL BE PROVIDED.

C2N-CBD-P KEYPAD

PART #: C2N-CBD-P

DESCRIPTION: C2N-CBD-P KEYPAD

DATE: 7/22/2013

REVISION: 006

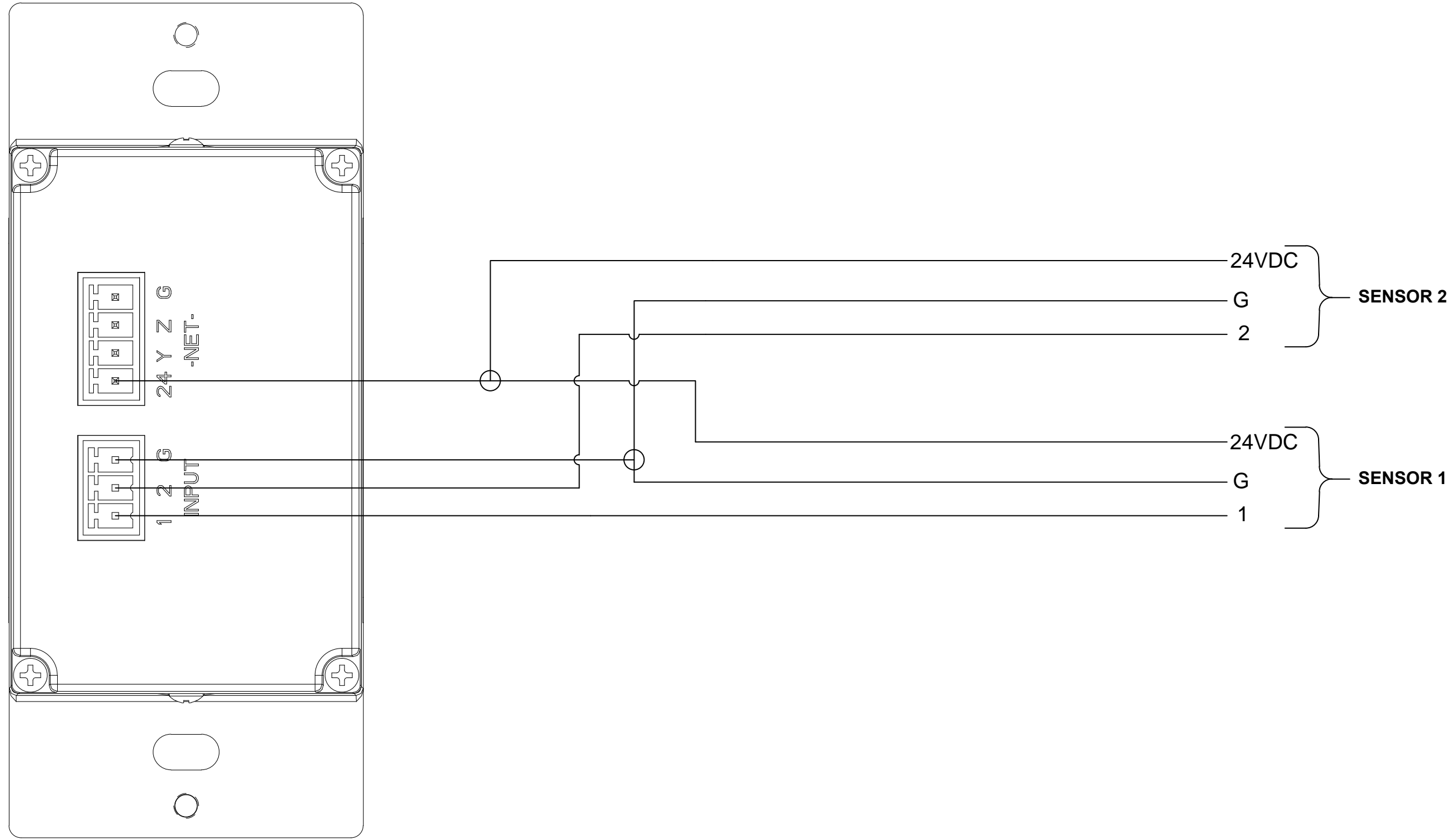
NOTES:



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DEVICE:
C2N-CBD-P CAMEO
KEYPAD
PHYSICAL DETAILS

DRAWING:
1 OF 5



WIRING FOR OPTIONAL VERSIPORT SENSOR INPUTS

WHERE CONVENIENT AND APPROPRIATE, VERSIPORT INPUTS
MAY BE USED TO CONNECT OCCUPANCY SENSORS OR
PHOTOCELLS TO CRESNET NETWORK RATHER THAN USING
GLS-SIM INTERFACE MODULE.



PART #: C2N-CBD-P

DESCRIPTION: C2N-CBD-P VERSIPORT WIRING

REVISION: 003

DATE: 3/6/12

NOTES:

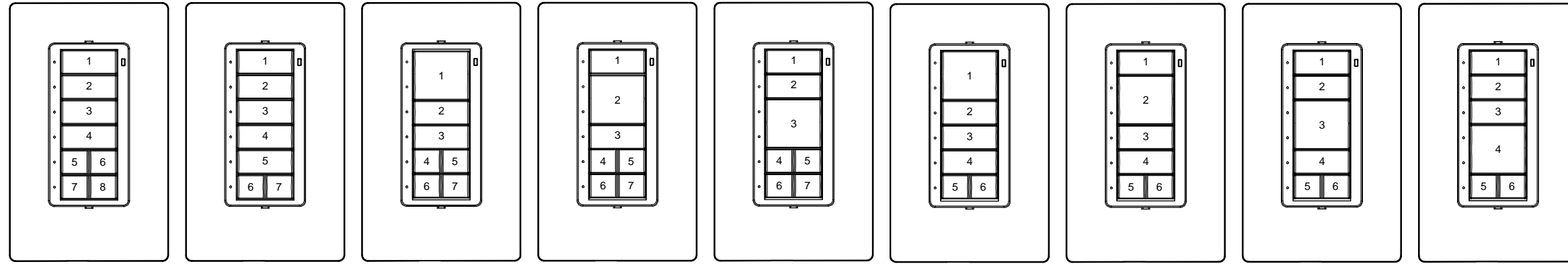


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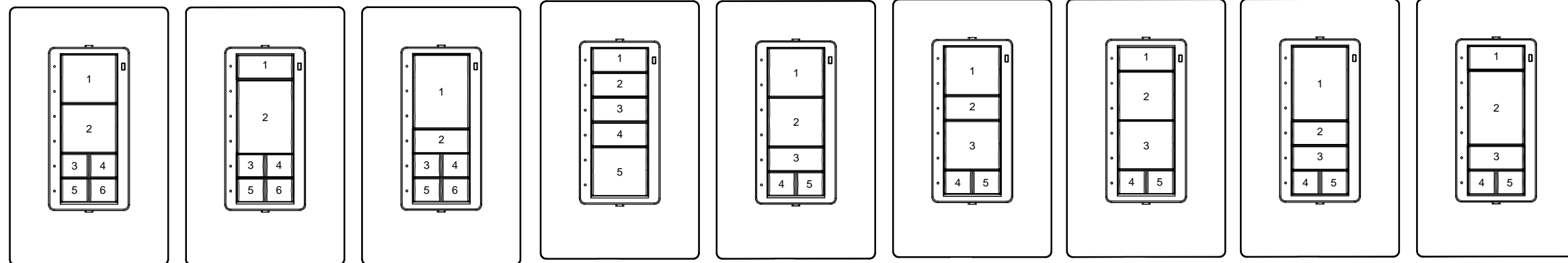
DEVICE:
C2N-CBD-P CAMEO
KEYPAD
VERSIPORT WIRING

DRAWING:
2 OF 5

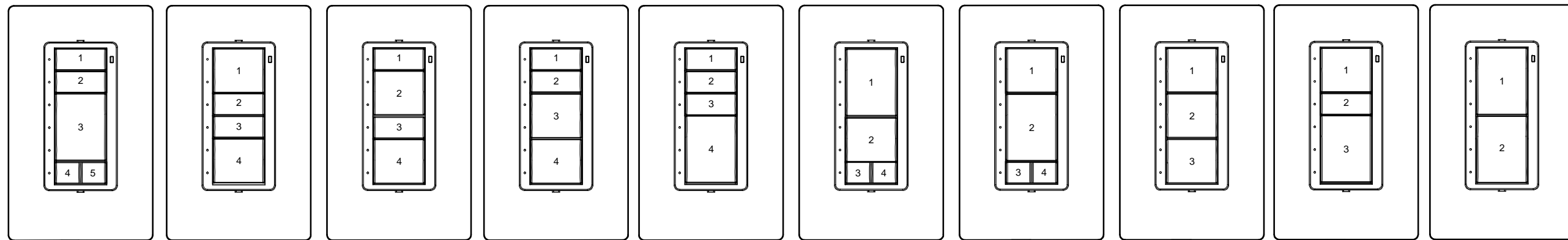
C2N-CBD-P KEYPAD ENGRAVING SHEET MODIFIED KEYPAD LAYOUTS



8 BUTTON STYLE 1 7 BUTTON STYLE 2 7 BUTTON STYLE 4 7 BUTTON STYLE 5 7 BUTTON STYLE 6 6 BUTTON STYLE 8 6 BUTTON STYLE 9 6 BUTTON STYLE 10 6 BUTTON STYLE 11



6 BUTTON STYLE 15 6 BUTTON STYLE 16 6 BUTTON STYLE 17 5 BUTTON STYLE 22 5 BUTTON STYLE 23 5 BUTTON STYLE 24 5 BUTTON STYLE 25 5 BUTTON STYLE 29 5 BUTTON STYLE 30



5 BUTTON STYLE 31 4 BUTTON STYLE 32 4 BUTTON STYLE 35 4 BUTTON STYLE 38 4 BUTTON STYLE 41 4 BUTTON STYLE 42 4 BUTTON STYLE 43 3 BUTTON STYLE 44 3 BUTTON STYLE 46 2 BUTTON STYLE 48

PLEASE USE THESE STYLES AS A GUIDE TO FILL OUT THE MODIFIED KEYPAD LAYOUT & ENGRAVING FORMS ON THE NEXT PAGE

NOTE THAT SEVERAL STYLES HAVE BEEN REMOVED FROM THIS SHEET, BUT STYLE NUMBERS ARE UNCHAINED TO MAINTAIN COMPATIBILITY WITH OLDER SHEETS.

PART #: C2N-CBD-P

DESCRIPTION: C2N-CBD-P MODIFIED LAYOUT & ENGRAVING

REVISION: 008

DATE: 1/5/2015

NOTES: UPDATE AVAILABLE STYLES- OTHER STYLES NOT RENUMBERED



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DEVICE:
C2N-CBD-P CAMEO
KEYPAD
"MODIFIED" LAYOUT

DRAWING:
4 OF 5

C2N-CBD-P KEYPAD ENGRAVING & CONTROL DETAIL SHEET. MODIFIED KEYPAD LAYOUTS



KEYPAD STYLE: _____
 STATION ID: _____
 LOCATION: _____
 COLOR: _____
 TEXTURE OR SMOOTH (CIRCLE ONE)
 SEE PREVIOUS SHEET FOR STYLE NUMBERS

ENGRAVING SCHEDULE		CONTROL
BUTTON ID	ENGRAVING	ZONES TO BE CONTROLLED
1		
2		
3		
4		
5		
6		
7		
8		

BUTTONS ARE CLASSED AS HALF, SINGLE, DOUBLE, OR TRIPLE SPACE. DOUBLE AND TRIPLE SPACE BUTTONS CAN HAVE 2 LINES OF TEXT AND EACH LINE CAN HAVE A MAXIMUM OF 7 CHARACTERS. (SEPARATE LINES WITH /)

STANDARD RAISE ▲ AND LOWER ▼ BUTTONS ARE SHIPPED WITH EACH KEYPAD FOR USE IN THE SPLIT BUTTONS (HALF-WIDTH BUTTONS AT THE BOTTOM). IF YOU WISH ENGRAVING ON THESE BUTTONS ONLY 3-4 CHARACTERS, DEPENDING ON CHARACTER WIDTH, WILL FIT ON THESE BUTTONS.

KEYPAD STYLE: _____
 STATION ID: _____
 LOCATION: _____
 COLOR: _____
 TEXTURE OR SMOOTH (CIRCLE ONE)
 SEE PREVIOUS SHEET FOR STYLE NUMBERS

ENGRAVING SCHEDULE		CONTROL
BUTTON ID	ENGRAVING	ZONES TO BE CONTROLLED
1		
2		
3		
4		
5		
6		
7		
8		

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STANDARD RAISE ▲ AND LOWER ▼ BUTTONS ARE SHIPPED WITH EACH KEYPAD FOR USE IN THE SPLIT BUTTONS (HALF-WIDTH BUTTONS AT THE BOTTOM). IF YOU WISH ENGRAVING ON THESE BUTTONS ONLY 3-4 CHARACTERS, DEPENDING ON CHARACTER WIDTH, WILL FIT ON THESE BUTTONS.

