

## **Designed for Lighting**

The 2-Wire latching relay is the basis of all lighting control systems designed by NexLight. Relays used for lighting loads undergo some of the harshest loads and for that reason require the reliability and robustness that the NexLight relays are engineered to provide.

## **Relay Features**

### ***Latching Relays***

Once the relay is ON or OFF, it remains in that state, requiring no control power to stay in that state. The relay will not switch state if the control signal is disabled or disrupted for any reason.

Relay wiring becomes simpler as many relays, switches, and control devices can share the same common power source (i.e. transformer).

The same relay can easily be controlled from several devices including:

- o Wall switches
- o Time clocks
- o Sensors
- o BMS systems
- o 3rd party connected devices

### ***Manual Override Lever***

Each relay provides a manual switch lever integral to the device and serves dual purposes:

1. Allows the relays to be overridden at the panel which is useful during the installation phase when switches and controls may not be fully powered or installed.
2. Provides real time highly visible status of the relay.

### ***Mounting***

All relays are pre-assembled and pre-wired into NexLight panels. All panels are certified in a UL508A panel assembly facility. The relays may be installed in master, auxiliary, and remote mounted panels offering complete versatility in building design.

### ***Approval Bodies***

All relays are listed with Underwriters Laboratories (UL) and approved by Canadian Standards Association (CSA).

### ***Status***

All relays provide a status to the NexLight 2-Wire system for transmission to switch status indication LEDs and monitoring by host systems.



## CRC7000 20A HID Single Pole Relay

- UL:**
- 20 Amp 300 VAC General Use
  - 20 Amp 300 VAC Ballast
  - 16 Amp 300 VAC Electronic Ballast
  - 2400W 120 VAC Tungsten
  - 4800W 240 VAC Tungsten

- CSA:**
- 20 Amp 347 VAC General Use
  - 20 Amp 347 VAC Ballast
  - 16 Amp 347 VAC Electronic Ballast
  - 2400W 120 VAC Tungsten
  - 4800W 240 VAC Tungsten

- Motor Load Ratings:**
- ½ HP at 110-125 VAC
  - 1-1/2 HP at 220-277 VAC

- SCCR:**
- 14,000 A at 277 VAC

- Weight:**
- 0.374 lbs.

- Dimensions:**
- 3.78" L x 0.96" W x 2.36" H



## WR6161 30A General Use (20A HID) Single Pole Relay

- UL:**
- 30 Amp 300 VAC General Use
  - 20 Amp 300 VAC Standard Ballast
  - 16 Amp 277 VAC Electronic Ballast
  - 2400W 120 VAC Tungsten

- CSA:**
- 30 Amp 347 VAC General Use
  - 20 Amp 347 VAC Ballast
  - 2400W 120 VAC Tungsten

- Motor Load Ratings:**
- ½ HP at 110-125 VAC
  - 1-1/2 HP at 220-277 VAC

- SCCR:**
- 18,000 A at 277 VAC

- Weight:**
- 0.437 lbs.

- Dimensions:**
- 3.78" L x 0.96" W x 2.36" H



## WR61613 30A General Use (20A HID) Single Pole Relay w/ Aux Contacts

- UL:**
- 30 Amp 300 VAC General Use
  - 20 Amp 300 VAC Standard Ballast
  - 16 Amp 277 VAC Electronic Ballast
  - 2400W 120 VAC Tungsten

- CSA:**
- 30 Amp 347 VAC General Use
  - 20 Amp 347 VAC Ballast
  - 2400W 120 VAC Tungsten

- Motor Load Ratings:**
- ½ HP at 110-125 VAC
  - 1-1/2 HP at 220-277 VAC

- SCCR:**
- 18,000 A at 277 VAC

- Weight:**
- 0.437 lbs.

- Dimensions:**
- 3.78" L x 0.96" W x 2.36" H

- Auxiliary Contact Ratings:**
- 125 VAC, 1 Amp



## WR6166 20A HID Double Pole Relay

### UL:

- 20 Amp 300 VAC General Use
- 20 Amp 300 VAC Standard Ballast
- 2400W 120 VAC Tungsten

### CSA:

- 30 Amp 347 VAC General Use
- 20 Amp 347 VAC Ballast
- 2400W 120 VAC Tungsten

### Motor Load Ratings:

- ½ HP at 110-125 VAC
- 1-1/2 HP at 220-277 VAC

### SCCR:

- 14,000 A at 277 VAC

### Weight:

- 0.437 lbs.

