

# Alternating Relay

## ARP Series

### Motor Duplexor



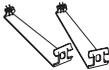
- Provides Equal Run Time for Two Motors
- Alternating or Electrically Locked Operation
- Low Profile Selection Switch
- 10 A Relay Contacts
- LED Status Indication
- Industry Standard Base Connection

Approvals:

#### Accessories



Panel mount kit  
P/N: **BZ1**



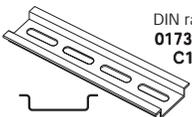
Hold down clips  
P/Ns: **PSC8** (NDS-8)  
**PSC11** (NDS-11)



11 pin socket  
P/N: **NDS-11**



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



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

See accessory pages for specifications.

#### Description

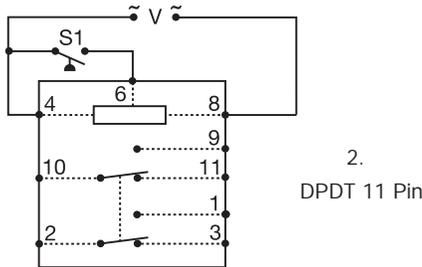
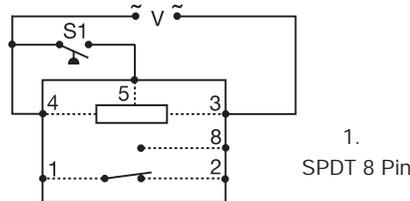
The ARP Series is used in systems where equal run time for two motors is desirable. The selector switch allows selection of alternation or either load for continuous operation. LED's indicate the status of the output relay. This versatile series may be front panel mounted (BZ1 accessory required) or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

#### Operation

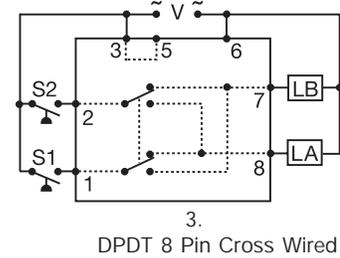
**Alternating:** When the rotary switch is in the "alternate" position, alternating operation of Load A and Load B occurs upon the opening of the control switch S1. To terminate alternating operation and cause only the selected load to operate, rotate the switch to position "A" to lock Load A or position "B" to lock Load B. The LEDs indicate the status of the internal relay and which load is selected to operate.

**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.

#### Connection



Relay contacts in above are isolated.



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

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.

Dashed lines are internal connections.

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

#### Ordering Table

ARP Series	X Input	X Output Form	X Switch Option
	-2 - 24 V AC	-1 - SPDT, 8 Pin	S - Rotary Switch
	-4 - 120 V AC	-2 - DPDT, 11 Pin	Blank - No Switch
	-6 - 230 V AC	-3 - DPDT, 8 Pin Cross Wired	

Example P/N: **ARP41S, ARP63**

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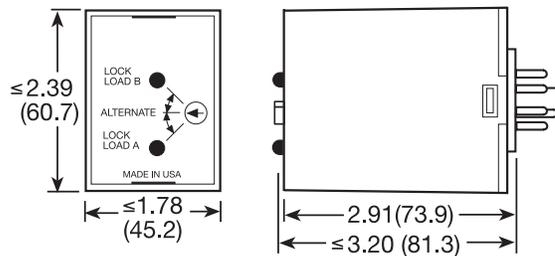
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#### Technical Data

<b>Input</b>		
Voltage		24, 120, or 230 V AC
Tolerance	24 V AC	-15% ... +20%
	120 & 230 V AC	-20% ... +10%
Line Frequency		50 ... 60 Hz
<b>Output</b>		
Type		Electromechanical relay
Form		SPDT, or DPDT, or cross wired DPDT
Rating		10 A resistive at 120/240 V AC & 28 V DC; 1/3 hp at 120/240 V AC
Maximum Voltage		250 V AC
Life		Mechanical -- $1 \times 10^7$ Electrical -- $1 \times 10^6$
<b>Protection</b>		
Isolation Voltage		$\geq 1500$ V RMS input to output
<b>Mechanical</b>		
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
<b>Environmental</b>		
Operating Temperature		-20°C ... +60°C
Storage Temperature		-30°C ... +85°C
Weight		$\cong 5.6$ oz (159 g)

#### Mechanical View



Inches (Millimeters)