PLEASE NOTE:

THIS SHEET AND THE SHEETS FOR "STANDARD" LAYOUTS THAT PRECEDE IT DO NOT NEED TO BE RETURNED COMPLETED WITH THE SUBMITTAL PACKAGE FOR THIS PROJECT. THESE SHEETS MUST BE RETURNED NOT LATER THAN YOUR REQUEST FOR SYSTEM COMMISSIONING.

KEYPADS SHIP WITH NO BUTTONS INSTALLED. SEE NOTE ON C2N-CBD-P SHEET 1 OF 5 FOR DETAILS.

INSTRUCTIONS

IF YOU WISH TO USE ANY MODIFIED LAYOUTS FOR YOUR PROJECT, PLEASE FOLLOW THE INSTRUCTIONS BELOW. IF YOU WISH STANDARD LAYOUTS ONLY, PLEASE GO TO THE PRIOR SHEET "STANDARD KEYPAD LAYOUTS"

- MAKE AS MANY COPIES AS YOU NEED OF THIS SHEET TO BE ABLE TO CREATE AS MANY DIFFERENT STATION ENGRAVINGS AS YOU REQUIRE. NOTE THAT IF YOU HAVE SEVERAL STATIONS THAT ARE THE SAME, YOU MAY LIST MULTIPLE STATION ID NUMBERS IN THE APPROPRIATE SPACE, YOU DON'T NEED A SEPARATE SHEET FOR EACH STATION.
- ENTER THE STYLE NUMBER (SEE PREVIOUS SHEET FOR STYLES) THAT YOU WOULD LIKE FOR A STATION OR TYPE OF STATION.
- LOOK AT THE SINGLE-LINE RISER DIAGRAMS EARLIER IN THIS SUBMITTAL PACKAGE. EACH KEYPAD WILL HAVE A "STATION ID". NOTE THAT STATION ID IN THE APPROPRIATE SPACE, AS WELL AS THE DEVICE LOCATION. IF THE DEVICE LOCATION ISNT SPECIFIED, PLEASE TRY TO UPDATE IT.
- ON THIS SUBMITTAL'S BILL OF MATERIALS PAGE YOU WILL SEE A LISTING OF ALL KEYPADS, AS WELL AS THEIR COLOR AND FINISH.
- IF THE KEYPADS HAVE NOT YET BEEN SHIPPED, YOU MAY CHANGE TO COLOR/FINISH FOR NO ADDITIONAL FEE. NOTE THE COLOR YOU WOULD LIKE THE KEYPAD TO BE ON THE "COLOR" LINE, WITH EITHER "SMOOTH" (GLOSS) OR "TEXTURED" (MATTE) ON THE LINE BELOW COLOR.
- BE AWARE THAT IF THE KEYPADS HAVE SHIPPED AND THE COLOR NEEDS TO CHANGE, RESTOCKING FEES WILL BE APPLIED.
5. IN THE ENGRAVING TABLE, ENTER THE TEXT YOU WOULD LIKE TO HAVE ENGRAVED ON THE BUTTONS.
- ONCE YOU ARE FINISHED WITH ALL ENGRAVING DETAILS, PLEASE SEND THE SHEET(S) TO LIGHTINGCOMMISSIONING@CRESTRON.COM
- PLEASE ENTER PROGRAMMING INFORMATION FOR EACH STATION- ZONES TO BE CONTROLLED BY EACH BUTTON. CONTROLS LIKE "PROJECTION SCREEN UP" OR OTHER NON-ZONE RELATED ACTIONS MAY ALSO BE NOTED.

AVAILABLE COLORS & FINISHES

WHITE	SMOOTH OR TEXTURED
BLACK	SMOOTH OR TEXTURED
ALMOND	SMOOTH OR TEXTURED
GRAY	SMOOTH
IVORY	SMOOTH
DARK ALMOND	SMOOTH
BROWN	SMOOTH
LATTE	TEXTURED
DUSK	TEXTURED

PLEASE GO TO WWW.CRESTRON.COM FOR PHOTOS OF THESE COLORS, OR CONTACT YOUR CRESTRON PROJECT COORDINATOR FOR SAMPLES

KEYPAD STYLE: _____
 STATION ID: _____
 LOCATION: _____
 COLOR: _____
 TEXTURE OR SMOOTH (CIRCLE ONE)
 SEE PREVIOUS SHEET FOR STYLE NUMBERS

ENGRAVING SCHEDULE		CONTROL
BUTTON ID	ENGRAVING	ZONES TO BE CONTROLLED
1		
2		
3		
4		
5		
6		
7		
8		

BUTTONS ARE CLASSED AS HALF, SINGLE, DOUBLE, OR TRIPLE SPACE. DOUBLE AND TRIPLE SPACE BUTTONS CAN HAVE 2 LINES OF TEXT AND EACH LINE CAN HAVE A MAXIMUM OF 7 CHARACTERS. (SEPARATE LINES WITH /)

STANDARD RAISE ▲ AND LOWER ▼ BUTTONS ARE SHIPPED WITH EACH KEYPAD FOR USE IN THE SPLIT BUTTONS (HALF-WIDTH BUTTONS AT THE BOTTOM). IF YOU WISH ENGRAVING ON THESE BUTTONS ONLY 3-4 CHARACTERS, DEPENDING ON CHARACTER WIDTH, WILL FIT ON THESE BUTTONS.

KEYPAD STYLE: _____
 STATION ID: _____
 LOCATION: _____
 COLOR: _____
 TEXTURE OR SMOOTH (CIRCLE ONE)
 SEE PREVIOUS SHEET FOR STYLE NUMBERS

ENGRAVING SCHEDULE		CONTROL
BUTTON ID	ENGRAVING	ZONES TO BE CONTROLLED
1		
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8		

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STANDARD RAISE ▲ AND LOWER ▼ BUTTONS ARE SHIPPED WITH EACH KEYPAD FOR USE IN THE SPLIT BUTTONS (HALF-WIDTH BUTTONS AT THE BOTTOM). IF YOU WISH ENGRAVING ON THESE BUTTONS ONLY 3-4 CHARACTERS, DEPENDING ON CHARACTER WIDTH, WILL FIT ON THESE BUTTONS.

PART #: C2N-CBD-P

DESCRIPTION: C2N-CBD-P MODIFIED LAYOUT & ENGRAVING

DATE: 1/2/13

REVISION: 005

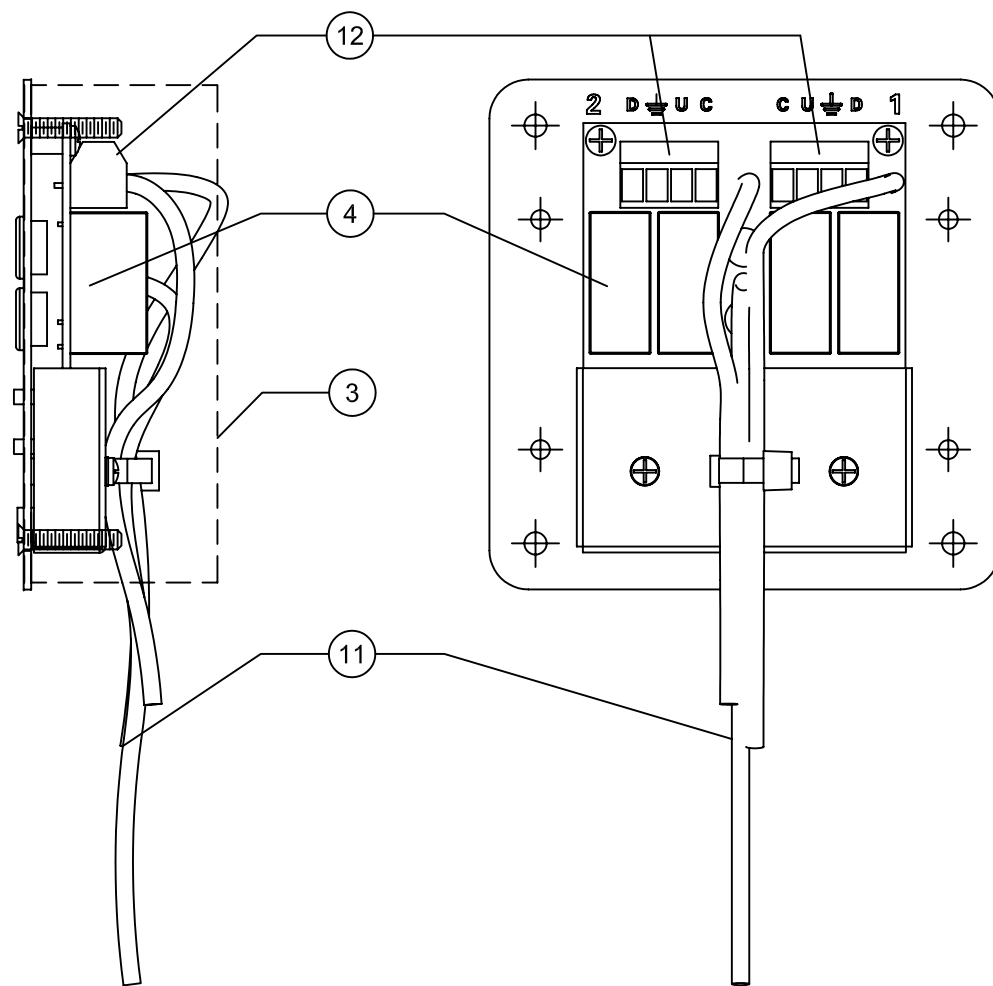
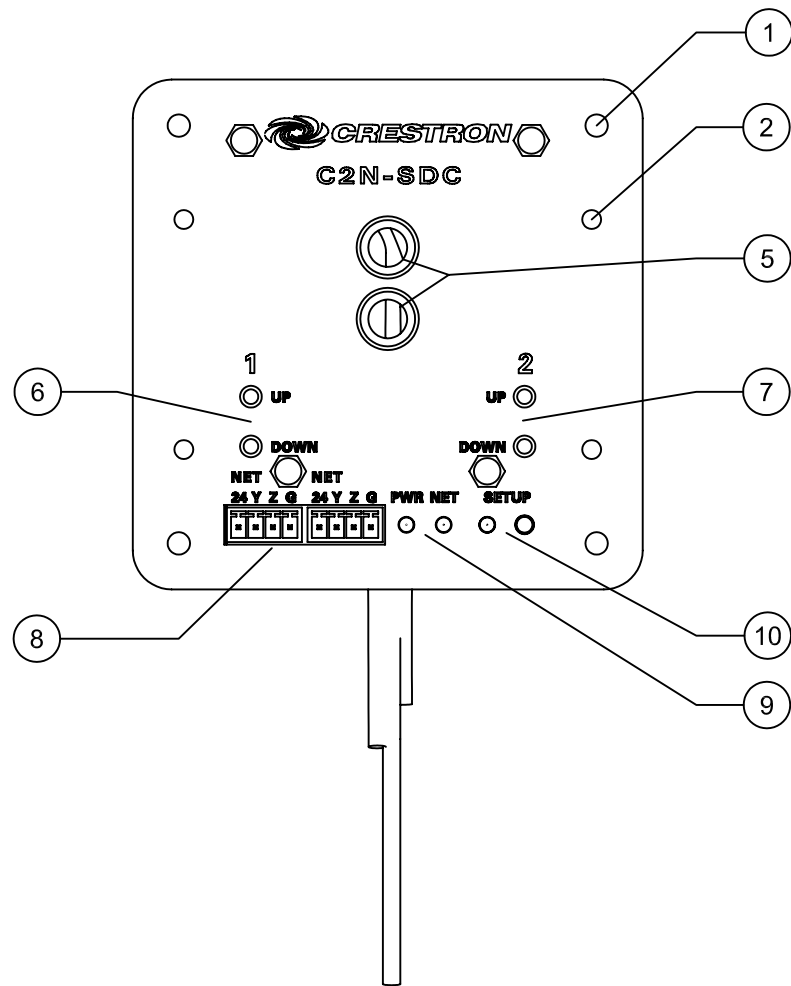
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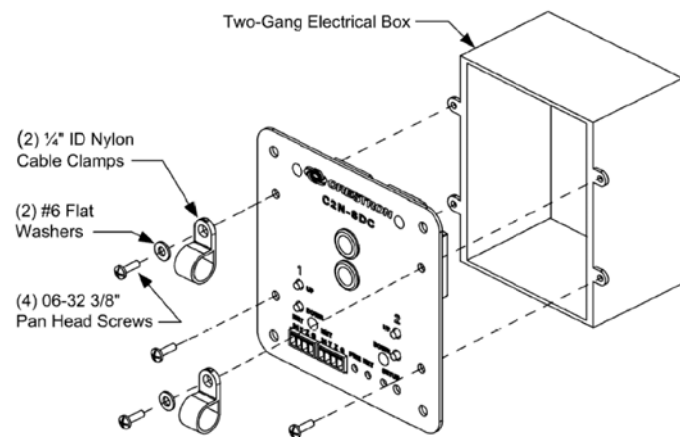
15 Volvo Drive
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 Fax: 201-767-6011
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DEVICE:
 C2N-CBD-P CAMEO
 KEYPAD
 "MODIFIED" LAYOUT
 INSTRUCTIONS

