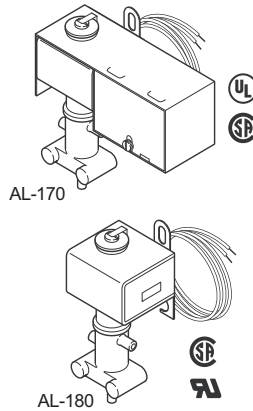


APPLICATION

For applications where an electrical circuit is used to control a pneumatically-operated device. Used to direct supply air to a pneumatic device when the coil is energized or de-energized, depending on the supply and exhaust air connects.



FEATURES

- Open frame or junction box construction accommodates a wide variety of NEMA 1 mounting locations.
- Available in 24, 120, 240, Vac models.
- Supplied with 18" electrical leads for ease of installation.
- Corrosion-resistant plastic body.
- Barbed fittings for 1/4" O.D. plastic tubing.

SPECIFICATIONS

Power Input: 5.7 Watts (energized).

Voltage: For available voltages, see Table-1.

Electrical Connections: 18" (457 mm) leads on the coil.

Maximum Inlet Air Pressure: 30 psig (207 kPa). Clean, dry, oil free air is required (reference EN-123).

Air Connections: Three plastic ferrules included for plastic 1/4" tubing (PKG-1141).

N.C.: Normally closed, port 1.

N.O.: Normally open, port 2.

COM: Common, port 3.

Flow Capacity: 0.3 scfm (142 ml/s) at 15 psig (103 kPa) supply with 1 psig (6.9 kPa) drop.

Ambient Temperature Limits:

Shipping, -40 to 150°F (-40 to 65°C).

Operating, 40 to 130°F (4 to 54°C).

Supply Air, 40 to 130°F (4 to 54°C).

Humidity: 5 to 95% RH, non-condensing.

Location: NEMA Type 1.

Mounting: Vertical with solenoid at top (as shown).

Table-1

Solenoid		Voltage (AC 60 Hz)	TAC Replacement Part Numbers
Open Frame	J-Box		
AL-170	AL-180	24	PNR-325-24
AL-171	AL-181	120	PNR-325-120

TYPICAL APPLICATIONS

When power is supplied to the exhaust fan, the fan runs, and the solenoid air valve is energized, closing port 2 and passing main air from port 1 through port 3 to damper actuator, which opens the normally-closed exhaust damper.

When power is removed from the fan, the fan stops, and the solenoid air valve is de-energized, closing port 1 and bleeding air from the damper actuator through port 3 and out port 2 to atmosphere, closing the exhaust damper.

Figure 1 illustrates a typical application diagram for the AL-170 solenoid air valve.

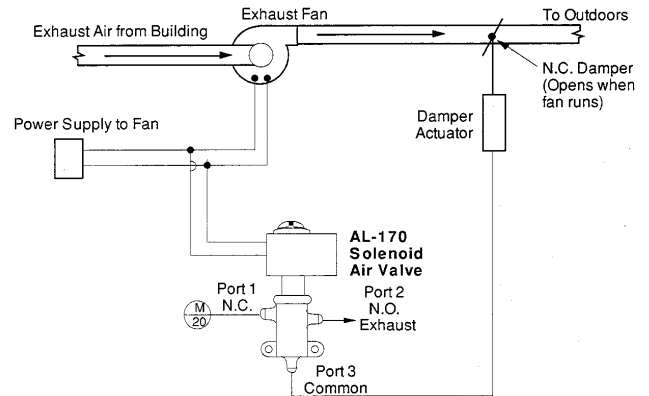


Figure-1 Typical Application Diagram.

INSTALLATION

Inspect the carton for damage. If damaged, notify the appropriate carrier immediately. Inspect the device for obvious damage. Return damaged products.

Requirements

- Job wiring diagrams
- Tools (not provided)
- Training - Installer must be a qualified experienced technician.



Warning: Disconnect the power supply (line power) before installation to prevent electrical shock and equipment damage.

Caution: Make all connections in accordance with the wiring diagram and in accordance with national and local electrical codes. *Use copper conductors only.*

Do not exceed ratings of the devices.

Avoid locations where excessive moisture, corrosive fumes, or vibration is present.

Mounting

Warning: This method requires the use of the enclosure on the coil. An integral mounting plate is provided.

1. Fasten to wall or duct with two #8 sheet metal screws or equivalent.
2. Rotate the solenoid enclosure to position the wiring compartment, if necessary.

Warning: Do not over-tighten as this may cause distortion of plunger tube or damage coil.

