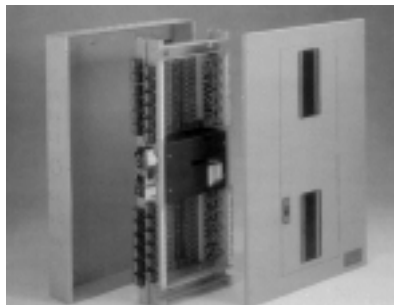
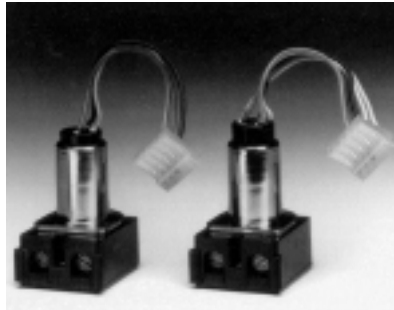


Relays

DESCRIPTION

GE RR SERIES RELAYS HAVE SERVED as the heart of low voltage lighting controls for over 40 years. The basic power switching device, the relay serves as the foundation of a building's lighting control solution. GE's Remote Control panels and frames are configured for either **RR7P** or **RR9P** relays with a five-pin female connector. The user can simply remove a knockout in the low voltage barrier, snap the relay into place, and plug it onto the interconnect board.



RR7P Operation

Each relay employs a split low-voltage (24V) coil to move the line voltage contact armature to the ON(OFF) latched position. As illustrated on the opposite page for the RR7P, the ON coil moves the armature to the left when a 24 volt control signal is impressed across its leads. The armature latches in the ON position and will remain there until the OFF coil is energized.

This operation provides several key control features:

- **Positive action.** The relay always goes to the state commanded. For example, multiple OFF commands will keep the contacts in the OFF position.
- **Stable operation.** Since the relay latches in the ON or OFF position, power outages do not result in a change of state.
- **Minimal power consumption.** Control power is only required when the relay changes state.
- **Ability to support multiple input devices.** After the relay responds to a momentary pulse, it is then "free" to accept another pulse from any other control devices wired to it. The relay position is always controlled by the last signal.

SPECIFICATIONS

UL Listed, CSA Certified
Mounts in standard 1/2" KO,
Operates in any position

Rated Capacity

Lamp Load
20 A Tungsten filament
125 VAC
20 A Ballast 277 VAC,
347 VAC Canadian
Resistive Load
20 A 277 VAC, 347
VAC Canadian
Motor Load
½ Hp @ 110-125 VAC
½ Hp @ 220 - 277 VAC

Operating Environment

Temperature
0° to 60°C (32 to 140°F)
Relative Humidity
10 to 95% RH, non-condensing
Atmosphere
Non-explosive, non-corrosive
Vibration
Stationary applications
NEMA Level A

Endurance

50,000 cycles, full load
100,000 cycles, no load

Line-Voltage Characteristics

Contacts
SPST maintained
(mechanical latching)
Terminals
2 Terminals
2 Back-wiring holes per terminal
Feedthrough wiring
Screw actuated clamps for use
with #14-10 AWG solid or
stranded copper wire only.

SPECIFICATIONS**Low-Voltage Characteristics**

Split Coil - 1/2 for “ON”, 1/2 for “OFF”

Compatible with standard interface/drivers, ULN-2003A Darlington transistor arrays

Operating Voltage - Nominal 24-29 VAC ($\pm 10\%$) Rectified Minimum at relay = 21 VAC rectified)

30-38 VDC ($\pm 10\%$) Filtered

Note: Do not use DC with pilot or locator switches

Duty Rating

Momentary

Minimum Activating Pulse

Time

50 Milliseconds

Coil Impedance

75-85 Ohms at 60 Hz

Unrectified

55-60 Ohms DC Resistance

Pilot Contact

I A 24-29 VAC Resistive

DESCRIPTION**RR9P Operation**

The RR9P includes an auxiliary contact on the low voltage side of the armature to provide status indication or pilot light switches or indicator lights for remote annunciation of lighting status. It is also used to provide status information to more highly automated Delta Lighting Controller LLC475.

ORDERING

To order the RR7P or RR9P Relays, specify the following product numbers:

Isolated pilot contact 5-wire relay with 5-pin connector: **475100**

RR7P Standard 3-wire relay with 5-pin connector: **475101**.

The RR7P and RR9P relays are designed for simple connection to Delta Lighting Controller LLC475.

Other relay wire terminations are available, including:

RR7 Standard 3-wire relay with stripped leads

RR8 Pilot contact 4-wire relay with stripped leads

RR9 Isolated pilot contact 5-wire relay with stripped leads

RR7EZ Standard 3-wire relay with spade terminals

RR8EZ Pilot contact 4-wire relay with spade terminals

RR9EZ Isolated pilot contact 5-wire relay with spade terminals

IMPORTANT CONSIDERATIONS AND RESTRICTIONS

Relays connected in parallel -Two or more relays connected in parallel, by grouping red leads and black leads, will operate together. The maximum number of relays connected in parallel is determined by the capacity of the power supply and the switch lead lengths.

Pilot contacts connected in parallel - If the yellow switch connections for a group of RR9P relays are paralleled, any relay ON in the group will turn the pilot lighted switch ON.

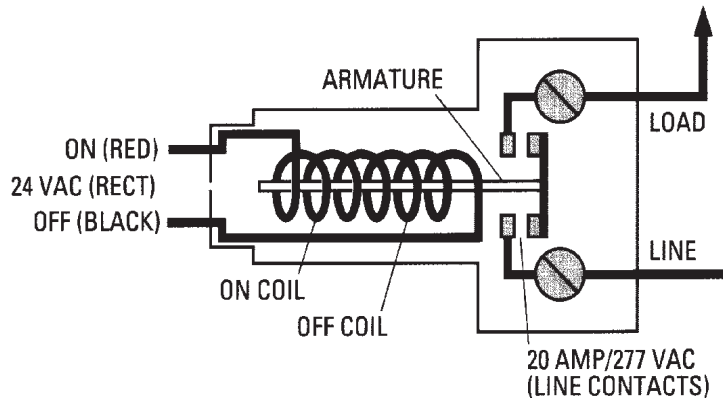
Caution:

Do NOT use these relays to switch DC loads. This will damage the power contacts.

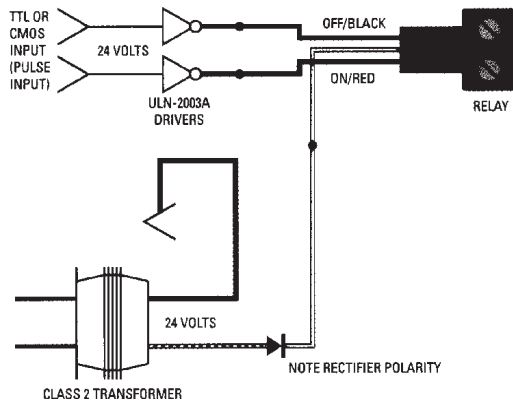
For proper pilot light operation, use only half-wave rectified AC voltage for relay control.

Relays

DIAGRAMS FOR 475100



TYPICAL ELECTRONIC DRIVER CIRCUIT ULN-2003A



RELAY DIMENSIONS

