

## RP418A-C, RP818A, B Electric-Pneumatic Relays

### SPECIFICATION DATA

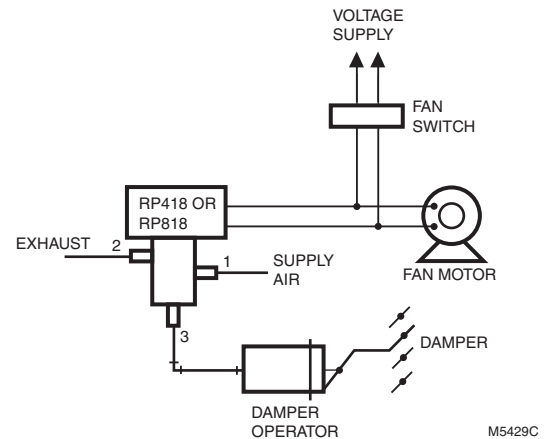
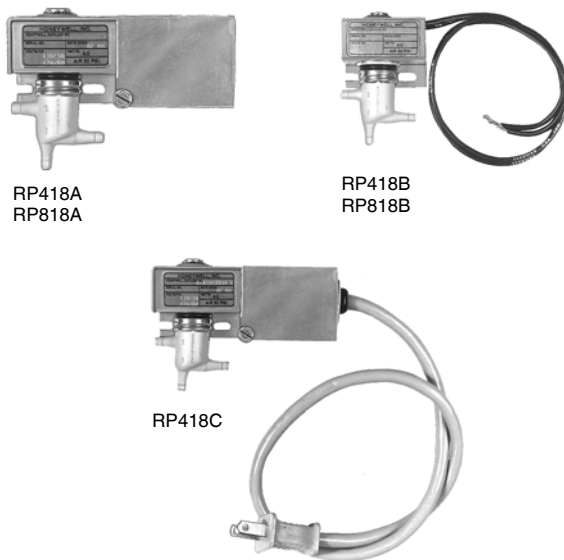


Fig. 1. Typical Hookup of the RP418 or RP818 Relays.

### GENERAL

The RP418 and RP818 Electric-Pneumatic Relays are electrically operated pneumatic switches.

These relays are manufactured by the Skinner Division of Honeywell and are designed for either wall or panel mounting. They can be mounted in any position without affecting the operation of the device. These relays are a direct replacement for the RP417 and RP817 electric-Pneumatic Relays.

### APPLICATION

the RP418 and RP818 Relays are used for interlock between an electrical and a pneumatic control system. They can also be used as stop and bleed relays or as diverting or selector relays. They function as three-way normally open or normally closed air valves, or a three-way diverting control, depending upon the piping hookup. If applied as shown in Fig. 1, when the fan is turned on, the coil is energized, passing supply air through Ports 1 and 3 to the damper operator. With the fan off, the supply Port 1 is blocked. Ports 2 and 3 are connected, bleeding the air from the damper operator to atmosphere.

### SPECIFICATIONS

Models:

Refer to Table 1 for model feature variations.

Table 1. RP418, RP818 Model Variation.

Model Number	Voltage		Mounting			Splice Box	Open Coil	Cord & Plug
	Line	Low	Wall	Panel	Device			
RP418A	X		X		X	X		
RP418B	X			X			X	
RP418C	X		X		X	X		X
RP818A		X	X		X	X		
RP818B		X		X			X	

#### Air capacity:

At 20 lb/in<sup>2</sup> (138 kPa) supply with 1 lb/in<sup>2</sup> (7 kPa) drop: 0.42 standard ft<sup>3</sup>/min (0.20 l/s)

#### Pressure Rating:

At 50 lb/in<sup>2</sup> (345 kPa) Maximum

#### Ambient Temperature Rating:

0 to 100°F (-18 to 38°C)



**NOTE:** For rating up to 120°F (49°C) refer to Installation Instructions 95-6046.

**Power Consumption:**  
4.0 Watts, nominal

**Available Voltage/Frequency:**  
See Table 2.

## OPERATION

When the coil is deenergized, Ports 2 and 3 are connected and Port 1 is blocked. When the coil is energized, Ports 1 and 3 are connected and Port 2 is blocked.

