Part #: | Date: | Project:

# 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 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 (suitable for Plenum Installation) |
| Mounting: | Surface 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<br>Modbus TCP (BACnet via NXL-BMS)<br>Requires UPT Cable Category 5 or greater<br>Connection via PoE Port not Allowed |
| Max # of units: | 250 (Ethernet) |

### Relays

| | |
|---|---|
| UL/cUL Listed: | 20A 300 VAC Ballast<br>20A 300/347 VAC General Use<br>16A 300 VAC Electronic Ballast<br>½ HP 110-125 VAC Motor<br>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-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

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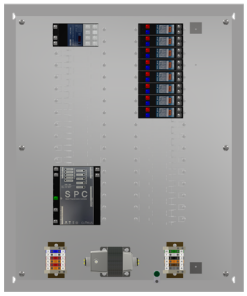
Five-Year Limited Warranty.

## NXL-R8s



Alternate Available Part Numbers:
NXL-R8i & NXL-R8a

### Included Components

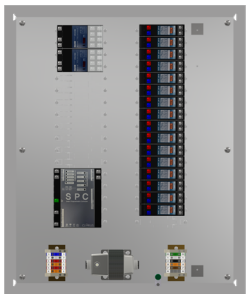
| | |
|---|---|
| 8 | CRC7000 20 Amp Relays |
| 1 | CRC1301 SPC[1] |
| 1 | CRC2180 Relay Controller |
| 1 | TR-5024 Transformer |
| 1 | TB-2-6-6 Terminal Block Assembly |
| 1 | PA-240-1 Panel Assembly |

### Physical Specifications

| | |
|---|---|
| NEMA/Type: | 1 |
| Mounting: | Surface Mount |
| Dimensions: | 24.00"H x 20.00"W x 6.00"D |
| Weight: | 46 lbs |
| Addresses Available: | 64[1] |
| 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-R16s



Alternate Available Part Numbers:
NXL-R16i & NXL-R16a

### Included Components

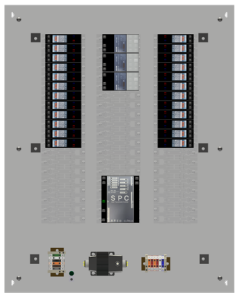
| | |
|---|---|
| 16 | CRC7000 20 Amp Relays |
| 1 | CRC1301 SPC[1] |
| 2 | CRC2180 Relay Controller |
| 1 | TR-5024 Transformer |
| 1 | TB-2-6-6 Terminal Block Assembly |
| 1 | PA-240-1 Panel Assembly |

### Physical Specifications

| | |
|---|---|
| NEMA/Type: | 1 |
| Mounting: | Surface Mount |
| Dimensions: | 24.00"H x 20.00"W x 6.00"D |
| Weight: | 49 lbs |
| Addresses Available: | 64[1] |
| 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-R24s



Alternate Available Part Numbers:
NXL-R24i & NXL-R24a

### Included Components

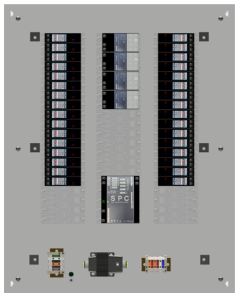
| | |
|---|---|
| 24 | CRC7000 20 Amp Relays |
| 1 | CRC1301 SPC[1] |
| 3 | CRC2180 Relay Controller |
| 1 | TR-5024 Transformer |
| 1 | TB-2-6-6 Terminal Block Assembly |
| 1 | PA-300-1 Panel Assembly |

### Physical Specifications

| | |
|---|---|
| NEMA/Type: | 1 |
| Mounting: | Surface Mount |
| Dimensions: | 30.00"H x 24.00"W x 6.00"D |
| Weight: | 69 lbs |
| Addresses Available: | 64[1] |
| 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-R32s



Alternate Available Part Numbers:
NXL-R32i & NXL-R32a

### Included Components

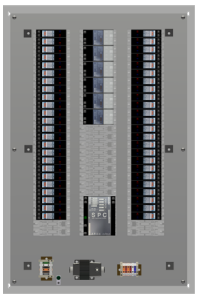
| | |
|---|---|
| 32 | CRC7000 20 Amp Relays |
| 1 | CRC1301 SPC[1] |
| 4 | CRC2180 Relay Controller |
| 1 | TR-5024 Transformer |
| 1 | TB-2-6-6 Terminal Block Assembly |
| 1 | PA-300-1 Panel Assembly |