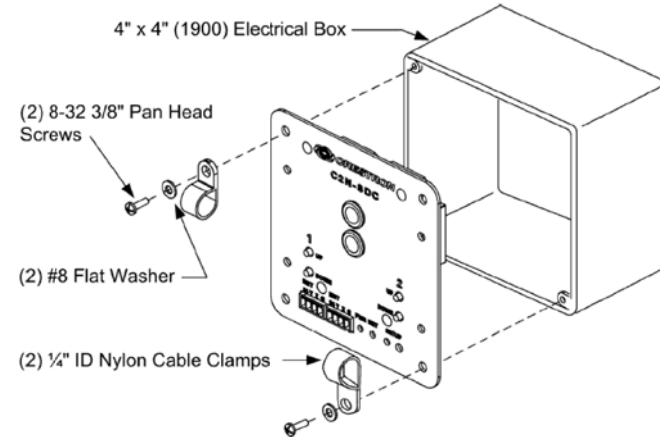
DRAWING:
 5 OF 5



Installation in a Two-Gang Electrical Box

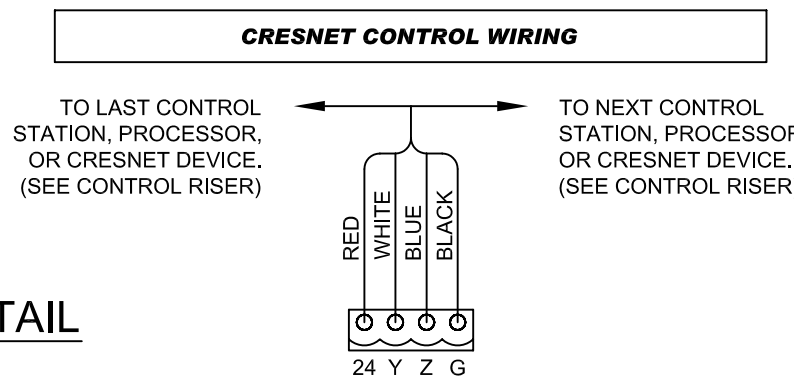


Installation in a 4"x 4" (1900) Electrical box



NOTE:
TWO 1/4"ID PLASTIC CABLE CLAMPS ARE PROVIDED WITH EACH C2N-SDC. USE PROVIDED MOUNTING SCREWS AND WASHERS WHEN INSTALLING CABLE CLAMPS. MOUNTING HARWARE FOR BOTH INSTALLATION METHODS PROVIDED WITH CONTROLLER.

C2N-SDC SHADE AND DRAPE CONTROLLER DETAIL



NOTES KEY

- 1 MOUNTING HOLES FOR 4" X 4" SQUARE ELECTRICAL BOX MOUNTING. SEE 4X4 ELECTRICAL BOX INSTALLATION DETAILS BELOW.
- 2 MOUNTING HOLES FOR TWO GANGE ELECTRICAL BOX MOUNTING. SEE 2-GANG ELECTRICAL BOX INSTALLATION INSTRUCTIONS BELOW.
- 3 ELECTRICAL BOX. 4"X 4" SQUARE BOX OR VERTICALLY MOUNTED 2-GANG ELECTRICAL BOX. 1.5" DEPTH MINIMUM REQUIRED.
- 4 RELAYS FOR CONTROL OF SHADE AND DRAPE MOTORS. HARDWARE PREVENTS BOTH THE OPEN AND CLOSE MOTORS FROM OPERATING SIMULTANEOUSLY.
- 5 GROMMET HOELS FOR MOTOR CONTROL CABLES.
- 6 MOTOR 1 MANUAL CONTROLS. UP & DOWN PUSHBUTTONS ALLOW FOR MOTORS TO BE ACTIVATED MANUALLY.
- 7 MOTOR 2 MANUAL CONTROLS. UP BUTTON AND DOWN BUTTON.UP & DOWN PUSHBUTTONS ALLOW FOR MOTORS TO BE ACTIVATED MANUALLY.
- 8 CRESNET COMMUNICATIONS CONNECTORS. TWO 4-PIN TERMINAL BLOCKS ARE PROVIDED SO THAT UNITS CAN BE DAISY CHAINED. +24VDC SUPPLY POWER FOR CONTROL ELECTRONICS IS PROVIDED VIA CRESNET.
- 9 POWER INDICATOR LED INDICATES POWER RECIEVED FROM CRESNET. NET INDICATOR LED NIIDCATES UNIT IDENTIFIED IN PROGRAM.
- 10 TSID SETUP LED AND PUSHBUTTON. USED FOR SETTING THE IDENTITY CODE.
- 11 PIGTAIL WIRES ATTACHED TO THE REAR OF THE UNIT PROVIDE WIRE CONNECTIONS FOR 120VAC AND GROUND.
- 12 TWO 4-PIN TERMINAL BLOCKS FOR MOTOR CONNECTIONS ACCOMMODATE UP TO 14AWG WIRE. FOR CONTROL OF UP TO (2) BI-DIRECTINOAL 1/3HP MOTORS. EACH SHADE OR DRAPE HAS CONNECTIONS FOR:
UP DRIVE
DOWN DRIVE
COMMON (NEUTRAL)
CHASSIS GROUND (IF AVIALABLE)

WIRING NOTES:

CAUTION: POSSIBLE EQUIPMENT DAMAGE IF MISWIRED

1. 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.
2. GROUND SHIELD AT CONTROL SYSTEM END ONLY.
3. STRIP ONLY THE MINIMUM AMOUNT OF JACKETING FROM THE WIRES, AND INSULATE EXPOSED CONDUCTORS/ DRAIN WIRES WITH HEAT SHRINK TUBING.
4. GENUINE CRESNET CONTROL CABLE IS RECOMMENDED FOR CONNECTION OF CRESTRON COMMERCIAL LIGHTING SYSTEMS.
5. MODEL CNTBLOCK NETWORK DISTRIBUTION/ TERMINAL BLOCKS ARE RECOMMENDED FOR TESTING PURPOSES AND CONVENIENCE OF WIRING.
6. 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 WHEN LANDING MORE THAN TWO CONDUCTORS ON A SMALL CONNECTOR.

PART #: C2N-SDC

DESCRIPTION: SHADE AND DRAPE CONTROLLER

DATE: 8/13/10

REVISION: 000

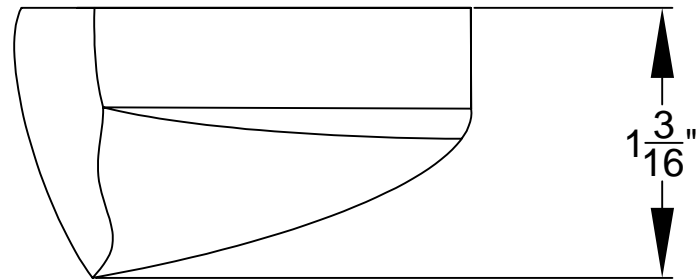
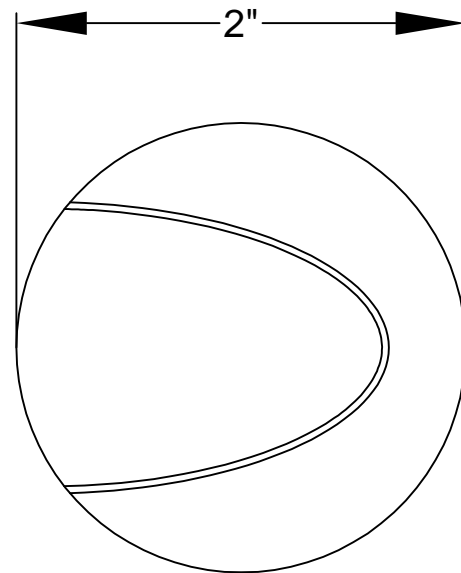
NOTES:



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Fax: 201-767-6011
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PART #:
C2N-SDC

DRAWING:
1 OF 1



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)
 DIAMETER: 2.0 IN, (5.08cm)



PART #: GLS-LOL

DESCRIPTION: OPEN LOOP PHOTOCELL

DATE: 7/20/2012

REVISION: 000

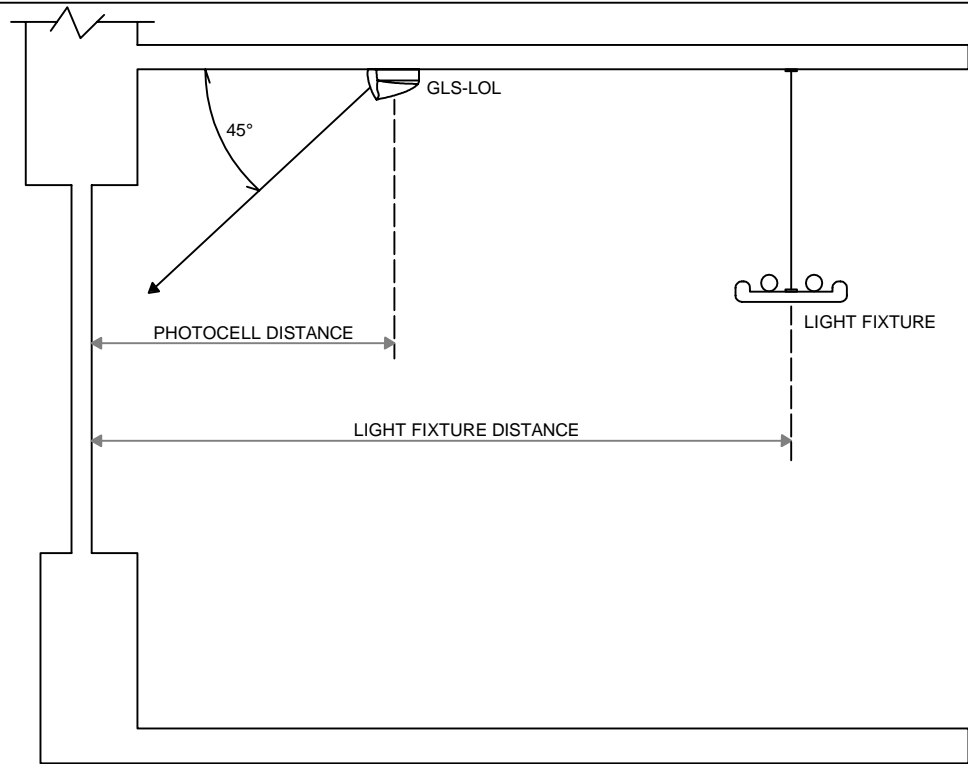
NOTES:



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PART #:
 GLS-LOL
 OPEN-LOOP
 PHOTOCELL

DRAWING:
 1 of 2



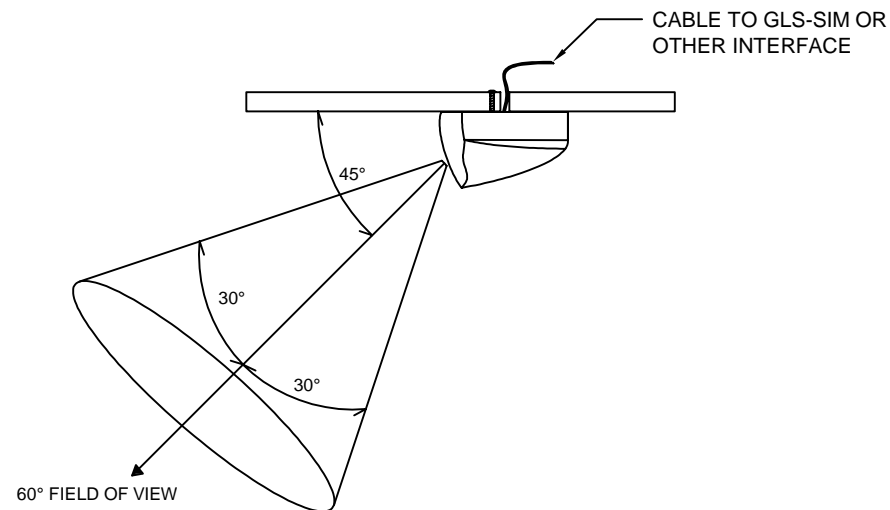
PHOTOCELL PLACEMENT

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.

