D SERIES DIMMING PANEL

OVERVIEW

The NexLight™ D Series dimming control panel provides control of lighting loads using world class 20A mechanically latching relays for ON/OFF control and CRC4214 dimming units that provide up to 100 mA (sinking current) of dimming per channel. These lighting control panels come in a NEMA/Type 1 (3R available) enclosure and are factory wired in NexLight's UL508A shop. NexLight panel mounted system components are controlled via a dual processor CPU with an astronomical timeclock function. The easy-to-use Graphic User Interface (GUI) may be accessed through a Personal Computer (PC) for real-time programming, monitoring, and override of controlled loads on the NexLight system. The scheduling function is also accessed through the GUI and provides the end user with full control of the system whether on-site or from a remote location. Networking multiple panels together using the global addressing feature provides seamless control from a single platform.

features

- **20A Mechanically Latching Relays**
- **100 mA of Sinking Current per 0-10V Dimming Channel**
- **Graphic User Interface through a PC**
- **Networkable via Ethernet**
- **BACnet connectivity for BMS available via NXL-BMS accessory panel**
- **Built-in Real-Time-Clock (RTC) for scheduling**

Specifications

Physical

NEMA/Type:	1 (3R available, add -3R to part number)
Mounting:	Surface Mount (suitable for Plenum Mount)
Operating Temperature:	14° to 122°F (-10°C to 55°C)

Electrical (Control Wiring)

Output Signal:	±24VAC, 500mA
Input Signal:	24VAC, Class II
Ethernet:	10/100 Ethernet TCP/IP Modbus TCP (BACnet via NXL-BMS) Requires UPT Cable Category 5 or greater Connection via PoE Port not Allowed
Max # of units:	250 (Ethernet)

Relays

UL/cUL Listed:	20A 300 VAC Ballast 20A 300/347 VAC General Use 16A 300 VAC Electronic Ballast ½ HP 110-125 VAC Motor 1½ HP 220-277 VAC Motor

Dimming Channels

0-10V Sinking Current:	100 mA per dimming channel
High Trim:	100% down to 50%
Low Trim:	0% up to 50%

Additional accessories

NXL-OPC:	Outdoor Photocell Integration Panel, Remote Mounting (8"H x 8"W x 4"D)
NXL-00P5:	Dimming Expansion, (8) Channels of 0-10 Dimming (100mA Sinking per Channel) (8"H x 8"W x 4"D)
NXL-AVI:	A/V Integration, (8) Dry Contact Inputs (8"H x 8"W x 4"D)
NXL-BMS:	BACnet Protocol Conversion Panel for Building Management System (BMS) Integration (12"H x 12"W x 6"D)
NXL-AMP:	Amplifier Panel for NexLight Data Bus, Supports an additional 485 mA of system devices (12"H x 12"W x 6"D)

**See individual accessory specification sheet for more information

NexLight, Inc. | 7877 College Road, Suite 105, Baxter, MN 56425
218-828-3700 | www.nexlight.com
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Five-Year Limited Warranty.

NXL-D8i

Alternate Available Part Numbers:
NXL-D8a

Included Components

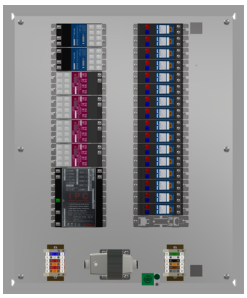
8	CRC7000 20 Amp Relays
2	CRC4214 Dimming Control Units (4 Channels each)
1	CRC1201 IPC[1]
1	CRC2180 Relay Controller
1	TR-5024 Transformer
1	TB-2-6-6 Terminal Block Assembly
1	PA-240-1 Panel Assembly

Physical Specifications

NEMA/Type:	1 (3R available, add -3R to part #)
Mounting:	Surface Mount
Dimensions:	24.00"H x 20.00"W x 6.00"D
Weight:	47 lbs
Addresses Available:	256
Addresses Used:	16
mA Available:	450
mA Draw:	24
Operating Temperature:	14° to 122°F (-10°C to 55°C)

1 Alternate System Devices Available;
Reference Part Number Information Table

NXL-D16i



Alternate Available Part Numbers:
NXL-D16a

Included Components

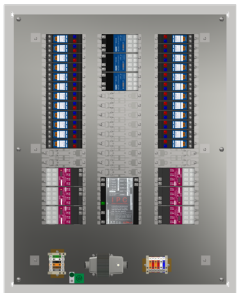
16	CRC7000 20 Amp Relays
4	CRC4214 Dimming Control Units (4 Channels each)
1	CRC1201 IPC[1]
2	CRC2180 Relay Controller
1	TR-5024 Transformer
1	TB-2-6-6 Terminal Block Assembly
1	PA-240-1 Panel Assembly

