Alternating Relay
ARP Series
Motor Duplexor

- Provides Shared Run Time for Two Motors
- Alternating or Electrically Locked Operation
- Low Profile Selection Switch
- 10 A Relay Contacts
- LED Status Indication
- Industry Standard Base Connection

Description

The ARP Series is used in systems where shared running time for two motors is desirable. The selector switch allows selection of alternation or either load for continuous operation. LED's indicate the status of the output relay. This versatile series may be front panel mounted (BZ1 accessory required) or 35 mm DIN rail mounted with an accessory socket.

Operation

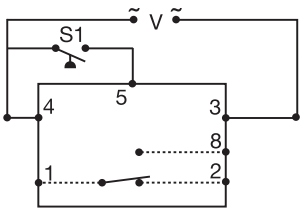
Alternating: When the rotary switch is in the "alternate" position, alternating operation of Load A and Load B occurs upon the opening of the primary control switch. To terminate alternating operation and cause only the selected load to operate, rotate the switch to position "A" to lock Load A or position "B" to lock Load B.

Duplexing (Cross Wired): Duplexing models operate the same as the above alternating relays. When both the Primary Control S1 and Lag Load S2 Switches are closed, Load A and Load B energize simultaneously.

■ Approvals:

Input Voltage	Output Form	Part Number
120 V AC	SPDT, 8 Pin	ARP41S
120 V AC	DPDT, 8 Pin Cross Wired	ARP43S

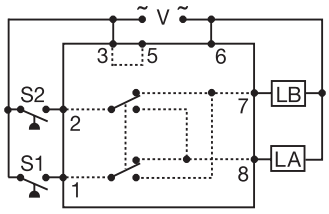
Other Combinations are Available, 24 V AC, 230 V AC, 11 pin DPDT



ARP41S

SPDT
8 Pin

Relay contacts in the above diagram are isolated.



ARP43S

DPDT
Cross
Wired

Dashed lines are internal connections.

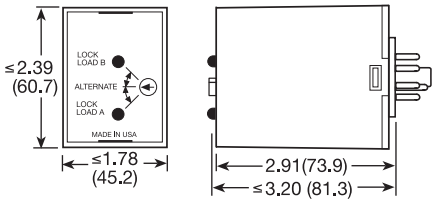
V = Voltage S1 = Primary Control Switch
S2 = Lag Load Switch LA = Load A LB = Load B

The DPDT 8-pin, cross wired option, allows extra system load capacity through simultaneous operation of both motors when needed. Relay contacts are not isolated.

Note: Input voltage must be applied at all times for proper alternation. The use of a solid state control switch for S1 may not initiate alternation correctly. S1 voltage must be from the same supply as the unit's input voltage (see connection diagrams). Loss of input voltage resets the unit; Load A becomes the lead load for the next operation.

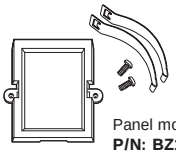
Technical Data

Input		
Voltage		120 V AC
Tolerance	120 & 230 V AC	-20% ... +10%
Line Frequency		50 ... 60 Hz
Output		
Type		Electromechanical relay
Form		SPDT, or DPDT, or cross wired DPDT
Rating		10 A resistive at 240 V AC 7 A inductive at 120 V AC
Maximum Voltage		250 V AC
Life		Mechanical -- 1 x 10^7 Full Load -- 1 x 10^6
Protection		
Isolation Voltage		≥ 1500 V RMS input to output
Mechanical		
Mounting		Plug-in socket
Package		3.2 x 2.39 x 1.78 in. (81.3 x 60.7 x 45.2 mm)
Termination		8 pin octal or 11 pin magnal
Environmental		
Operating Temperature		-20°C ... +60°C
Storage Temperature		-30°C ... +85°C
Weight		≅ 5.6 oz (159 g)

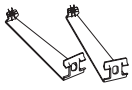


Inches (Millimeters)

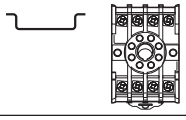
Accessories



Panel mount kit
P/N: BZ1



Hold down clips
P/Ns: PSC8 (NDS-8)



Octal
8-pin socket
P/N: NDS-8

DIN rail
P/Ns: C103PM (Al)
017322005 (Steel)

See accessory pages for specifications.