



# LIGHTING CONTROLS

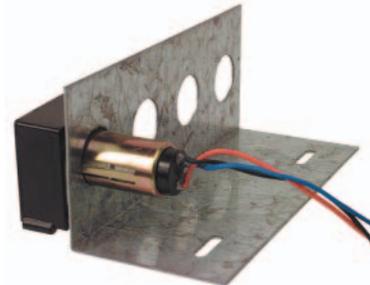
## GE LIGHTING RELAYS

### MODELS RR-7, RR-9

#### DESCRIPTION

GE **Model RR-7 and RR-9 Lighting Relays** are mechanical latching-type units requiring only momentary 24 VAC switch circuit pulses to open or close line voltage circuits. All GE low voltage relays may be used to full-rated capacity for tungsten filament, ballast, or resistive loads. The **Model RR-9** includes an auxiliary contact on the low voltage side for status indication.

**CAUTION:** The coil is designed to resist burnout if continuous voltage is applied, but coil life may be shortened with prolonged, continuous voltage.



Optional Bracket for RR-7/RR-9



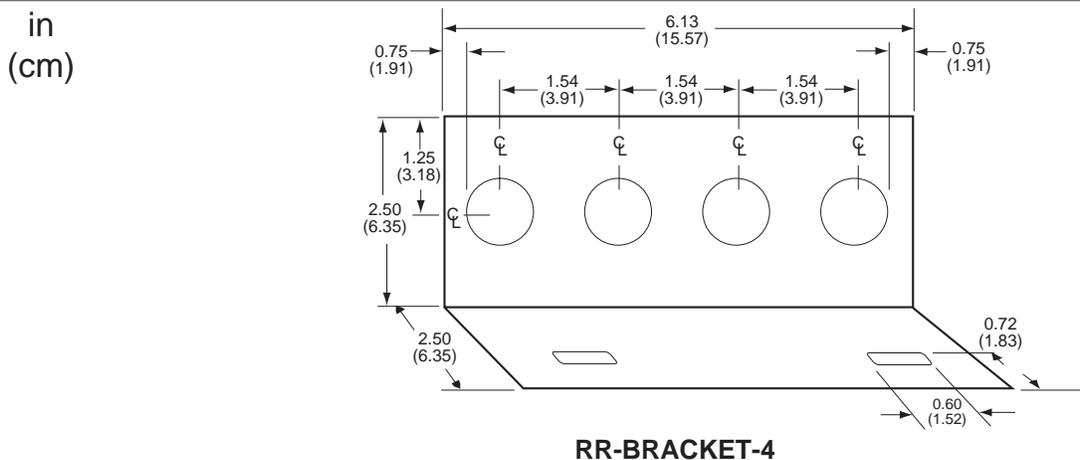
RR-7



#### SPECIFICATIONS

<b>General information</b>	UL listed, CSA certified; mounts in standard 1/2" K.O. - 0.865" to 0.875" (nominal 22 mm) dia - in 14- or 16-gauge material; operates in any position	<b>Terminals</b>	Two terminals, two back wiring holes per terminal for use with #14-10 AWG solid or stranded wire (copper wire only)
<b>Operating voltage</b>	24-29 VAC ( $\pm 10\%$ ) half or full wave rectified or pure, 30-38 VDC ( $\pm 10\%$ ) filtered	<b>Lamp load</b>	20A tungsten filament 125 VAC 20A ballast 277 VAC
<b>Min activating pulse</b>	50 ms	<b>Resistive load</b>	30A 277 VAC
<b>Coil impedance</b>	75-85 $\Omega$ @60 Hz unrectified 55-60 $\Omega$ DC resistance	<b>Motor load</b>	1/2 hp @ 110-125 VAC 1/2 hp @ 220-277 VAC
<b>Coil inrush current</b>	325 mA @ 24 VAC	<b>Pilot contact</b>	1A, 24 VAC isolated ( <b>RR-9</b> only)
<b>Contacts</b>	SPST maintained (mechanical latching)	<b>Temp</b>	32° to 140°F (0° to 60°C)
<b>Weight</b>		<b>Relative humidity</b>	10% to 95% RH noncondensing
<b>RR-7, RR-9</b>	0.3 lb (0.12 kg)	<b>Dimensions</b>	1.375"W x 1.6875"L x 2.375"H (3.5 x 4.29 x 6.03 cm)
<b>RR-BRACKET-4</b>	0.5 lb (0.21 kg)	<b>Endurance</b>	50,000 cycles, full load 100,000 cycles, no load
		<b>Lead length</b>	6" (15 cm)

#### DIMENSIONS



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#### OPERATION

The relay employs a split low-voltage coil to move the line voltage contact armature to the on or off latched position. The on coil moves the armature to the on position when a 24 VAC control signal is impressed across its leads. This is analogous to a magnet attracting the handle of a standard single-pole switch to the on position when energized. The armature (handle) latches in the on position and will remain there until the off coil is energized, drawing the armature into the off position.

This control operation provides several key control features:

#### **Positive action**

The relay always goes to the state commanded. For example, multiple off commands will simply 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.

#### **Additive control functions**

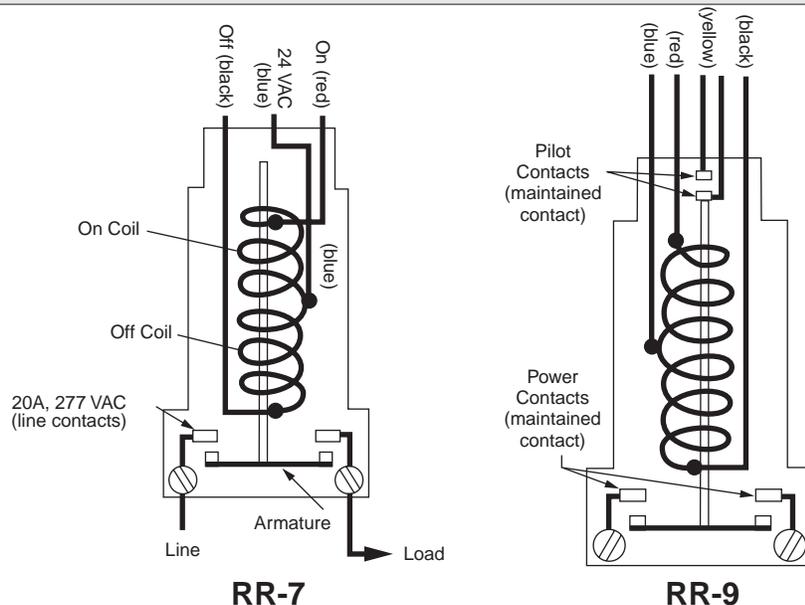
Pulse control signals coupled with latching allow any number of switches or electronic control devices to operate the same relay. The relay position is always dictated by the last signal.

#### WIRING

##### Internal Wiring

##### Important Considerations and Restrictions

1. Relays connected in parallel - Two or more relays connected in parallel will operate together.
2. Do not use these relays to switch DC loads. Doing so will damage the power contacts.
3. For longer life, use half-wave rectified AC voltage for relay control.



#### ORDERING INFORMATION

<b>MODEL</b>	<b>DESCRIPTION</b>
RR-7	Three-wire Low Voltage Leads
RR-9	Five-wire Low Voltage Leads with Isolated Pilot Auxiliary Contact
RR-7-B	RR-7 with Banana Plug Connectors
RR-BRACKET-4	Mounting Bracket for RR-7 or RR-9 relays