Refer to Table 1 for model feature variations.

**Table 2. RP418, RP818 Model Variation.**

Model	Complete O.S. No.	Voltage/Frequency
RP418A	1107	110/120/50/60
	1057	120/50
	1099	220/240/50/60
	1040	240/50
	1081	208/60
	1115	575/50
	1073	277/60
	1024	277/50
	1065	440/480/50/60
	1032	480/50
	1016	100/50
1008	200/208/50	
RP418B	1071	110/120/50/60
	1030	120/50
	1063	220/240/50/60
	1022	240/50
	1055	208/60
	1014	208/50
	1048	440/480/50/60
	1006	480/50
1089	575/60	
RP418C	1004	110/120/50/60
RP818A	1012	24/50
	1004	24/60
RP818B	1010	24/50
	1002	24/60

## MAINTENANCE

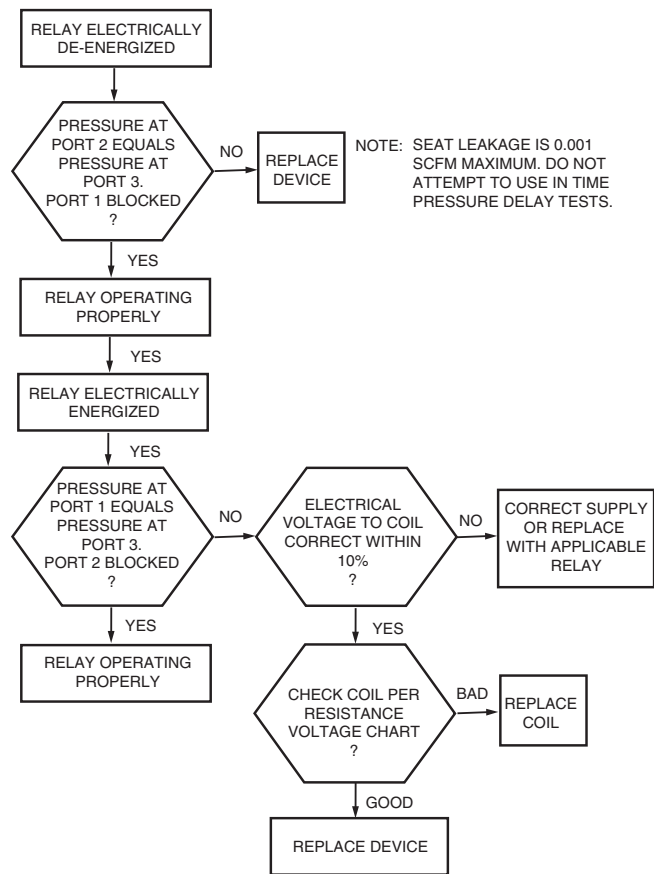
### General

Once the RP418 or RP818 is installed, no maintenance is necessary. All movable working parts are internal to the device and should never need to be cleaned. This relay does not require lubrication.

### Operation Check

Energize the electrical circuit to the relay. Determine whether the switch operates by analyzing airflow to the system parameters.

## TROUBLESHOOTING



C7814A

**Fig. 2. Troubleshooting Flow Chart.**

## REPAIR

Coil replacement, the only field repair recommended for the RP418 and RP818 Relays, is described in the following procedures.