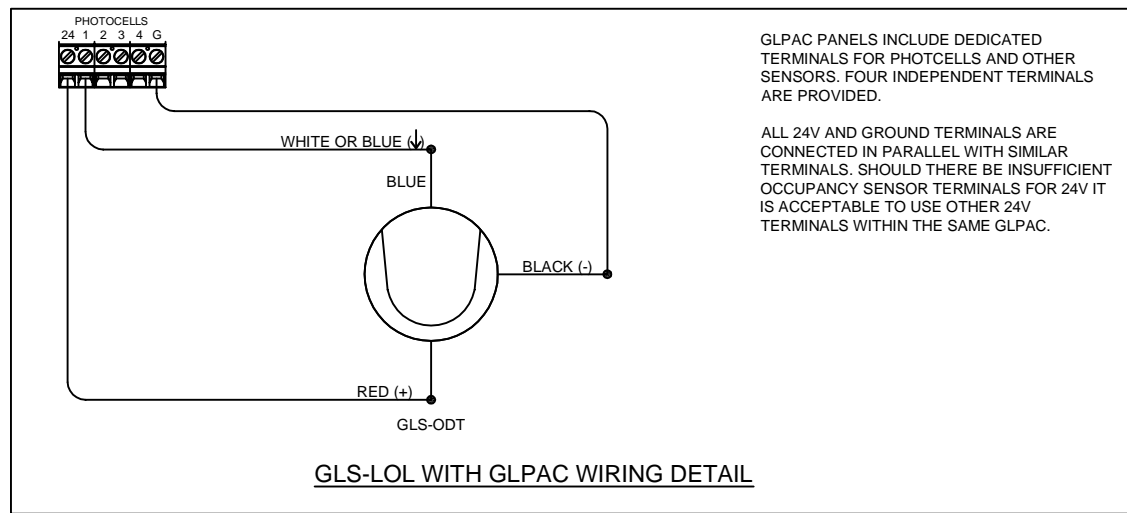
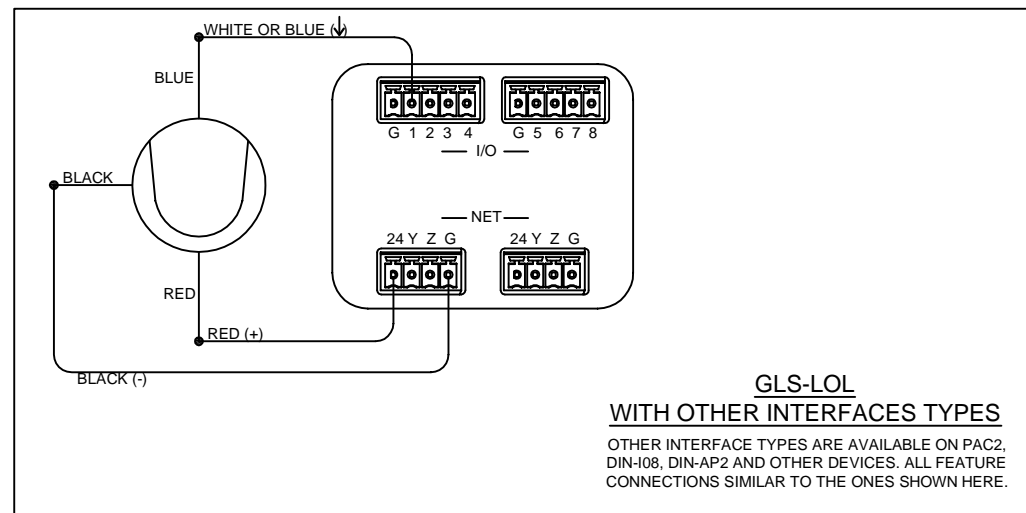
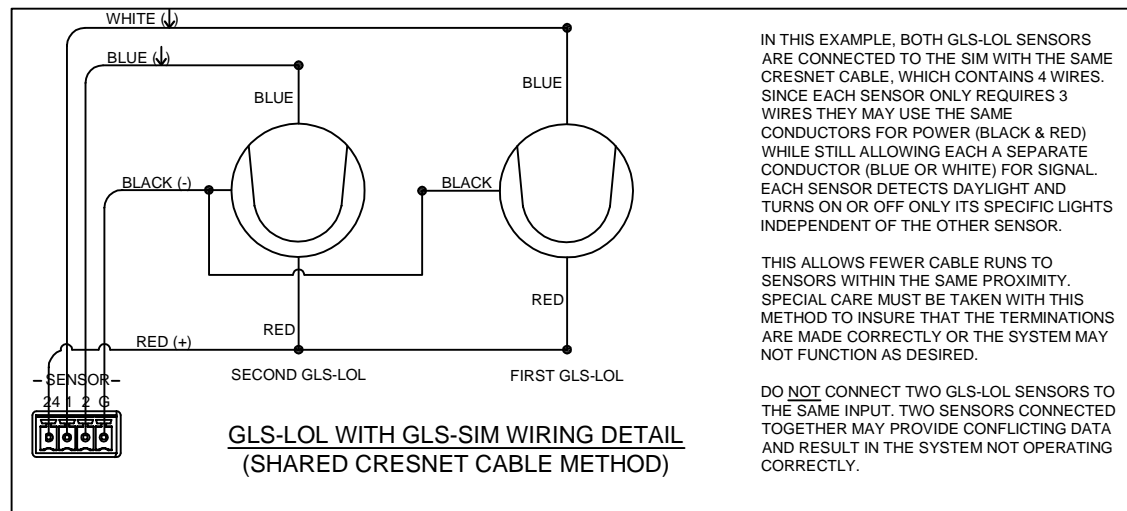
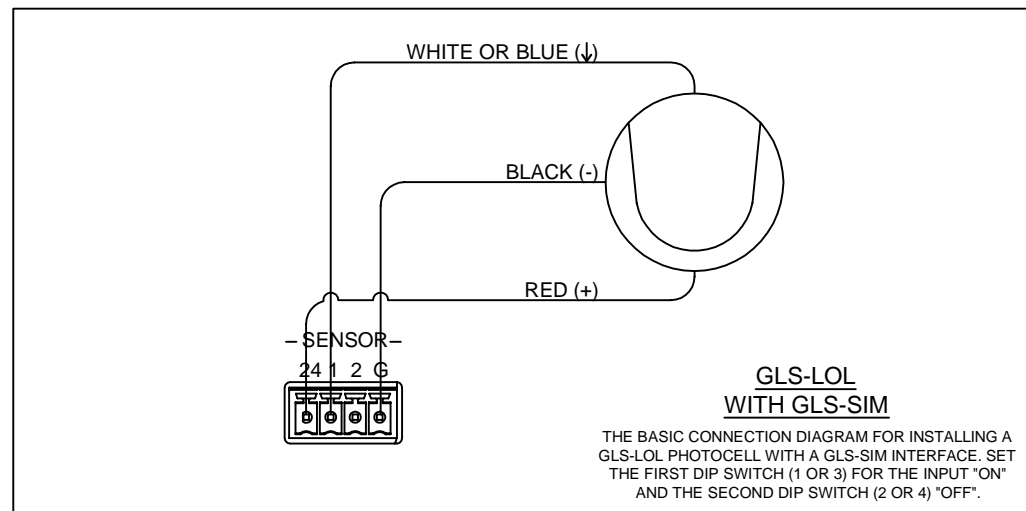
THE PHOTOCELL IS DESIGNED FOR MOUNTING IN A DRY LOCATION THAT IS EXPOSED TO DAYLIGHT. THE PHOTOCELL SHOULD NOT BE EXPOSED TO DIRECT ILLUMINATION FROM AN ELECTRIC LIGHT SOURCE.

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 WIRING DETAILS



PART #: GLS-LOL

DESCRIPTION: OPEN LOOP PHOTOCELL

REVISION: 001

DATE: 10/15/2012

NOTES:



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

PART #:
 GLS-LOL
 OPEN-LOOP
 PHOTOCELL

DRAWING:
 2 of 2

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. **IF A SQUARE 1900 BACK BOX IS USED, A 7.0 CUBIC INCH ROUND MUD RING IS REQUIRED.**

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.

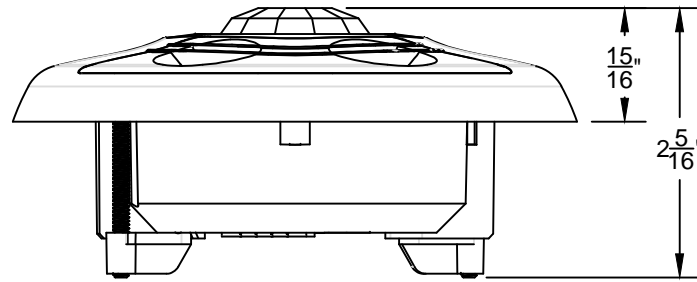
NOTE: DEPENDING ON INSTALLATION REQUIREMENTS, THE ULTRASONIC SENSORS CAN BE ENABLED OR DISABLED THROUGH THE IR REMOTE. THE ULTRASONIC SENSORS ARE SPLIT INTO TWO BANKS- A & B- WHICH ARE LABELED UNDER THE COVER OF THE SENSOR. IF THE SENSOR IS ALREADY INSTALLED AND THE ORIENTATION OF THE SENSORS IS UNKNOWN,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

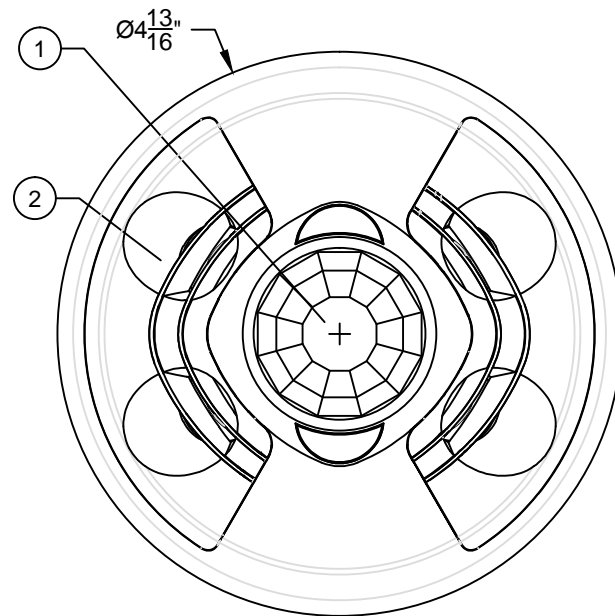
MODEL	DESCRIPTION	CURRENT CONSUMPTION	CRESNET POWER	COVERAGE	IR SENSOR	SUGGESTED LOCATION
GLS-ODT-C-NS	2-WAY DUAL TECH	45mA	1.08w	2000 FT ² (185.8m ²)	IR SENSOR FOR GLPP CONTROL	MOUNT IN CENTER OF ROOM/AREA OR MOUNT IN CORNER*

NOTES KEY

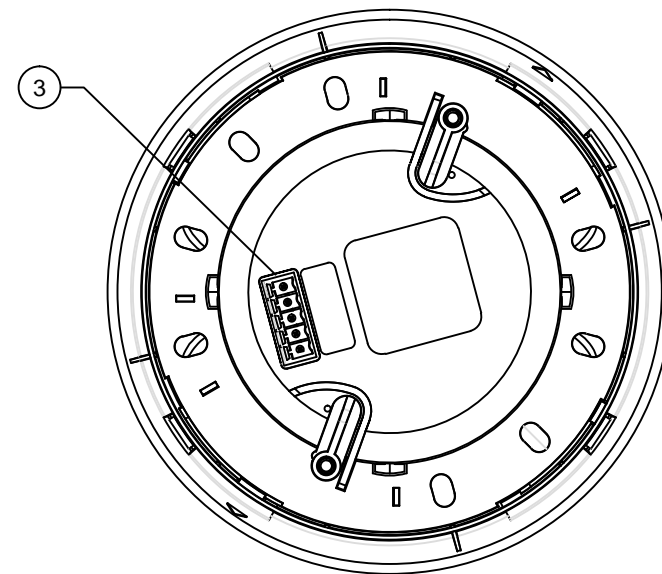
- ① IR SENSOR
 - ② ULTRASONIC SENSORS
 - ③ 5-PIN CONNECTOR
 - 1: +24VDC
 - 2: OCC
 - 3: N/C
 - 4: GND
 - 5: IR
- 24 VDC POWER FROM CONTROLLER (GLPP, GLPAC, GL-IPAC, GLS-SIM) CONNECTS TO OCCUPANCY SENSOR PORT OF GLPP, GLPAC, GL-IPAC or #1 OR #2 INPUT OF GLS-SIM OR CAMEO KEYPAD
NO CONNECTION
CONNECT TO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



SIDE VIEW



TOP VIEW



BOTTOM VIEW
(BOTTOM COVER REMOVED)

