

ALTERNATING RELAYS

SPDT & DPDT



- u For duplex loads
- u Can be used with one or two Control Switches
- u Control voltages of 12, 24, 120 & 240V AC
- u Compact plug-in design utilizing industry-standard 8 or 11 pin octal socket
- u 10A SPDT or DPDT Output Configuration
- u Optional low profile selector switch to lock in one sequence
- u 2 LED's indicate relay status



Alternating Relays are used in special applications where the optimization of load usage is required by equalizing the run time of two loads. This alternating action is initiated by a control switch, such as a float switch, manual switch, timing relay, pressure switch, or other isolated contact. Each time the initiating switch is opened, the output relay contacts will change state, thus alternating the two loads. Two LED indicators show the status of the output relay.

The Alternating Relays listed on this page can be used with one or two control switches & are available in either SPDT or DPDT output configurations (see "Typical Installations" on Page 53 for more information). For products with DPDT Cross-Wired output configurations to be used with one, two or three control switches, see Page 54.

Each version is available with an optional three position selector switch. This allows the unit to alternate the two loads as normal, or lock the relay to one load or the other. By locking the Alternating Relay to one load, the other load can be removed for service without rewiring the first load for continuous operation. The selector switch has a low profile to prevent any accidental changes in status.

OUTPUT CONTACTS	CONTROL VOLTAGE	PRODUCT NUMBER	WIRING/SOCKET ⁿ
SPDT w/o Selector Switch	12V AC 24V AC 120V AC 240V AC	ARP012A6 ARP024A6 ARP120A6 ARP240A6	<p>DIAGRAM 17</p> <p>LOAD A: PIN 2 LOAD B: PIN 8</p>
SPDT w/ Selector Switch	12V AC 24V AC 120V AC 240V AC	ARP012A6R ARP024A6R ARP120A6R ARP240A6R	
DPDT w/o Selector Switch	12V AC 24V AC 120V AC 240V AC	ARP012A2 ARP024A2 ARP120A2 ARP240A2	<p>DIAGRAM 18</p> <p>LOAD A: PINS 3 OR 11 LOAD B: PINS 1 OR 9</p>
DPDT w/ Selector Switch	12V AC 24V AC 120V AC 240V AC	ARP012A2R ARP024A2R ARP120A2R ARP240A2R	



ⁿ See Page 58 for **Sockets & Accessories.**

ALTERNATING RELAYS

SPDT & DPDT

Application Data & Dimensions

Application Data

Voltage Tolerances: +10%/-15% of control voltage at 50/60Hz.

Load (Burden): Less than 3VA

Output Contacts:

10A Resistive @ 240V AC/30V DC,
1/2HP @ 120/240V AC (N.O.), 1/3HP @ 120/240VAC (N.C.)

Life:

Mechanical: 10,000,000 operations
Full Load: 100,000 operations

Temperature: -28° to 65°C (-20° to 150°F)

Transient Protection: 10,000 volts for 20 microseconds

Indicator LED's: 2 LED's marked LOAD A and LOAD B

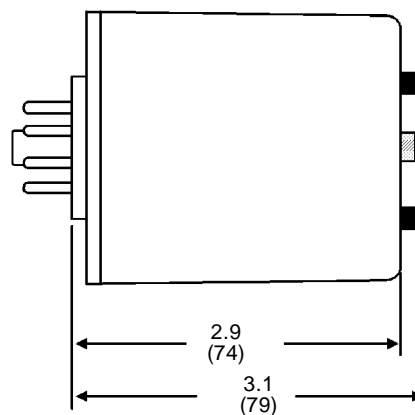
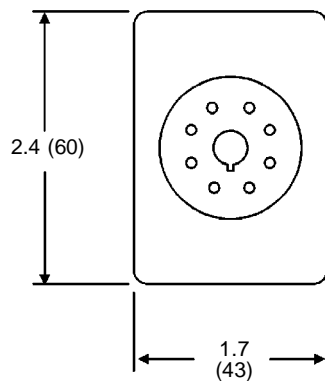
Optional Selector Switch Settings:

ALTERNATE
LOCK LOAD A
LOCK LOAD B

Approvals:



Dimensions



All Dimensions in Inches (Millimeters)

Typical Installations

In the off state (Figure A), the Control Switch is open, the Alternating Relay is in the LOAD A position, and both loads (M1 & M2) are off. When the Control Switch closes, it energizes the first load (M1). The red LED marked "LOAD A" glows. As long as the Control Switch remains closed, M1 remains energized. When the Control Switch opens, the first load (M1) is turned off and the Alternating Relay toggles to the LOAD B position. When the Control Switch closes again, it energizes the second load (M2). The red LED marked "LOAD B" glows. When the Control Switch opens, the second load (M2) is turned off, the Alternating Relay toggles back to the LOAD A position, and the process can be repeated again. On relays with DPDT contacts, two pilot lights can be used for remote indication of LOAD A or LOAD B status.

To eliminate any bounce condition of the Control Switch, the addition of a second switch (OFF) along with two auxiliary contacts is recommended as shown in Figure B.

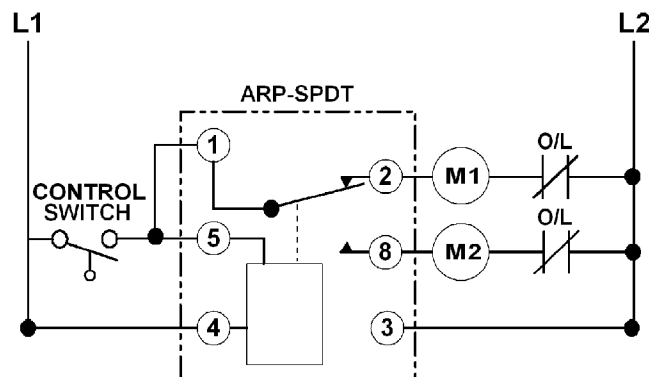


Figure A

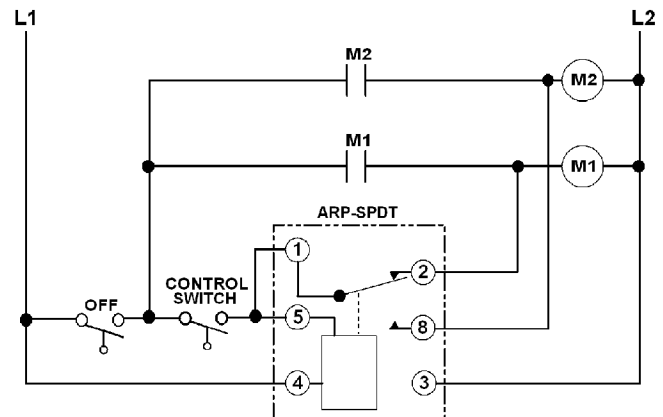


Figure B