



R SERIES RELAY PANEL

OVERVIEW

The NexLight™ R Series relay control panel provides ON/OFF control of lighting and/or receptacle loads using world class 20A mechanically latching relays. These lighting control panels come in a NEMA/Type 1 enclosure (3R available) 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**
- **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

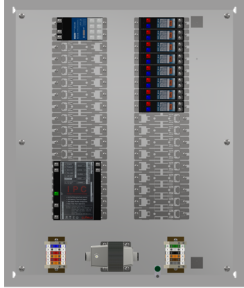
UL/cUL Listed: 20A 300 VAC Ballast
 20A 300/347 VAC General Use
 16A 300 VAC Electronic Ballast
 ½ HP 110-125 VAC Motor
 1½ HP 220-277 VAC Motor

ADDITIONAL ACCESSORIES

NXL-OPC: Outdoor PhotoCell Integration Panel, Remote Mounting (8"H x 8"W x 4"D)
 NXL-OOP5: 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

NXL-R8i



Alternate Available Part Numbers:
NXL-R8a

Included Components

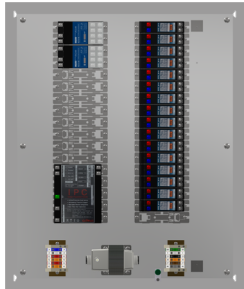
- 8 CRC7000 20 Amp Relays
- 1 CRC1201 IPC₁
- 1 CRC2180 Relay Controller
- 1 TR-5024 Transformer
- 1 TB-2-6-6 Terminal Block Assembly
- 1 PA-240-1 Panel Assembly

Physical Specifications

NEMA/Type:	1 (3R available, add -3R to part number)
Mounting:	Surface Mount
Dimensions:	24.00"H x 20.00"W x 6.00"D
Weight:	54 lbs 11 oz
Addresses Available:	256
Addresses Used:	8
mA Available:	450
mA Draw:	2
Operating Temperature:	14° to 122°F (-10°C to 55°C)

[1 Alternate System Devices Available;
Reference Part Number Information Table](#)

NXL-R16i



Alternate Available Part Numbers:
NXL-R16a

Included Components

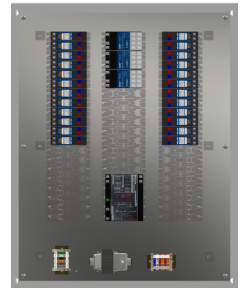
- 16 CRC7000 20 Amp Relays
- 1 CRC1201 IPC₁
- 2 CRC2180 Relay Controller
- 1 TR-5024 Transformer
- 1 TB-2-6-6 Terminal Block Assembly
- 1 PA-240-1 Panel Assembly

Physical Specifications

NEMA/Type:	1 (3R available, add -3R to part number)
Mounting:	Surface Mount
Dimensions:	24.00"H x 20.00"W x 6.00"D
Weight:	58 lbs 2 Oz
Addresses Available:	256
Addresses Used:	16
mA Available:	450
mA Draw:	4
Operating Temperature:	14° to 122°F (-10°C to 55°C)

[1 Alternate System Devices Available;
Reference Part Number Information Table](#)

NXL-R24i



Alternate Available Part Numbers:
NXL-R24a

Included Components

- 24 CRC7000 20 Amp Relays
- 1 CRC1201 SPC₁
- 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 number)
Mounting:	Surface Mount
Dimensions:	30.00"H x 24.00"W x 6.00"D
Weight:	86 lbs 3 oz
Addresses Available:	256
Addresses Used:	24
mA Available:	450
mA Draw:	6
Operating Temperature:	14° to 122°F (-10°C to 55°C)

[1 Alternate System Devices Available;
Reference Part Number Information Table](#)

NXL-R32i



Alternate Available Part Numbers:
NXL-R32a

Included Components

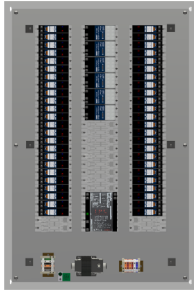
- 32 CRC7000 20 Amp Relays
- 1 CRC1301 SPC₁
- 4 CRC2180 Relay Controller
- 1 TR-5024 Transformer
- 1 TB-2-6-6 Terminal Block Assembly
- 1 PA-300-1 Panel Assembly

Physical Specifications

NEMA/Type:	1 (3R available, add -3R to part number)
Mounting:	Surface Mount
Dimensions:	30.00"H x 24.00"W x 6.00"D
Weight:	89 lbs 10 oz
Addresses Available:	256
Addresses Used:	32
mA Available:	450
mA Draw:	8
Operating Temperature:	14° to 122°F (-10°C to 55°C)

[1 Alternate System Devices Available;
Reference Part Number Information Table](#)

NXL-R48i



Alternate Available Part Numbers:
NXL-R48a

Included Components

- 48 CRC7000 20 Amp Relays
- 1 CRC1201 SPC₁
- 6 CRC2180 Relay Controller
- 1 TR-5024 Transformer
- 1 TB-2-6-6 Terminal Block Assembly
- 1 PA-360-1 Panel Assembly