PHYSICAL DETAILS

GLS-ODT-C-NS DETAILS



PART #: GLS-ODT-C-NS

DESCRIPTION: DUAL TECHNOLOGY OCCUPANCY SENSOR

DATE: 10/20/2015

REVISION: 001

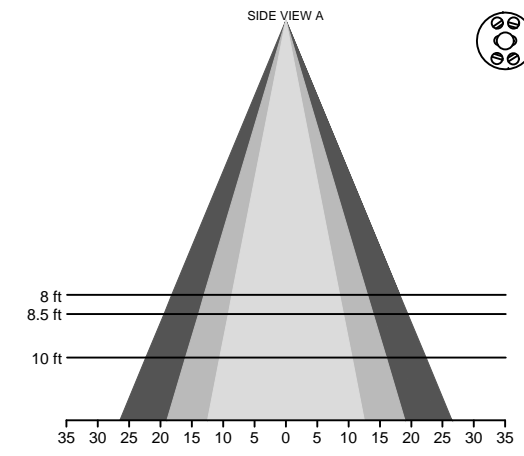
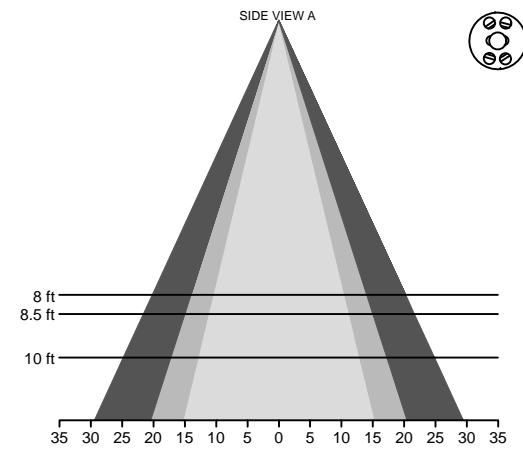
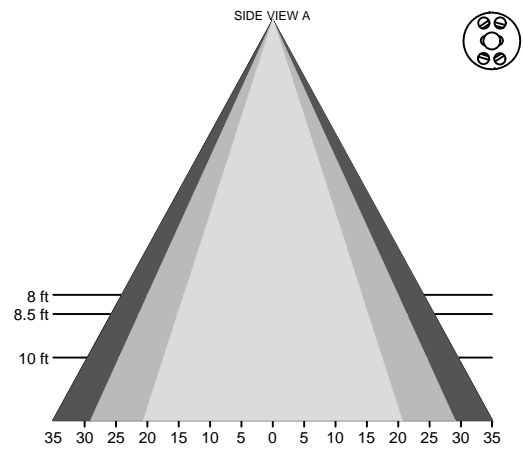
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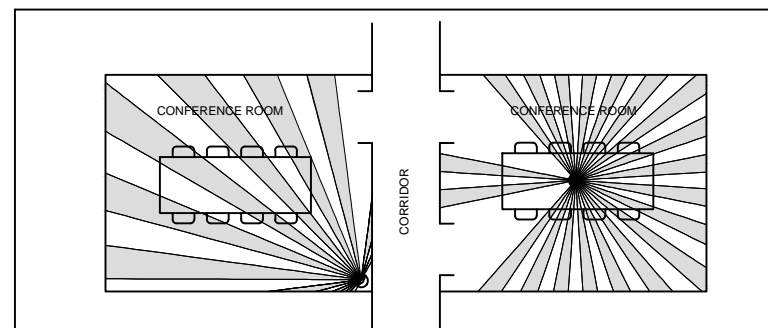
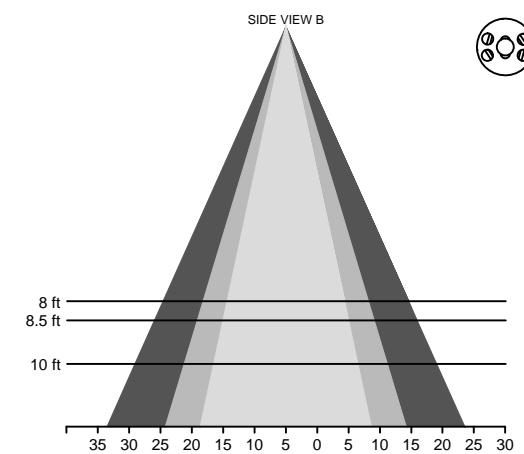
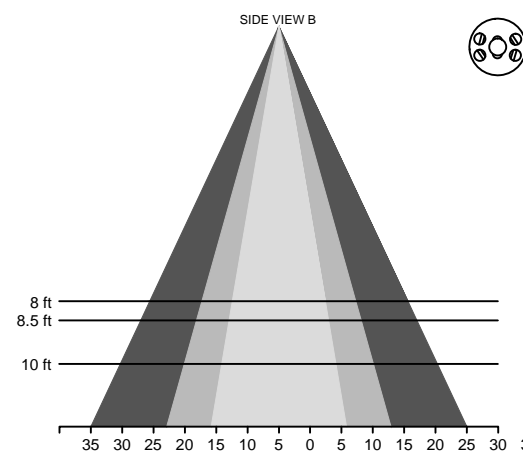
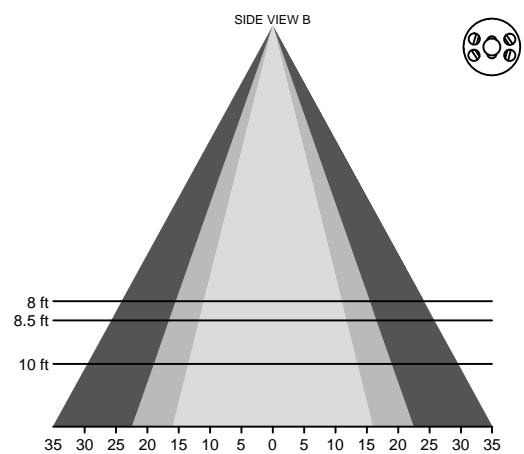
15 Volvo Drive
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Tel: 888-273-7876
Fax: 201-767-6011
www.crestron.com

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

DRAWING:
1 of 2

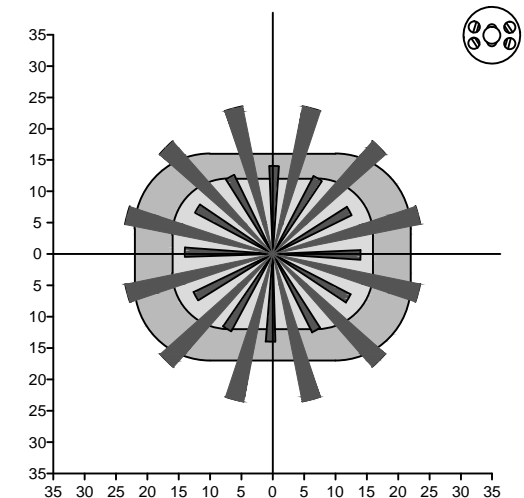


ULTRASONIC MAJOR MOTION
 ULTRASONIC MINOR MOTION
 PIR MAJOR MOTION

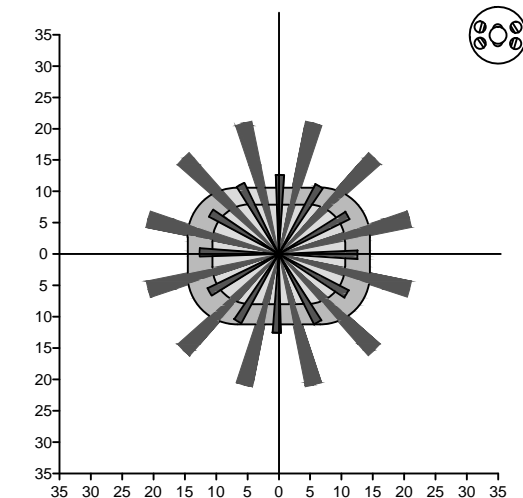


TWO POSSIBLE MOUNTING & MASKING OPTIONS:
 IN THE EXAMPLE ABOVE TWO CONFERENCE ROOMS ARE ALONG A CORRIDOR. IT IS UNDESIRABLE FOR CORRIDOR TRAFFIC TO TURN ON THE LIGHTS IN THE CONFERENCE ROOMS. IN THE ROOM ON THE LEFT, AN OCCUPANCY SENSOR IS MOUNTED IN A CORNER WITH ONE ULTRASONIC SENSOR BANK TURNED OFF, 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.

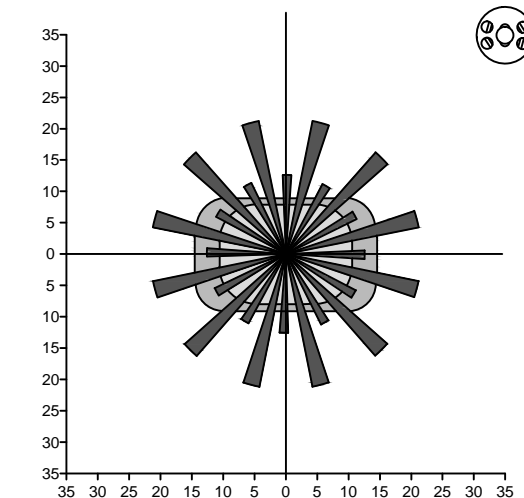


APPROXIMATE COVERAGE
HIGH SENSITIVITY SETTING



APPROXIMATE COVERAGE
MEDIUM SENSITIVITY SETTING

NOT TO SCALE



APPROXIMATE COVERAGE
LOW SENSITIVITY SETTING

GLS-ODT-C-NS FIELD OF VIEW RANGES

PART #: GLS-ODT-C-NS

DESCRIPTION: DUAL TECH OCCUPANCY SENSOR

DATE: 7/17/2014

REVISION: 000

NOTES:



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

DRAWING:
 2 of 2

C2N-SDC

Shade and Drape Controller, 120V AC

The C2N-SDC is a 2-channel Shade and Drape Controller designed to provide a convenient and cost-effective solution for controlling a variety of motorized window treatments as well as motorized doors, sunroofs, lifts and projection screens. The C2N-SDC is a Cresnet® device with two independently controlled 120V AC outputs. Each output provides up/down or open/close control of a conventional three-wire bidirectional type motor. Built-in timing and interlock logic make it easy to program the C2N-SDC for failsafe operation.

The C2N-SDC mounts in the wall or ceiling using an off-the-shelf 4" square or 2-gang electrical box. Pushbuttons on the front of the unit allow for manual operation of the motors during installation and setup.



SPECIFICATIONS

Load Ratings

Motor Control Channels: 2
Per Channel: 7.5 Amps, 1/3 HP
Total: 15 Amps
Load Types: 3-Wire 120V AC bidirectional motors

Power Requirements

Line Power: 120 Volts AC, 50-60Hz, single-phase
Cresnet Power Usage: 3 Watts (0.125 Amps @ 24 Volts DC)

Connections (rear)

Hot: (1) Class 1 flying lead, 14 AWG, black, line power input
Neutral: (1) Class 1 flying lead, 14 AWG, white, neutral
Ground: (1) Class 1 flying lead, 14 AWG, green, ground
Load 1 - 2: (2) 4-pin terminal blocks comprising (2) independent 120V AC 3-wire bidirectional motor control outputs;
Includes terminals for up/open drive (U), down/close drive (D), common/neutral (C), and ground;
Maximum Wire Size: 14 AWG

Connectors (front)

NET: (2) 4-pin 3.5mm detachable terminal blocks;
Cresnet slave ports, paralleled;
Connect to Cresnet control network

Buttons

1 UP/DOWN: (2) buttons for local control of output #1
2 UP/DOWN: (2) buttons for local control of output #2
SETUP: (1) button used for touch-settable ID (TSID)

LED Indicators

PWR: (green) Indicates DC power supplied from Cresnet network
NET: (yellow) Indicates communication with the Cresnet system
SETUP: (red) used for touch-settable ID (TSID)

Environmental

Temperature: 41° to 122°F (5° to 50°C)
Humidity: 10% to 90% RH (non-condensing)

Enclosure

Flat metal plate mountable in a 4-inch square or 2-gang electrical box, 1.5 inch minimum depth; mount 2-gang box horizontally to maintain correct orientation

Dimensions

Height: 4.10 in (104.1 mm)
Width: 4.10 in (104.1 mm)
Depth: 1.15 in (29.2 mm)

Weight

0.55 lb (0.25 kg)

C2N-SDC Shade and Drape Controller, 120V AC

MODELS & ACCESSORIES

Available Models

C2N-SDC: Shade and Drape Controller, 2 outputs for 120 VAC 3-wire bidirectional motors

Available Accessories

CRESNET-HP-NP: Cresnet® “High-Power” Control Cable, non-plenum

CRESNET-NP: Cresnet® Control Cable, non-plenum

CRESNET-P: Cresnet® Control Cable, plenum

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.

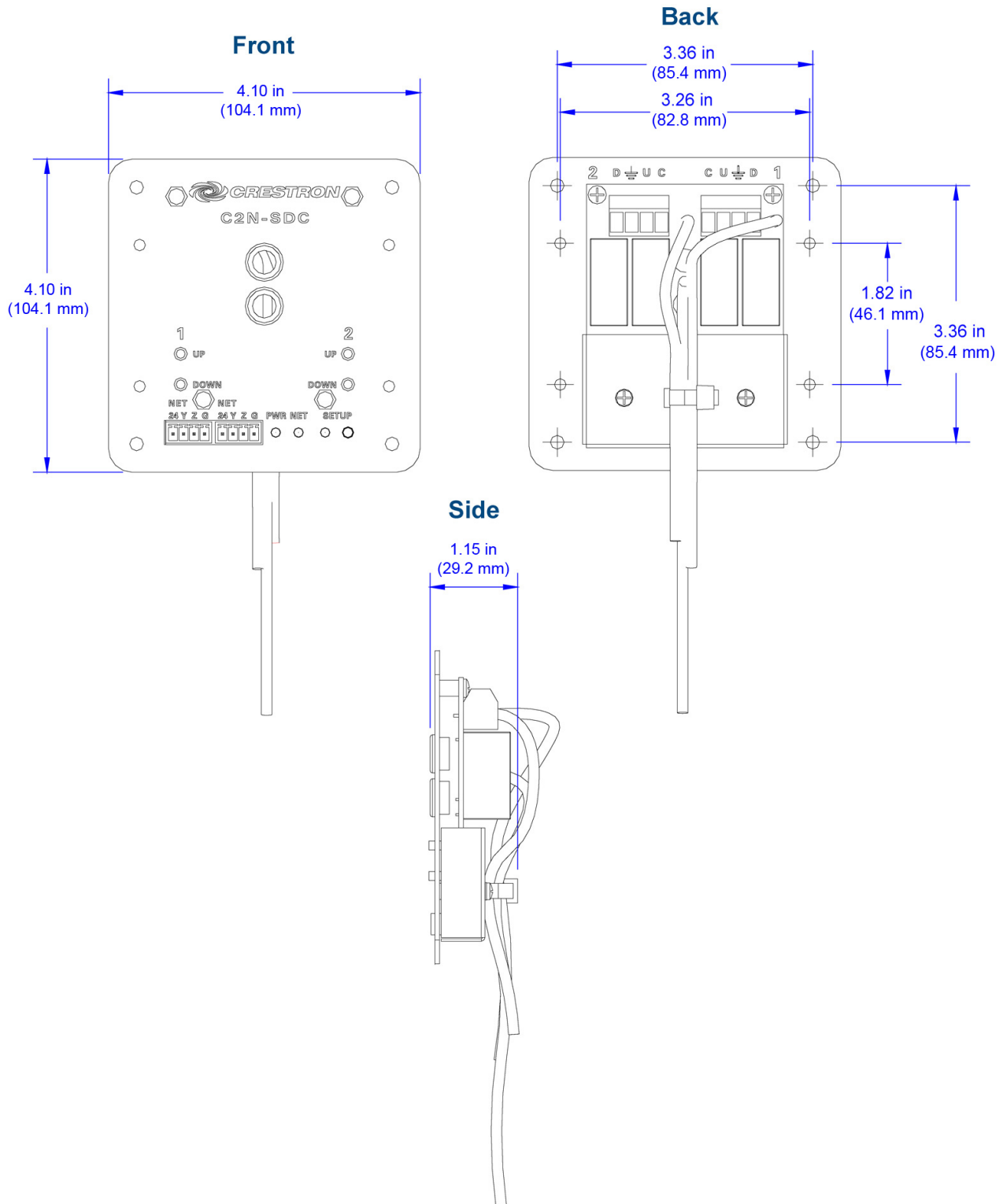
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C2N-SDC Shade and Drap Controller, 120V AC