Physical Specifications

NEMA/Type:	1 (3R available, add -3R to part #)
Mounting:	Surface Mount
Dimensions:	24.00"H x 20.00"W x 6.00"D
Weight:	51 lbs
Addresses Available:	256
Addresses Used:	32
mA Available:	450
mA Draw:	48
Operating Temperature:	14° to 122°F (-10°C to 55°C)

1 Alternate System Devices Available;
Reference Part Number Information Table

NXL-D24i



Alternate Available Part Numbers:
NXL-D24a

Included Components

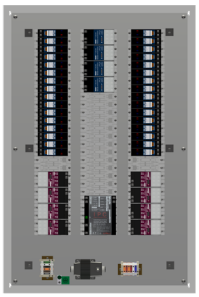
24	CRC7000 20 Amp Relays
6	CRC4214 Dimming Control Units (4 Channels each)
1	CRC1201 IPC[1]
3	CRC2180 Relay Controller
1	TR-5024 Transformer
1	TB-2-6-6 Terminal Block Assembly
1	PA-300-1 Panel Assembly

Physical Specifications

NEMA/Type:	1 (3R available, add -3R to part #)
Mounting:	Surface Mount
Dimensions:	30.00"H x 24.00"W x 6.00"D
Weight:	72 lbs
Addresses Available:	256
Addresses Used:	48
mA Available:	450
mA Draw:	72
Operating Temperature:	14° to 122°F (-10°C to 55°C)

1 Alternate System Devices Available;
Reference Part Number Information Table

NXL-D32i



Alternate Available Part Numbers:
NXL-D32a

Included Components

32	CRC7000 20 Amp Relays
8	CRC4214 Dimming Control Units (4 Channels each)
1	CRC1201 IPC[1]
4	CRC2180 Relay Controller
1	TR-5024 Transformer
1	TB-2-6-6 Terminal Block Assembly
1	PA-360-1 Panel Assembly

Physical Specifications

NEMA/Type:	1 (3R available, add -3R to part #)
Mounting:	Surface Mount
Dimensions:	36.00"H x 24.00"W x 6.00"D
Weight:	85 lbs
Addresses Available:	256
Addresses Used:	64
mA Available:	450
mA Draw:	96
Operating Temperature:	14° to 122°F (-10°C to 55°C)

1 Alternate System Devices Available;
Reference Part Number Information Table

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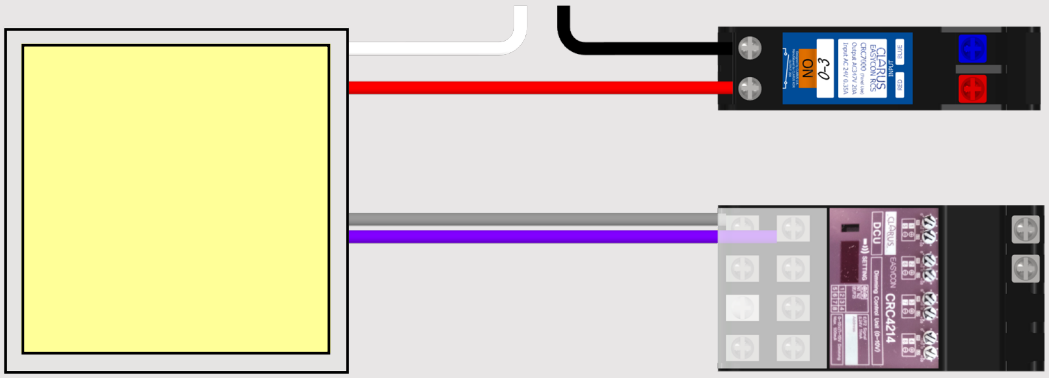
PART NUMBER INFORMATION TABLE

Part Number Information		
Example Used:	NXL-D8i	
(D) D Series Panel	(8) 20A Relays	(i) System Device CRC1201
Available Relay/Dimming Channel Quantities for the D Series Panels: 8, 16, 24, 32,		
Available System Devices for the D Series Panels: (i) CRC1201, (a) CRC6001*		
Component P/N	Description	Addresses Available
CRC1201	Large Capacity CPU	256
CRC6001	Data Bus Amplifier	0
*Use of the CRC6001 makes the D Series Panel an Auxiliary Panel		

Wiring diagram



**All wiring colors are for illustrative purposes only. Please adhere to local code and ordinance when selecting appropriate wire insulation colors.