Physical Specifications

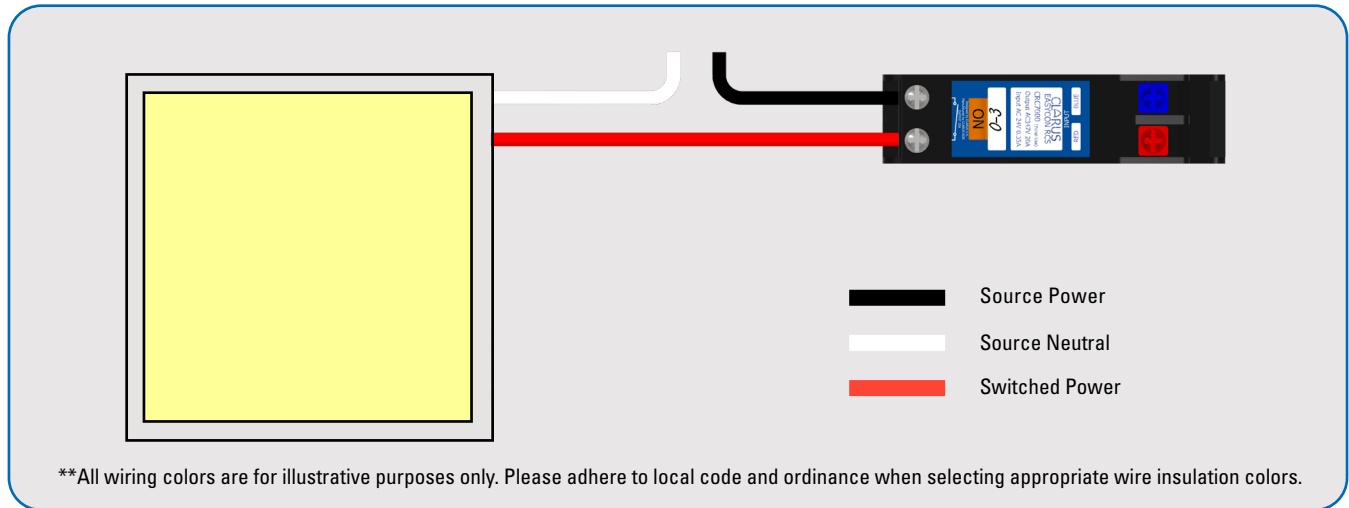
- NEMA/Type: 1 (3R available, add -3R to part number)
- Mounting: Surface Mount
- Dimensions: 36.00"H x 24.00"W x 6.00"D
- Weight: 99 lbs 2 oz
- Addresses Available: 256
- Addresses Used: 48
- mA Available: 450
- mA Draw: 12
- Operating Temperature: 14° to 122°F (-10°C to 55°C)

¹ Alternate System Devices Available;
Reference Part Number Information Table

PART NUMBER INFORMATION TABLE

Part Number Information		
Example Used:	NXL-R8i	
(R) R Series Panel	(8) 20A Relays	(i) System Device CRC1301
Available Relay Quantities for the R Series Panels: 8, 16, 24, 32, 48		
Available System Devices for the R 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 R Series Panel an Auxiliary Panel		

WIRING DIAGRAM



PANEL SELECTION TABLE

PANEL SELECTED	PART #	DESCRIPTION	SYSTEM DEVICE USED	ADDRESSES AVAILABLE
	NXL-R8i	8 Relay Panel, Astronomic Timeclock (IPC) (24"H x 20"W x 6"D)	CRC1201	248
	NXL-R8a	8 Relay Panel, Astronomic Timeclock (AUX) (24"H x 20"W x 6"D)	CRC6001	0
	NXL-R16i	16 Relay Panel, Astronomic Timeclock (IPC) (24"H x 20"W x 6"D)	CRC1201	240
	NXL-R16a	16 Relay Panel, Astronomic Timeclock (AUX) (24"H x 20"W x 6"D)	CRC6001	0
	NXL-R24i	24 Relay Panel, Astronomic Timeclock (IPC) (30"H x 24"W x 6"D)	CRC1201	232
	NXL-R24a	24 Relay Panel, Astronomic Timeclock (AUX) (30"H x 24"W x 6"D)	CRC6001	0
	NXL-R32i	32 Relay Panel, Astronomic Timeclock (IPC) (30"H x 24"W x 6"D)	CRC1201	224
	NXL-R32a	32 Relay Panel, Astronomic Timeclock (AUX) (30"H x 24"W x 6"D)	CRC6001	0
	NXL-R48i	48 Relay Panel, Astronomic Timeclock (IPC) (36"H x 24"W x 6"D)	CRC1201	208
	NXL-R48a	48 Relay Panel, Astronomic Timeclock (AUX) (36"H x 24"W x 6"D)	CRC6001	0