CAD DRAWINGS



Crestron Green Light® Photocell , Open-Loop

- > Photocell sensor that mounts to a wall or ceiling
- > Measure the light level from a natural daylight source
- > Vertical or horizontal surface mount
- > 60 degree field of view
- > 0 to 10 Volt DC analog control output
- > Control system interface via Cresnet®^[1] or analog input
- > EMerge Alliance® Compatible

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.

Open-loop photocell sensing provides 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 a drywall or 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. 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.

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^[5]. 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.



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 @ 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 (3.05 cm)
Diameter: 2.0 in (5.08 cm)

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

MODELS & ACCESSORIES

Available Models

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

Available Accessories

GLS-SIM: Crestron Green Light® Sensor Integration Module

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.
5. 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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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)

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.

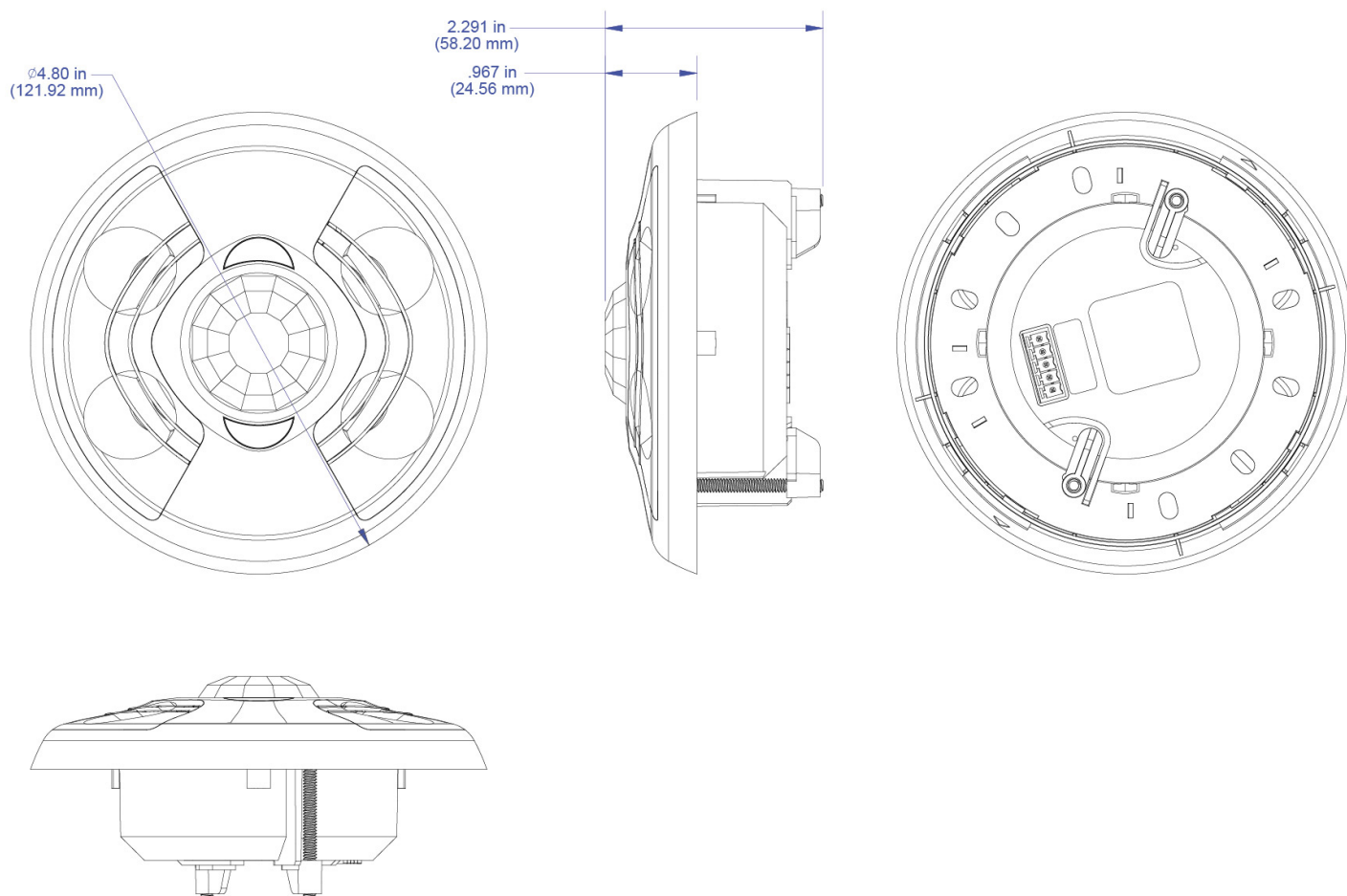
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GLS-ODT-C-NS

Dual-Technology Ceiling Mount Occupancy Sensor

CAD DRAWING



GLA-PWS50

Wall Mount 50 Watt Cresnet Power Supply

The GLA-PWS50 is a 50 Watt Cresnet Power Supply designed for use with a Crestron Green Light™ system, or anywhere a wall-mountable Cresnet power supply is needed. The GLA-PWS50 mounts conveniently over a 4" square or 2-gang electrical box. All connections are made inside the electrical box via flying leads using twist-on wire connectors. A partition is included to isolate high voltage from Class 2 wiring within the box.

- > 50 Watt Cresnet power supply
- > Powers the IPAC and other Cresnet devices
- > Provides backup power for Crestron Green Light cabinets
- > Mounts to a 4" square or 2-gang electrical box
- > Euro/UK mountable version also available (GLA-PWSI50)

SPECIFICATIONS

Output Power

Output Power: 50 Watts (2.1 Amps) @ 24 Volts DC, regulated, limited power source

Ripple/Noise: <1%

Power Requirements

Line Power: 1 Amp @ 100-240 Volts AC, 50/60 Hz

Connections

Line Power: (3) 6" flying leads, 18 AWG, line power input; Hot (black), neutral (white), and ground (green w/yellow) connections
Output: (2) 6" flying leads, 18 AWG, Cresnet power output; 24 Volts DC (red) and Ground (black w/white);
Connects to "24" and "G" connections of the Cresnet control network, or directly to a 24 Volt DC powered Crestron device
Fuse: DC output fuse, T3.15AH; (5x20mm, 250V, 3.15A, time-lag, ceramic cartridge)

LED Indicators

24VDC: (1) green LED, indicates 24 Volts DC output, extinguishes when fuse is blown

Environmental

Temperature: 32° to 104°F (0° to 40°C)
Humidity: 10% to 90% RH (non-condensing)
Heat Dissipation: 26 BTU/hr

Enclosure

Metal construction, mounts to a 4-inch square or 2-gang electrical box, includes low-voltage partition

Dimensions

Height: 4.00 in (10.16 cm)
Width: 5.55 in (14.09 cm)



Depth: 2.27 in (5.76 cm) without partition

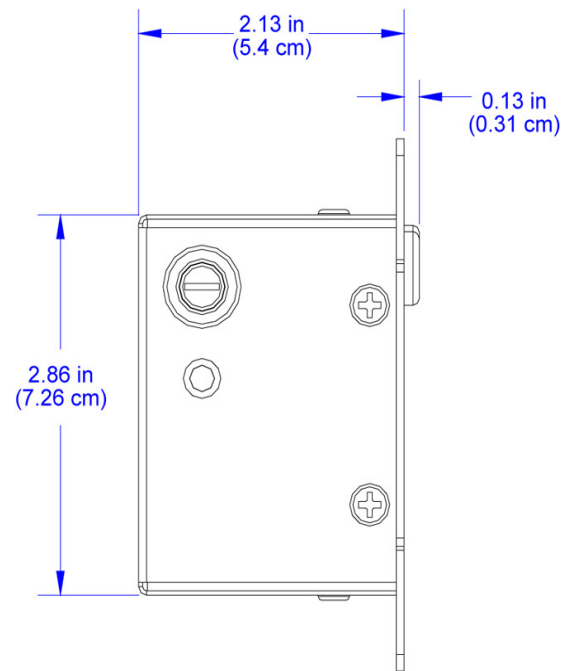
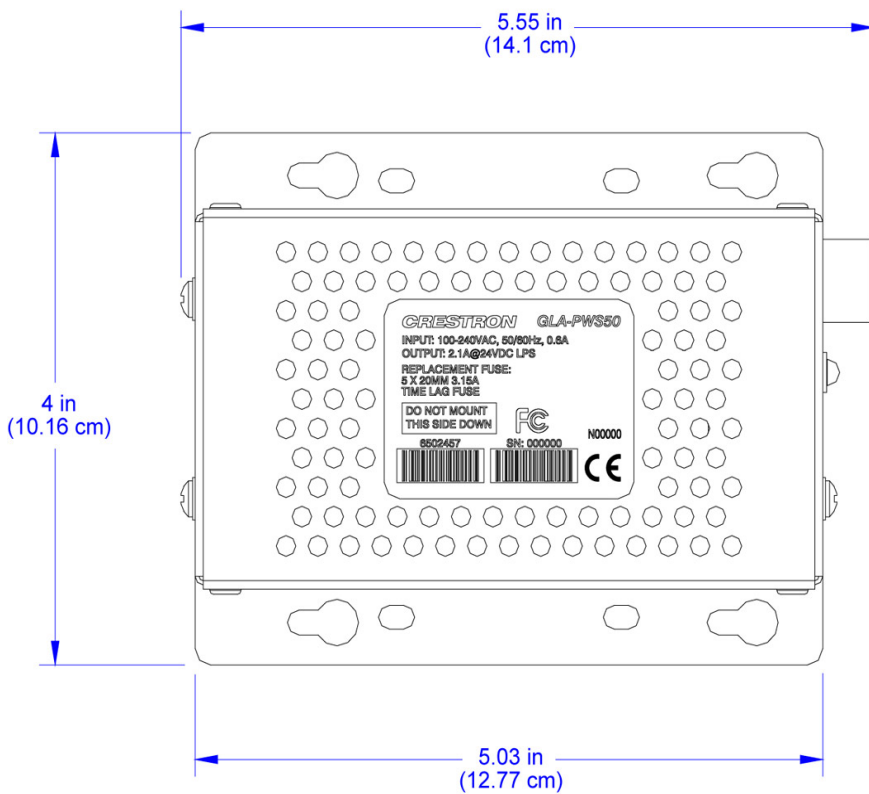
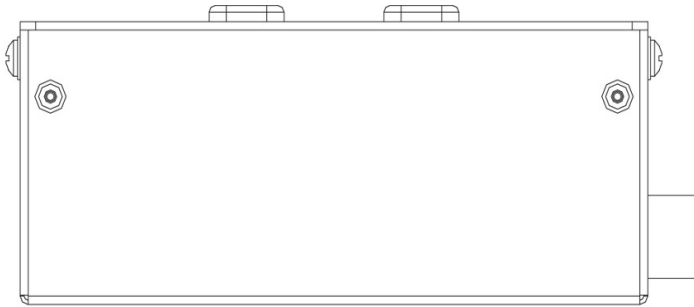
Weight

1.2 lb (0.54 kg)

Available Models

GLA-PWS50: Wall Mount 50 Watt Cresnet Power Supply

GLA-PWS50 Wall Mount 50 Watt Cresnet Power Supply



GLPAC-DIMFLV

Crestron Green Light® Integrated Lighting System

- > Up to 8 channels of 0-10 Volt fluorescent and LED dimming
- > Works in 100 to 277 VAC systems
- > 16-Amp load rating per channel
- > Built-in Control System with Cresnet® and Ethernet port
- > Preloaded program for quick setup
- > Optional real-time power monitoring
- > Supports keypad control, occupancy sensing, and daylight harvesting for up to 4 rooms
- > Positive air gap at each output
- > Phase-independent channels
- > Local controls for setup, testing, and verification
- > Local and remote override capability
- > Non-volatile power failure memory
- > High-speed Ethernet LAN port

The GLPAC-DIMFLV is a Crestron Green Light® integrated lighting system, designed for use as a standalone lighting controller in classrooms, conference rooms, and offices. While able to control 4 or 8 channels of dimmable fluorescent loads, each GLPAC-DIMFLV also provides a link to a centralized Crestron® lighting control system for control and monitoring. Add optional real-time power monitoring and [Crestron Fusion EM®](#) Energy Management Software to help track and minimize energy usage throughout a facility. Cresnet® and Ethernet connectivity afford extensive system configuration using keypads, touch screens, shade controllers, and more.

