

Kidde ECS and ADS Fire Suppression Systems Component Description



Effective: October 2014

K-85-118

Pneumatic Solenoid - Standard on all Directional Valves

FEATURES

- Pressure Range of 20 PSIG to 120 PSIG (1.38 bar to 8.27 bar)
- NEMA 4 Rated
- 24 Vdc
- Factory Set Outlet Pressure of 116 PSIG (8 bar)
- For Use With All Sizes of Pneumatic 3-Way Directional Valves
- UL Listed, File Number 4674
- FM Approved

DESCRIPTION

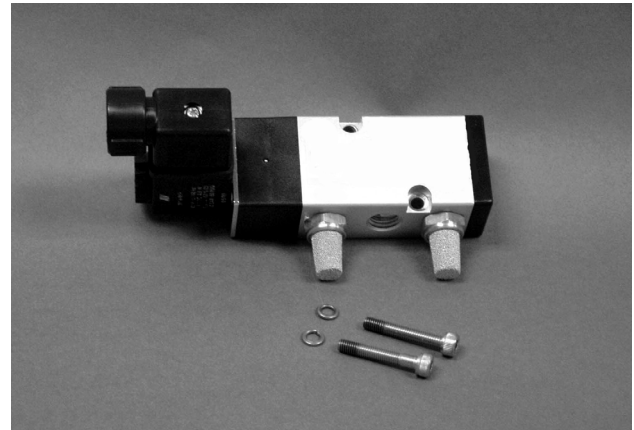
The Kidde ECS and ADS Fire Suppression System pneumatic solenoid is mounted to the actuator assembly to operate the 3-way directional valve. A solenoid is required for use with each pneumatic actuator assembly. The solenoid is provided from the factory in the closed position. Once the signal is sent from the panel to open the solenoid, the nitrogen pressure is allowed to pass through to the actuator, thereby allowing the ball valve to open.

MANUAL OVERRIDE OPERATION

In the event a signal is not able to open the solenoid, a manual override option has been provided. The solenoid will only work with pressure, therefore nitrogen pressure must be in the line or the nitrogen pilot will need to be manually discharged from the control head. Once pressure has been provided and there is a minimum pressure of 100 PSIG (6.89 bar), take a regular screwdriver and depress the red override button while turning the button 90 degrees clockwise to lock the ball valve in the open position. To return the ball valve to the original position, turn the red button 90 degrees counterclockwise.

INSTALLATION

A pneumatic solenoid must be installed to the pneumatic actuator mounted in order for the 3-way ball valve to operate properly. In addition, a pressure relief (P/N 06-118334-001) must be installed downstream of the pneumatic solenoid. The solenoid could be damaged if the manufacturer's maximum pressure recommendation of 150 PSIG (10.34 bar) is exceeded.



1. Connect the nitrogen pressure line into the middle 1/4-inch pressure port (P). (See Figure 1).
2. The pneumatic solenoid is designed with two exhaust mufflers. Apply tape dope to the male 1/4-inch connections of the mufflers and attach them into ports E1 and E2.
3. Mount the pneumatic solenoid with the cylinder ports facing down onto the actuator. Using the hex screw provided, attach and tighten to the pneumatic actuator with red manual override button facing upward allowing the manual override button to be accessed.
4. The coil can be oriented in any position to fit your situation. Loosen the hex fitting to turn the coil. Tighten the fitting when the desired location is determined.
5. Connect wiring from coil to the panel.

MAINTENANCE

MONTHLY:

Inspect fittings and assembly for cracks, corrosion, grime, etc. Clean as needed. Ensure that the fittings are tight and that the pneumatic solenoid safely secured to the pneumatic actuator. If any defects are found during the monthly inspection, immediately contact a Kidde Distributor to service the systems.

ORDERING INFORMATION (for spares only)

| Part Number | Description |
|---------------|--------------------|
| 06-118329-001 | Pneumatic Solenoid |

SPECIFICATIONS

| Description | Measurement |
|------------------------|-----------------------------------|
| Pressure Range | 20 to 120 PSIG (1.38 to 8.27 bar) |
| Voltage Rating | 24 Vdc |
| Power Consumption (DC) | 3W |
| Power Consumption (AC) | 4.5A |
| Duty Cycle | 100% continuous |
| Rating | NEMA 4 |
| Coil | 9AAG |
| Weight | 0.72 lb |
| Ports | 1/4" NPT |
| Includes: | Locking Manual Override Button |

COMPATIBILITY

| Series | For Use With |
|--|--------------|
| Kidde ECS Advanced Delivery with FM-200 [®] Agent | X |
| Kidde ECS Advanced Delivery with 3M [™] Novec [™] 1230 Fire Protection Fluid | X |
| Kidde ECS with 3M [™] Novec [™] 1230 Fire Protection Fluid | X |

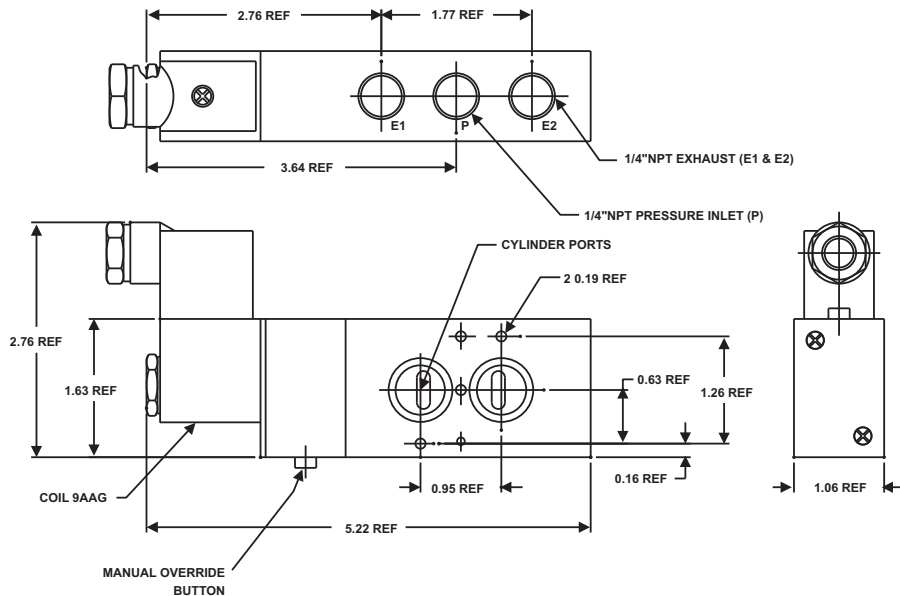


Figure 1. Pressure Solenoid

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