### Dimensions:

- 3.78" L x 0.96" W x 2.36" H



## WR61663 20A HID Double Pole Relay w/ Aux Contacts

### UL:

- 20 Amp 300 VAC General Use
- 20 Amp 300 VAC Standard Ballast
- 2400W 120 VAC Tungsten

### CSA:

- 20 Amp 347 VAC General Use
- 20 Amp 347 VAC Ballast
- 2400W 120 VAC Tungsten

### Motor Load Ratings:

- ½ HP at 110-125 VAC
- 1-1/2 HP at 220-277 VAC

### SCCR:

- 14,000 A at 277 VAC

### Weight:

- 0.437 lbs.

### Dimensions:

- 3.78" L x 0.96" W x 2.36" H

### Auxiliary Contact Ratings:

- 125 VAC, 1 Amp



## WR6172 480V Double Pole Relay

### UL:

- 20 Amp 480 VAC General Use
- 20 Amp 480 VAC Standard Ballast
- 2400W 120 VAC Tungsten

### CSA:

- 20 Amp 347 VAC General Use
- 20 Amp 347 VAC Ballast
- 2400W 120 VAC Tungsten

### Motor Load Ratings:

- ½ HP at 110-125 VAC
- 1-1/2 HP at 220-277 VAC

### SCCR:

- 14,000 A at 277 VAC

### Weight:

- 0.437 lbs.

### Dimensions:

- 3.78" L x 1.96" W x 2.36" H



## WR6172 480V Double Pole Relay w/ Aux Contacts

**UL:**

- 20 Amp 480 VAC General Use
- 20 Amp 480 VAC Standard Ballast
- 2400W 120 VAC Tungsten

**CSA:**

- 20 Amp 347 VAC General Use
- 20 Amp 347 VAC Ballast
- 2400W 120 VAC Tungsten

**Motor Load Ratings:**

- ½ HP at 110-125 VAC
- 1-1/2 HP at 220-277 VAC

**SCCR:**

- 14,000 A at 277 VAC

**Weight:**

- 0.437 lbs.

**Dimensions:**

- 3.78" L x 1.96" W x 2.36" H

**Auxiliary Contact Ratings:**

- 125 VAC, 1 Amp



## CRC2150 10A (4) Hybrid Relay & Relay Controller

**UL: APPROVALS PENDING**

- 10 Amp 300 VAC General Use
- 10 Amp 300 VAC Standard Ballast
- 10 Amp 277 VAC Electronic Ballast
- 10 Amp 120 VAC Tungsten

**CSA: APPROVALS PENDING**

- 10 Amp 347 VAC General Use
- 10 Amp 347 VAC Ballast
- 10 Amp 120 VAC Tungsten

**Motor Load Ratings:**

- 1/4 HP at 110-125 VAC
- 1 HP at 220-277 VAC

**SCCR:**

- 18,000 A at 277 VAC

**Weight:**

- 0.437 lbs.

**Dimensions:**

- 3.78" L x 1.96" W x 2.36" H

## Relay Controllers:

The relay controller provides the interface from the 2-Wire communication bus to the signals that operate the relay. It also monitors the ON/OFF status of the relay and provides that information to the NexLight 2-Wire communications bus. Used to control the WR and CRC series of latching relays.