Flexibility

Each GLPAC-DIMFLV can be used to control a single room, or up to four independent rooms. Single-room control is available right out of the box, with no additional configuration. Multi-room control and other system adjustments are accomplished using local controls on the GLPAC-DIMFLV or via the built-in web interface. And because the GLPAC-DIMFLV is a Crestron 2-Series control processor, limitless customization is possible for specialized applications.

Save Energy

Built-in support for occupancy and photo sensors helps to strike a perfect balance between daylight harvesting and comfort, reducing energy costs. Automatically turn off lights in unoccupied areas and maintain balanced bulb brightness with the natural light level in the room. Crestron GLS sensors can be placed strategically in each space to maximize the benefits of energy management.

Built-in Power Monitoring

Optional power monitoring tracks the real time energy usage of each load, 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.



GLPAC-DIMFLV8 shown in photo

Easy Deployment

Packaged in one metal enclosure, the GLPAC-DIMFLV can be deployed in small spaces, including plenum ceilings. The surface-mount GLPAC-DIMFLV can be affixed to a wall or ceiling rafter, cleanly out of sight. Standard wire-entry knockouts are provided.

For more information on Crestron Green Light commercial lighting products, please contact Crestron [Sales Support Services](#).

SPECIFICATIONS

Load Ratings

Dimmer Channels: GLPAC-DIMFLV4(-PM): 4

GLPAC-DIMFLV8(-PM): 8

Per Channel: 16 Amps @ 100 to 277 Volts AC, 50/60 Hz

Dim Load Types: 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, LED, Motor

Relay Lifetime: Resistive rating: 100,000 on/off operations, 50A @ 277 VAC; General rating: 50,000 on/off operations, 16A @ 120/277 VAC

Power Requirements

Main Power: 100-277 Volts AC, 50/60Hz, supplied via channel 1 (LINE 1, NEUT)

Available Cresnet Power: 10 Watts at 24 Volts DC, shared with occupancy and photocell sensor ports

Connectors (Class 1) – 4-Channel Models Only

NEUT: (2) terminal blocks, paralleled, line input neutral

LINE 1 - LINE 4: (8) terminal blocks, paralleled, line power inputs

SW1 - SW4: (4) terminal blocks, switch channel outputs

GLPAC-DIMFLV Crestron Green Light® Integrated Lighting System

0-10V DIM (+,-) 1-4: (1) 8 position terminal block, dim channel output, galvanically isolated; may be wired as Class 1 or Class 2

Connectors (Class 1) – 8-Channel Models Only

NEUT: (2) terminal blocks, paralleled, line input neutral

LINE 1 - LINE 8: (16) terminal blocks; 2 connections per channel, paralleled, allows for easy daisy chaining; line power inputs

SW1 - SW8: (8) terminal blocks, switch channel outputs

0-10V DIM (+,-) 1-8: (2) 8 position terminal block, dim channel output, galvanically isolated; may be wired as Class 1 or Class 2

Connectors (Class 2)

NET SLAVE: (1) 4-pin 3.5mm detachable terminal block; Cresnet ports for connection to main control processor or other GLPAC-DIMFLVs, does not output 24 Volts DC

OVR: (1) 2-pin 3.5mm detachable terminal block, comprising (2) inputs for external contact closures to trigger the preset Override state

NET LOCAL: (1) 4-pin 3.5mm detachable terminal block; Cresnet ports for connection to local devices such as keypads, shade controllers, and touch screens; outputs 24 Volts DC

RELAY 1-4 (-PM models only): (1) 8-pin 3.5mm detachable terminal blocks comprising (4) normally open, isolated relays; Programmable or used for interfacing to local Variable Air Volume box to indicate room occupancy; Rated 1 Amp, 30 Volts DC

INPUT 1-8: (1) 9-pin 3.5mm detachable terminal block comprising (8) digital input ports, referenced to ground

OCCUPANCY SENSOR INPUT 1-4: (1) 6-pin 3.5mm detachable terminal block comprising (4) occupancy sensor inputs, (1) +24VDC, and (1) GND port (provides sensors with power)

PHOTOCELL 1-4: (1) 6-pin 3.5mm detachable terminal block comprising (4) photocell sensor inputs, (1) +24VDC, and (1) GND port (provides sensors with power); Min-change setting can be adjusted to control how often sensor reports changes in values

USB: (1) USB Type B console port, for communication with Crestron Toolbox™

LAN: (1) 8-wire RJ45 with 2 LED indicators; 10/100BaseT Ethernet port; Green LED indicates link status; Yellow LED indicates Ethernet activity

Controls & Indicators

MODE: (2) 7-Segment green LED digits and (2) miniature pushbuttons for setting mode during setup or local control

VALUE: (2) 7-Segment green LED digits and (2) miniature pushbuttons for setting value

SAVE: (1) Red LED and (1) miniature pushbutton for saving settings

CANCEL: (1) Red LED and (1) miniature pushbutton for cancelling current operation

PWR: (1) Green LED; solid illumination indicates line power is applied to NEUT and LINE1

HW-R: (1) Recessed miniature pushbutton for hardware reset (reboots the processor)

SW-R: (1) Recessed miniature pushbutton for software reset (restarts the SIMPL program)

NET-C: (1) Yellow LED; indicates communication with main control

processor (if being used)

NET-L: (1) Yellow LED; indicates communication with local devices

MSG: (1) Red LED; indicates control system has generated an error message

OVR: (1) Red LED and (1) miniature pushbutton for enabling override mode

ON/OFF: (8) Red LEDs and (8) miniature pushbuttons for individual manual channel activation and dimming

Enclosure

Surface mount metal box enclosure, suitable for mounting in plenum airspace

Environmental

Temperature: 32° to 104°F (0° to 40°C)

Humidity: 10% to 90% RH (non-condensing)

Dimensions

Height: 12.13 in (308 mm)

Width: 14.13 in (359 mm)

Depth: 4.06 in (103 mm)

Electrical Regulatory Certifications

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

UL924 Listed upon request



MODELS & ACCESSORIES

Available Models

GLPAC-DIMFLV4: Green Light Integrated Lighting System, 4-Channel

GLPAC-DIMFLV4-CP: Green Light Integrated Lighting System, 4-Channel w/Chicago Plenum Enclosure

GLPAC-DIMFLV4-PM: Green Light Integrated Lighting System, 4-Channel w/Power Monitoring

GLPAC-DIMFLV4-PM-CP: Green Light Integrated Lighting System, 4-Channel w/Power Monitoring & Chicago Plenum Enclosure

GLPAC-DIMFLV8: Green Light Integrated Lighting System, 8-Channel

GLPAC-DIMFLV8-CP: Green Light Integrated Lighting System, 8-Channel w/Chicago Plenum Enclosure

GLPAC-DIMFLV8-PM: Green Light Integrated Lighting System, 8-Channel w/Power Monitoring

GLPAC-DIMFLV8-PM-CP: Green Light Integrated Lighting System, 8-Channel w/Power Monitoring & Chicago Plenum Enclosure

GLPAC-DIMFLV Crestron Green Light® Integrated Lighting System

Available Accessories

CNX-B2B Series: Designer Keypads
C2N-CBD-E Series: Cameo® Express Keypads, Standard Mount
C2N-CBD-P Series: Cameo® Keypads, Standard Mount
C2N-CBF-P Series: Cameo® Keypads, Flush Mount
GLS-SIM: Crestron Green Light® Sensor Integration Module
GLS-LEXT: Crestron Green Light® Photocell, Outdoor
GLS-LOL: Crestron Green Light® Photocell, Open-Loop
GLS-LCL: Crestron Green Light® Photocell, Closed-Loop
GLS-ODT-C-CN: Dual-Technology Occupancy Sensor with Cresnet®, 2000 Sq. Ft.
GLS-OIR-C-CN: Passive Infrared Occupancy Sensor with Cresnet®
GLS-ODT-C-500: Crestron Green Light® Dual-Technology Ceiling Mount Occupancy Sensor, 500 Sq. Ft.
GLS-ODT-C-1000: Crestron Green Light® Dual-Technology Ceiling Mount Occupancy Sensor, 1000 Sq. Ft.
GLS-ODT-C-2000: Crestron Green Light® Dual-Technology Ceiling Mount Occupancy Sensor, 2000 Sq. Ft.
GLS-ODT-W-1200: Crestron Green Light® Dual-Technology Wall Mount Occupancy Sensor, 1200 Sq. Ft.
GLS-OIR-C-450: Crestron Green Light® Passive Infrared Ceiling Mount Occupancy Sensor, 450 Sq. Ft.
GLS-OIR-C-1500: Crestron Green Light® Passive Infrared Ceiling Mount Occupancy Sensor, 1500 Sq. Ft.
GLS-OIR-W-2500: Crestron Green Light® Passive Infrared Wall Mount Occupancy Sensor, 2500 Sq. Ft.
GLS-PLS-120/277: Power Loss Sensor, 3-Phase, 120 or 277 Volts
DIN-PWS50: DIN Rail 50 Watt Cresnet Power Supply
GLA-PWS50: Wall Mount 50 Watt Cresnet Power Supply

Notes:

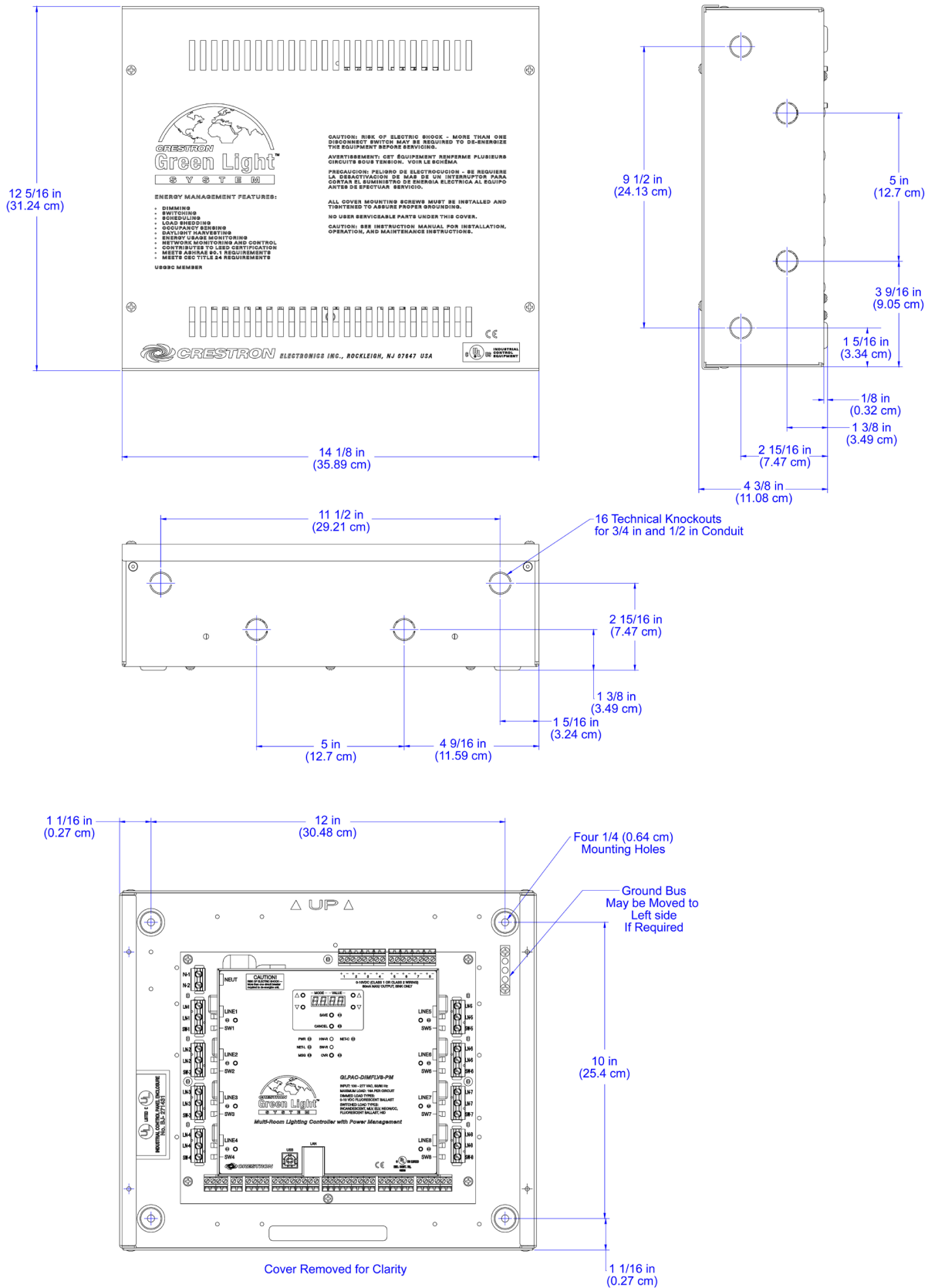
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GLPAC-DIMFLV Crestron Green Light® Integrated Lighting System