### WARNING

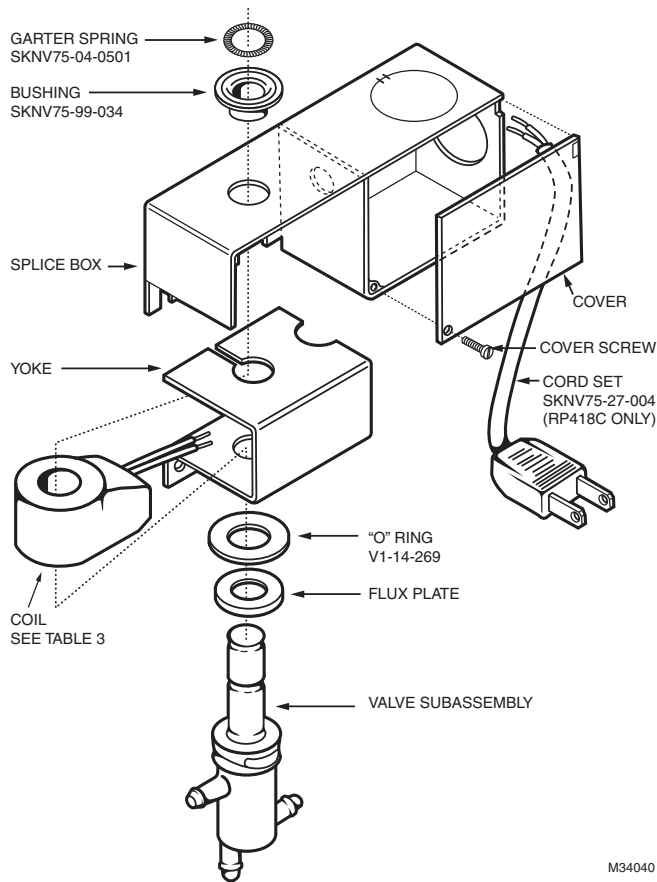
To protect the eyes and face, and prevent loss of the garter spring while removing it, shield top of relay.



### CAUTION

Before attempting any repair, be sure to disconnect electrical power and shut off the air supply to the relay.

1. Using a small screwdriver, pry loose the garter spring positioned at the top of the relay (Fig. 3).
2. Slide the valve body free from the rest of the relay.
3. On RP418C models, disconnect cord and plug.
4. Pull the coil electrical leads (splice box models) through the grommet in the box.
5. Remove the defective coil and replace the new coil in reverse order, aligning the holes so the valve body can slide into place.
6. Reconnect wires of cord and plug (RP418C), by stripping leads and either crimping or using a wire nut.
7. After the new coil has been aligned and assembled to the valve body, reinstall the garter spring over the bushing. Power and air supply can be restored to the relay. Check operation.



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Fig. 3. Exploded View.

## PARTS AND ACCESSORIES

### Parts List

Refer to Fig. 3 and Table 3.

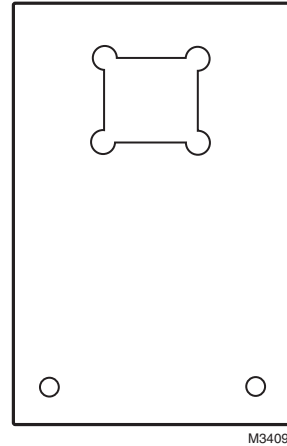
Table 3. Replacement Coils.

Part No. <sup>1</sup>	Voltage/Frequency
SKNC75-1904	120/60, 110/50
C75-1905	120/50
SKNC75-1908	240/60, 220/50
C75-1909	240/50
SKNC75-1906	208/60
C75-1907	208/50, 200/50
SKNC75-1910	277/60
C75-1911	277/50
SKNC75-1912	480/60, 440/50
C75-1913	580/50
C75-1903	100/50
C75-1902	25/50
SKNC75-1901	24/60
C75-1914	575/60

<sup>1</sup>All 50Hz coils without an SKN prefix must be ordered from Skinner Valve Division, 95 Edgewood Ave., New Britain CT 06051.

## ACCESSORIES

Optional Mounting Kit 14003638-001 contains 14003637-001 Mounting Bracket shown in Fig. 4. The RP418 and RP818 Relays can be mounted directly to MP516A Operators, VP519C Valves, or PP901B and PP902B Pressure Regulators using this kit.



**Fig. 4. Mounting Bracket 14003637-001 (contained in Mounting Kit 14003638-001).**

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