### Physical Specifications

| | |
|---|---|
| NEMA/Type: | 1 |
| Mounting: | Surface Mount |
| Dimensions: | 30.00"H x 24.00"W x 6.00"D |
| Weight: | 73 lbs |
| Addresses Available: | 64[1] |
| 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-R48s



Alternate Available Part Numbers:
NXL-R48i & NXL-R48a

## Included Components

| | |
|---|---|
| 48 | CRC7000 20 Amp Relays |
| 1 | CRC1301 SPC[1] |
| 6 | CRC2180 Relay Controller |
| 1 | TR-5024 Transformer |
| 1 | TB-2-6-6 Terminal Block Assembly |
| 1 | PA-360-1 Panel Assembly |

## Physical Specifications

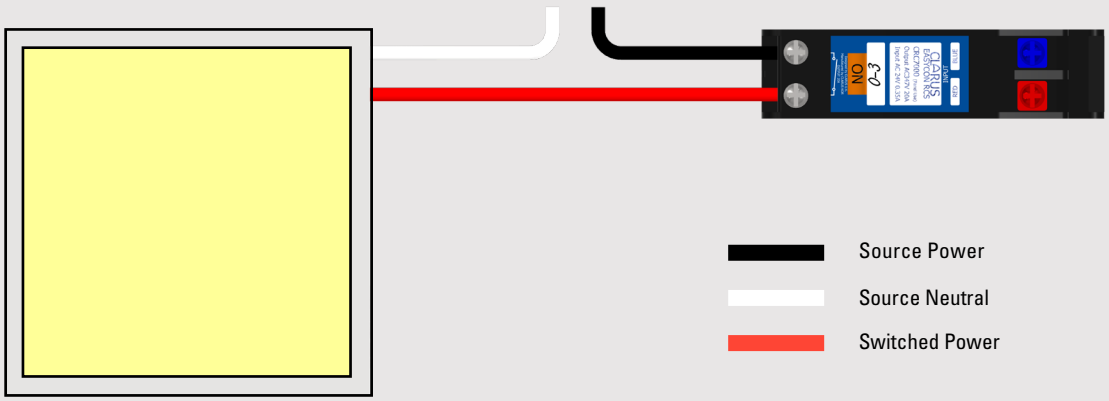
| | |
|---|---|
| NEMA/Type: | 1 |
| Mounting: | Surface Mount |
| Dimensions: | 36.00"H x 24.00"W x 6.00"D |
| Weight: | 80 lbs |
| Addresses Available: | 64[1] |
| Addresses Used: | 48 |
| mA Available: | 450 |
| mA Draw: | 12 |
| Operating Temperature: | 14° to 122°F (-10°C to 55°C) |

1 Alternate System Devices Available;
Reference Part Number Information Table

# PART NUMBER INFORMATION TABLE

| Part Number Information | | |
|---|---|---|
| Example Used: | NXL-R8s | |
| (R) R Series Panel | (8) 20A Relays | (s) 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, (s) CRC1301, (a) CRC6001* | | |
| Component P/N | Description | Addresses Available |
| CRC1201 | Large Capacity CPU | 256 |
| CRC1301 | Small Capacity CPU | 64 |
| CRC6001 | Data Bus Amplifier | 0 |
| *Use of the CRC6001 makes the R 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.

## PANEL SELECTION TABLE

| PANEL SELECTED | PART # | DESCRIPTION | SYSTEM DEVICE USED | ADDRESSES AVAILABLE |
|---|---|---|---|---|
| ☐ | NXL-R8s | 8 Relay Panel, Astronomic Timeclock (SPC) (24"H x 20"W x 6"D) | CRC1301 | 56 |
| ☐ | 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-R16s | 16 Relay Panel, Astronomic Timeclock (SPC) (24"H x 20"W x 6"D) | CRC1301 | 48 |
| ☐ | 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-R24s | 24 Relay Panel, Astronomic Timeclock (SPC) (30"H x 24"W x 6"D) | CRC1301 | 40 |
| ☐ | 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-R32s | 32 Relay Panel, Astronomic Timeclock (SPC) (30"H x 24"W x 6"D) | CRC1301 | 32 |
| ☐ | 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-R48s | 48 Relay Panel, Astronomic Timeclock (SPC) (36"H x 24"W x 6"D) | CRC1301 | 16 |
| ☐ | 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 |