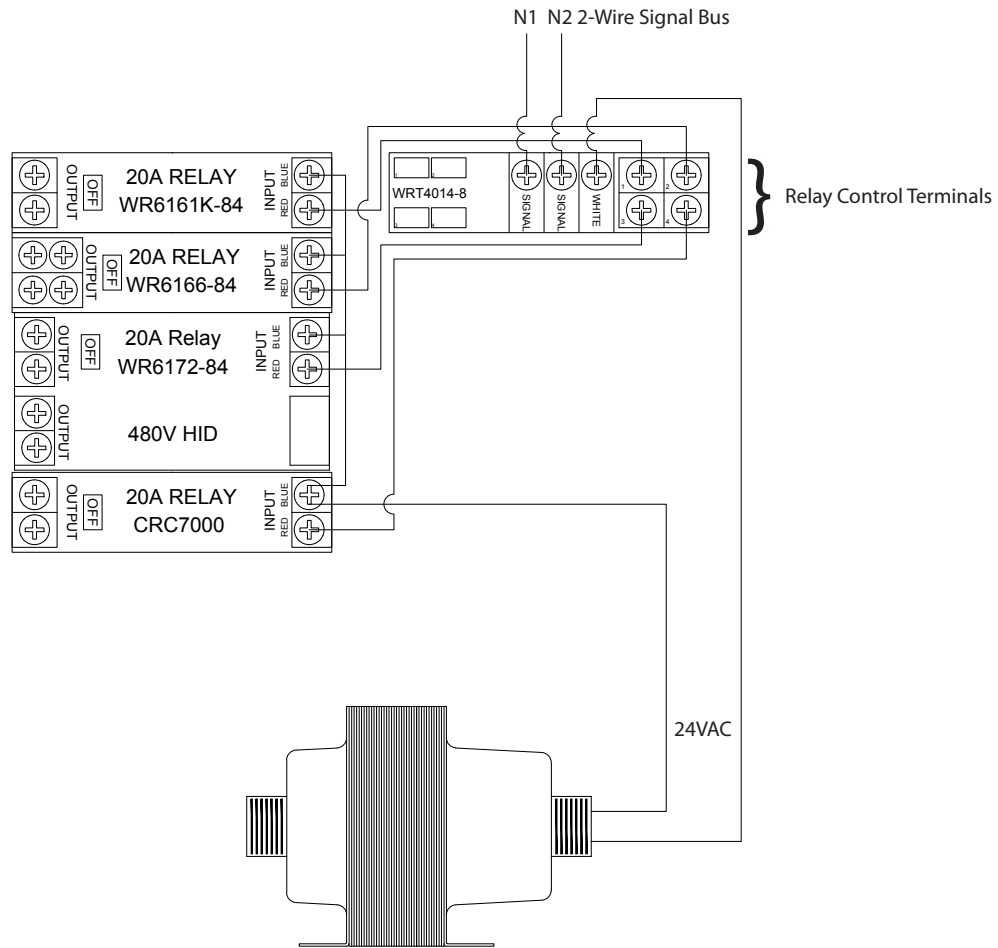
### WRT4014 Relay Controller (4) IR Address Setting

- Addresses are set via infrared (IR) port using handheld programmer unit.
- The prefix and suffix are both set using the handheld programmer.
- Address can be mixed (i.e. can put more than one prefix in controller and vary the suffix for each output lead).
- 2-Wire communication draw: 2.3 mA
- Weight: 0.187 lbs.
- Dimensions: 3-15/16" L x 1" W x 2.36" H



### CRC2000 Relay Controller (4) DIP Address Setting

- Addresses are set via dip switch.
- The prefix (0-63) is set by the dip switch bank on top of the controller and the suffix is the output lead number (-1, -2, -3, and -4)
- Address cannot be mixed (i.e. the prefix can only be one number and the suffix is always associated with the corresponding lead).
- 2-Wire communication draw: 2.5 mA
- Weight: 0.125 lbs.
- Dimensions: 2" L x 2" W x 1-5/8" H



**Wiring detail of typical WRT4014**

## BBR910 Relay Interface:

The BBR910 relay interface is an input device used to interface any of the WR or CRC series of latching relays that do not have a built in relay controller to any device that provides a dry contact closure. Examples of use include: Building Management Systems (BMS), Time Clocks, Occupancy Sensors, and Non-Intelligent Switches.

- Relay is ON when the dry contact is closed and OFF when the dry contact is open
- Does not require the 2-Wire communications bus
- Can control up to 4 relays at the same time
- If used in conjunction with the two wire bus the two wire bus will still see the changes
- Allows manual override with NexLight hardwire switches that indicate relay position
- Mounts on the WR9910 Mounting Strap



## BBR910 Relay Interface Specifications

### Electrical Inputs:

Transformer Voltage: 24 VAC

Current: 350 mA

Contact Inputs: 0 volts, 0 current

Weight: 0.187 lbs.

Dimensions: 3-15/16" L x 1" W x 2.36" H