CHECKOUT - Go, No Go Test

1. Connect solenoid ports to plastic tubing.
2. Apply air to port 3. Ports 3 and 2 should be connected.
3. Apply power to the solenoid. Ports 3 and 1 should be connected.
4. If ports 3 and 1 are not connected, check to see if the proper voltage is applied.
5. Replace the solenoid with a functional unit if solenoid is powered and ports 3 and 1 are not connected.

MAINTENANCE

Regular maintenance of the total system is recommended to assure sustained optimum performance.

FIELD REPAIR

None. Replace with a functional solenoid.

DIMENSIONAL DATA

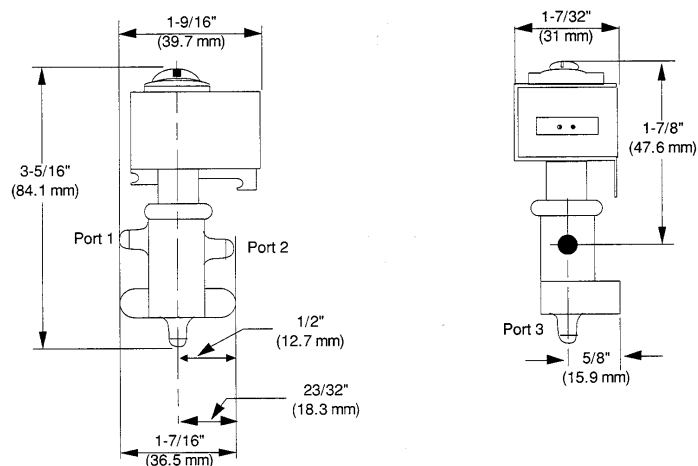


Figure-2 AL-170 Dimensional Drawing.

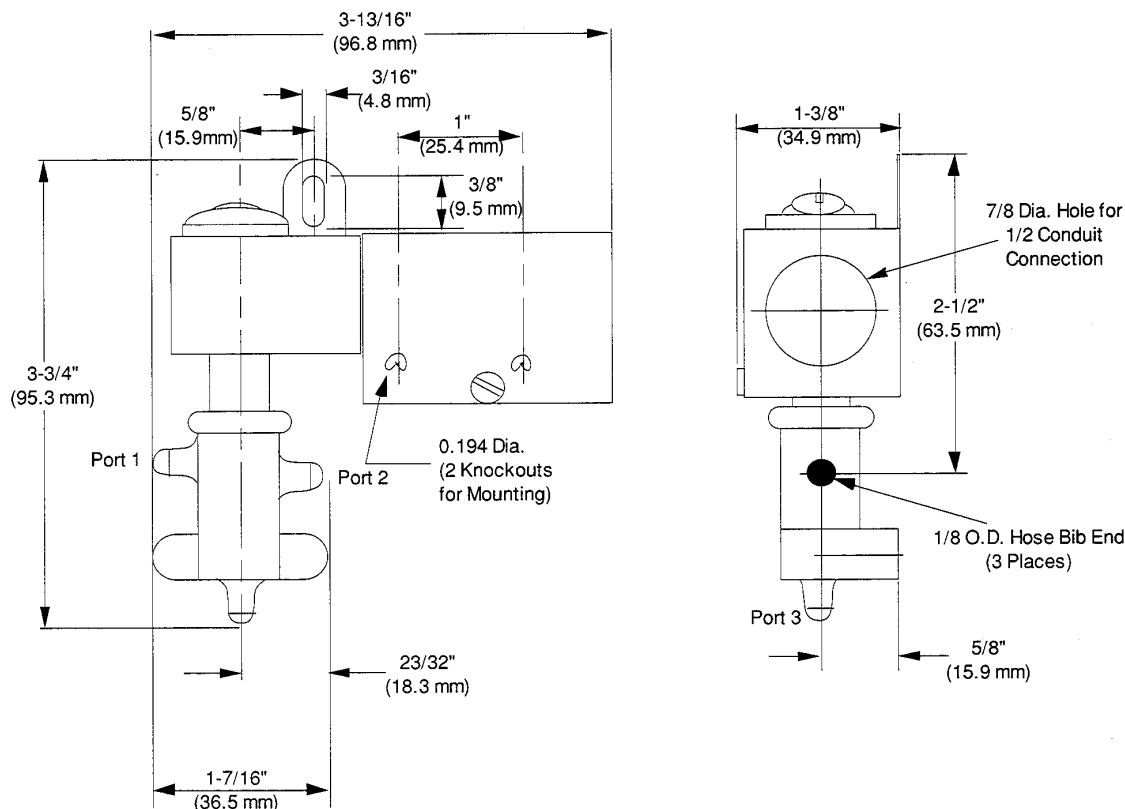


Figure-3 AL-180 Dimensional Drawing.

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