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PANEL SELECTION TABLE

PANEL SELECTED	PART #	DESCRIPTION	SYSTEM DEVICE USED	ADDRESSES AVAILABLE
☐	NXL-D8i	8 Relay Dimming Panel, Astronomic Timeclock (IPC) (24"H x 20"W x 6"D)	CRC1201	240
☐	NXL-D8a	8 Relay Dimming Panel, Astronomic Timeclock (AUX) (24"H x 20"W x 6"D)	CRC6001	0
☐	NXL-D16i	16 Relay Dimming Panel, Astronomic Timeclock (IPC) (24"H x 20"W x 6"D)	CRC1201	224
☐	NXL-D16a	16 Relay Dimming Panel, Astronomic Timeclock (AUX) (24"H x 20"W x 6"D)	CRC6001	0
☐	NXL-D24i	24 Relay Dimming Panel, Astronomic Timeclock (IPC) (30"H x 24"W x 6"D)	CRC1201	208
☐	NXL-D24a	24 Relay Dimming Panel, Astronomic Timeclock (AUX) (30"H x 24"W x 6"D)	CRC6001	0
☐	NXL-D32i	32 Relay Dimming Panel, Astronomic Timeclock (IPC) (30"H x 24"W x 6"D)	CRC1201	192
☐	NXL-D32a	32 Relay Dimming Panel, Astronomic Timeclock (AUX) (30"H x 24"W x 6"D)	CRC6001	0

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PANEL NAME:		IP ADDRESS:	
MOUNTING LOCATION:		SUBNET MASK:	
TRANSFORMER FEED:		DEFAULT GATEWAY:	
PANEL TYPE:	NXL-D8i	PANEL DIMENSIONS:	24.00"H x 20.00"W x 6.00"D

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LEFT SIDE					RIGHT SIDE			
LOAD DESCRIPTION	SOURCE	ADDRESS		DEVICE	DEVICE	ADDRESS	SOURCE	LOAD DESCRIPTION
CRC2180 RELAY CONTROLLER					CRC7000	0-1		
					CRC7000	0-2		
SPACE					CRC7000	0-3		
SPACE					CRC7000	0-4		
SPACE					CRC7000	1-1		
SPACE					CRC7000	1-2		
SPACE					CRC7000	1-3		
SPACE					CRC7000	1-4		
	CHANNEL 1	2	-1	CRC4214 0-10 DIMMER	SPACE			
	CHANNEL 2		-2					
	CHANNEL 3		-3		SPACE			
	CHANNEL 4		-4					
	CHANNEL 1	3	-1	CRC4214 0-10 DIMMER	SPACE			
	CHANNEL 2		-2					
	CHANNEL 3		-3		SPACE			
	CHANNEL 4		-4					
CRC1201 (IPC) SPACE FOR CPU					SPACE			
					SPACE			
					SPACE			
					SPACE			
					SPACE			

INSTALLING CONTRACTOR TO USE: 16 AWG, BELDEN 6200 UE OR EQUAL; REFERENCE 2-WIRE DATA BUS WIRING DETAIL

PANEL NAME:		IP ADDRESS:	N/A
MOUNTING LOCATION:		SUBNET MASK:	N/A
TRANSFORMER FEED:		DEFAULT GATEWAY:	N/A
PANEL TYPE:	NXL-D8a	PANEL DIMENSIONS:	24.00"H x 20.00"W x 6.00"D

NEXLIGHT

LEFT SIDE					RIGHT SIDE			
LOAD DESCRIPTION	SOURCE	ADDRESS		DEVICE	DEVICE	ADDRESS	SOURCE	LOAD DESCRIPTION
CRC2180 RELAY CONTROLLER					CRC7000	-1		
					CRC7000	-2		
SPACE					CRC7000	-3		
SPACE					CRC7000	-4		
SPACE					CRC7000	-1		
SPACE					CRC7000	-2		
SPACE					CRC7000	-3		
SPACE					CRC7000	-4		
	CHANNEL 1		-1	CRC4214 0-10 DIMMER	SPACE			
	CHANNEL 2		-2					
	CHANNEL 3		-3		SPACE			
	CHANNEL 4		-4					
	CHANNEL 1		-1	CRC4214 0-10 DIMMER	SPACE			
	CHANNEL 2		-2					
	CHANNEL 3		-3		SPACE			
	CHANNEL 4		-4					
CRC6001 (AMP) SPACE FOR AMPLIFIER					SPACE			
					SPACE			
					SPACE			
					SPACE			
					SPACE			

INSTALLING CONTRACTOR TO USE: 16 AWG, BELDEN 6200 UE OR EQUAL; REFERENCE 2-WIRE DATA BUS WIRING DETAIL