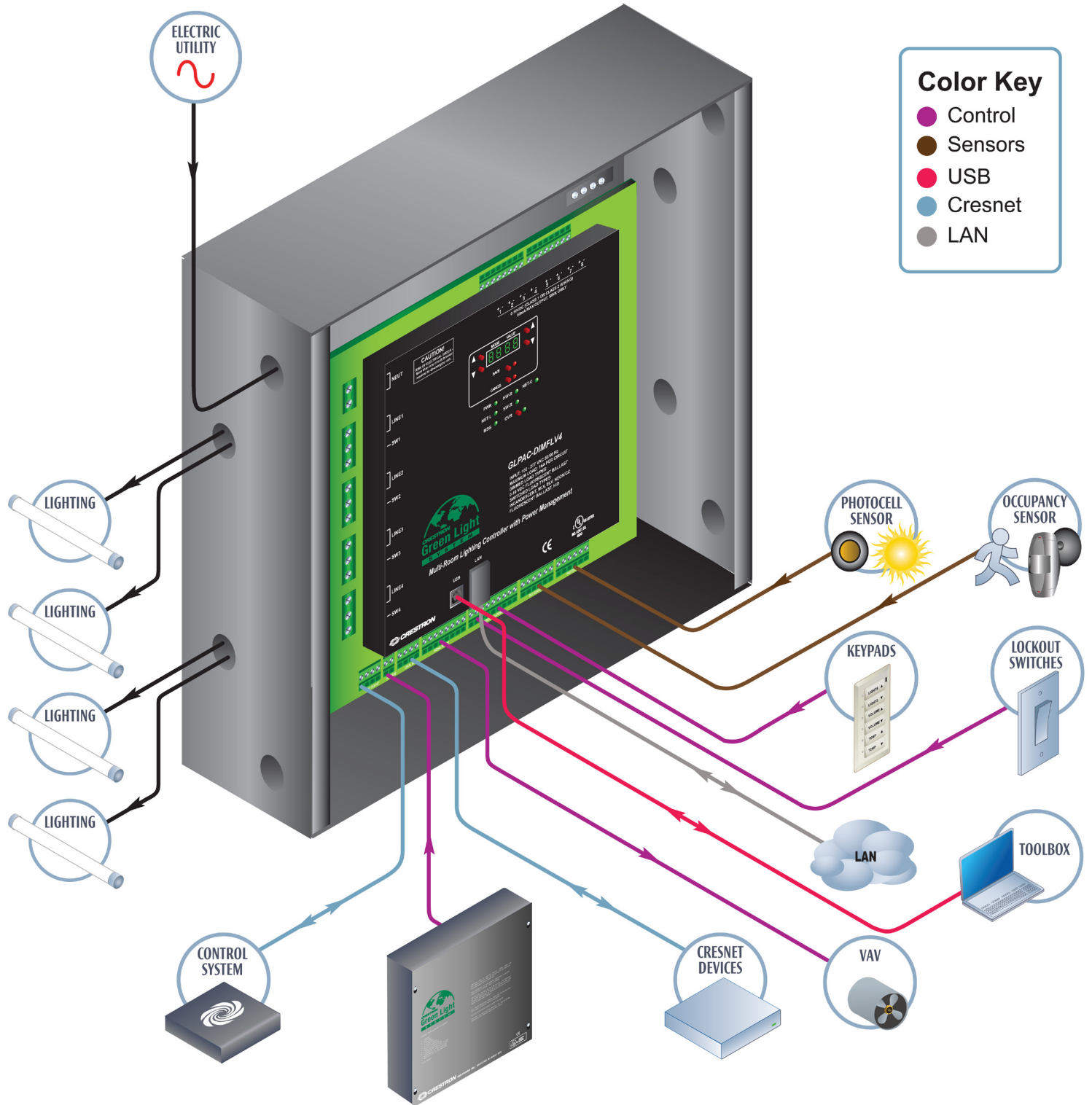
CAD DRAWING (GLPAC-DIMFLV8-PM SHOWN)



GLPAC-DIMFLV

Crestron Green Light® Integrated Lighting System

APPLICATION DIAGRAM



Cameo® Keypad, Standard Mount



- > Stylish and versatile wall mount keypad
- > Standard electrical box installation
- > 12 color-matched smooth and textured finishes
- > Ascent® solid metal faceplates available separately^[2]
- > Versatile combinations of 2 to 8 pushbuttons
- > Installer-configurable with choice of 4 button sizes
- > “Split” buttons for “up/down” and “on/off” functions^[4]
- > “Button Events” enable tap, double-tap, and hold functionality
- > Customizable backlit button engraving^[1]
- > White LED feedback indicators
- > Built-in LED blinking and bargraph logic
- > Auto-dimmable backlight and LED intensity
- > Ambient light sensor
- > Dual digital/analog input ports for external sensors
- > Quick and easy installation
- > Cresnet® wired communications
- > EMerge Alliance® compatible

The Cameo® Standard Mount Keypad (C2N-CBD-P) from Crestron® presents a fresh, innovative concept in keypad design, featuring a highly configurable one-gang wall mount form factor that is at once inviting to the touch and appealing to the eye. The C2N-CBD-P easily installs alongside other low-voltage in-wall devices to deliver an advanced custom keypad control solution as part of a complete Crestron control system.

Customizable Buttons

Exquisitely simple yet highly customizable, a single Cameo Keypad can be configured easily by the installer to provide from two to eight buttons. Each keypad is actually furnished with an assortment of button caps in four different sizes to support a variety of physical layouts. Button caps may also be ordered with custom backlit laser engraving to clearly designate each button’s function.^[1]

Through programming, each button can be configured to use “button events,” affording up to three separate functions per button by tapping, double-tapping, or holding the button. “Shift key” functionality is even possible, allowing any button to be held while pressing another.

Auto-dimming Backlight

High-quality backlit laser-engraving^[1] provides customizable button text that’s easy to read under any lighting condition. A built-in light sensor controls the backlight intensity automatically to achieve a crisp, legible appearance in both darkened and fully lit rooms.



Actual colors may vary.

C2N-CBD-P Cameo® Keypad, Standard Mount

Enhanced LED Feedback

Six pinhead-sized white LEDs afford fully customizable feedback to show the status of each button. Ten blink patterns are built in, enabling blinking LED feedback with simplified programming and reduced traffic on the Cresnet® network. Onboard bargraph logic allows the feedback LEDs to function as a 6-segment bargraph display, providing clear level indication while adjusting lighting and audio settings. Auto-dimming LED intensity ensures optimal visibility under varying lighting conditions.

Ambient Light Sensor

In addition to controlling the backlight and LED intensity, the built-in light sensor can also be utilized by the control system to support basic daylight harvesting and other programmatic functions.

Control Ports

Dual digital/analog input ports onboard the C2N-CBD-P provide a local interface for a range of devices including Crestron GLS Occupancy Sensors and Photocells, or any device providing a contact closure, DC logic, or 0-10VDC analog voltage. Using the control ports, it's possible to add monitoring of room occupancy, ambient light level, door closures, and other conditions without having to home run extra wiring to the central equipment location.

Cresnet®

Reliable wired connectivity is afforded via the Cresnet network, utilizing a simple 4-conductor interface carrying 24 Volt DC power and bidirectional communications between the Cameo keypad and Crestron control system. Cresnet supports up to 252 keypads and other devices.

Standard Wall Mount

Cameo Standard Mount Keypads are designed for installation in a standard electrical wall box, perfect for installation in a multi-gang box alongside other low-voltage devices. Available in a selection of 12 "Smooth" and "Textured" finishes, Cameo Keypads match perfectly with popular off-the-shelf decorator-style faceplates.

Ascent® Metal Faceplates

For the ultimate in style and elegance, Crestron offers the Ascent collection of solid metal faceplates (CBD-FP-ASCENT^[2]), providing Cameo keypads with a contemporary appearance in a range of luxurious designer finishes.

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 not-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.



SPECIFICATIONS

Buttons

Keypad Buttons: Configurable for 2 to 8 single-action pushbuttons

Button Events: Programmable for Normal, Tap, Double-Tap, and Hold

Button Caps: Includes (2) large, (3) medium, (5) small, and (2 pair) split small button caps^[4]. All button caps are blank. Custom backlit engraved button caps are available separately.

Backlight: White LED backlight for button engraving, software-adjustable intensity, auto-dimmable

LED Indicators

Feedback: (6) White LEDs, one per each of 6 small button positions; Programmable, auto-dimmable, software-adjustable intensity, 10 blinking patterns

Bargraph: (1) 6-segment bargraph display utilizing the 6 feedback LEDs

Light Sensor

Photosensor for control of auto-dimming function;
Can be configured to report ambient light level to control system

Connectors

NET: 4-pin 3.5mm detachable terminal block;
Cresnet slave port, connects to Cresnet control network

INPUT 1 – 2: (1) 3-pin 3.5mm detachable terminal block comprising (2) digital/analog input ports (referenced to GND);

Digital Input: Rated for 0-24 Volts DC, input impedance 200k Ohms, logic threshold 1.24 Volts DC;

Analog Input: Rated for 0-10 Volts DC, protected to 24 Volts DC maximum, input impedance 200k Ohms;

Programmable 5 Volts, 2k Ohms pull-up resistor per pin

Power Requirements

Cresnet Power Usage: 1 Watt (0.05 Amps @ 24 Volts DC)

Environmental

Temperature: 32° to 113°F (0° to 45°C)

Humidity: 10% to 90% RH (non-condensing)

Heat Dissipation: 3.4 BTU/Hr

Construction

Chassis: Plastic

Mounting: Mounts in a 1-gang or larger electrical box or mud ring

Faceplates: Requires a decorator style faceplate (not included) or Crestron CBD-FP-ASCENT series faceplate^[2]

C2N-CBD-P Cameo® Keypad, Standard Mount

Dimensions

Height: 4.13 in (105 mm) without faceplate

Width: 1.75 in (45 mm) without faceplate

Depth: 1.19 in (31 mm) without connector

Weight

2.3 oz (64 g)

MODELS & ACCESSORIES

Available Models

C2N-CBD-P-A-S: Cameo® Keypad, Standard Mount, Almond Smooth
C2N-CBD-P-A-T: Cameo® Keypad, Standard Mount, Almond Textured
C2N-CBD-P-B-S: Cameo® Keypad, Standard Mount, Black Smooth
C2N-CBD-P-B-T: Cameo® Keypad, Standard Mount, Black Textured
C2N-CBD-P-BRN-S: Cameo® Keypad, Standard Mount, Brown Smooth
C2N-CBD-P-DA-S: Cameo® Keypad, Standard Mount, Dark Almond Smooth
C2N-CBD-P-DSK-T: Cameo® Keypad, Standard Mount, Dusk Textured
C2N-CBD-P-GRY-S: Cameo® Keypad, Standard Mount, Gray Smooth
C2N-CBD-P-IVR-S: Cameo® Keypad, Standard Mount, Ivory Smooth
C2N-CBD-P-LAT-T: Cameo® Keypad, Standard Mount, Latte Textured
C2N-CBD-P-W-S: Cameo® Keypad, Standard Mount, White Smooth
C2N-CBD-P-W-T: Cameo® Keypad, Standard Mount, White Textured

Available Accessories

CB2-BTN: Large Backlit Engravable Button Cap for Cameo Keypads, [Specify Color]
CB3-BTN: Medium Backlit Engravable Button Cap for Cameo Keypads, [Specify Color]
CB6-BTN: Small Backlit Engravable Button Cap for Cameo Keypads, [Specify Color]
CB6S-BTN: Split Small Backlit Engravable Button Cap Pair for Cameo Keypads, [Specify Color]
CBD-FP-ASCENT: Ascent® Solid Metal Faceplate for Cameo® Keypad, Standard Mount [specify button layout and finish]
CCR-L-1: Crestron® Color Ring
CCR-FP-ASCENT-1: Ascent® Color Ring
CRESNET-HP-NP: Cresnet® “High-Power” Control Cable, non-plenum
CRESNET-NP: Cresnet® Control Cable, non-plenum
CRESNET-P: Cresnet® Control Cable, plenum

Notes:

1. Custom engraving sold separately.
2. Item(s) sold separately.
3. Information regarding the EMerge Alliance can be found at www.emergealliance.org
4. Split small buttons may be installed in the bottom two positions only.

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.

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C2N-CBD-P Cameo® Keypad, Standard Mount

