

# Arzel<sup>®</sup> Zoning Technology, Inc. **ModuPASS<sup>™</sup>**

## Installation Instructions



Zoning systems and variable speed blowers go hand in hand. The ability to ramp up or cut back blower speed makes your zoning system work even better. And now, Arzel makes it easy!

In the past, bypasses that float to control static pressure sometimes caused the motor to ramp up and down, effectively “chasing the bypass”.

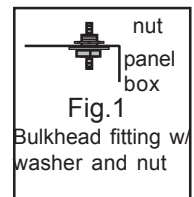
## The ModuPASS<sup>™</sup> Modulating Bypass System Changes Everything!

### System Description

The ModuPASS<sup>™</sup> - Modulating Bypass System consists of a “spring open” damper and a pressure transmitter that varies the amount of air that is fed to the bypass damper. As ductwork static pressure increases, the transmitter reduces the amount of air delivered to the damper causing the bypass damper to open. Conversely when the static pressure drops, more air is fed to the bypass damper and it closes.

### Installation Instructions

- 1 Install the bypass duct with the “**Spring Open**” Bypass damper. Bypass duct should enter return duct as far from equipment as possible, prior to first reducer or take off. Bypass damper should be located on the supply end of the bypass duct.
- 2 Mount the Pressure Transmitter on the supply duct within 24” of the Bypass damper.
- 3 If your panel already has a ModuPass<sup>™</sup> port on the top of the control panel skip to step 7.
- 4 Install a bulkhead fitting into an open solenoid slot in the top of the control panel with a nylon washer and nut. (Fig.1)
- 5 Cut a tee into the pressure line. (left side of pump and bottom of any zone solenoid, usually yellow stripe)  
See Fig. 2 reverse)
- 6 Connect the tee of the field install kit to the ModuPASS Port bulkhead fitting with the supplied yellow tubing.
- 7 Connect the ModuPass port to the Restrictor (black) on the Pressure Transmitter tee. (See Fig. 2 reverse)
- 8 Insert the Pressure sensing tube into the supply duct (5/16” hole) between the equipment and the bypass duct.
- 9 Connect the damper tubing to the Pressure Transmitter Tee, opposite of the restrictor (remove red cap). (Fig.2)
- 10 With only the smallest zone calling for cooling, adjust the Pressure Transmitter for maximum branch run velocity with minimal air noise at the smallest zone registers.



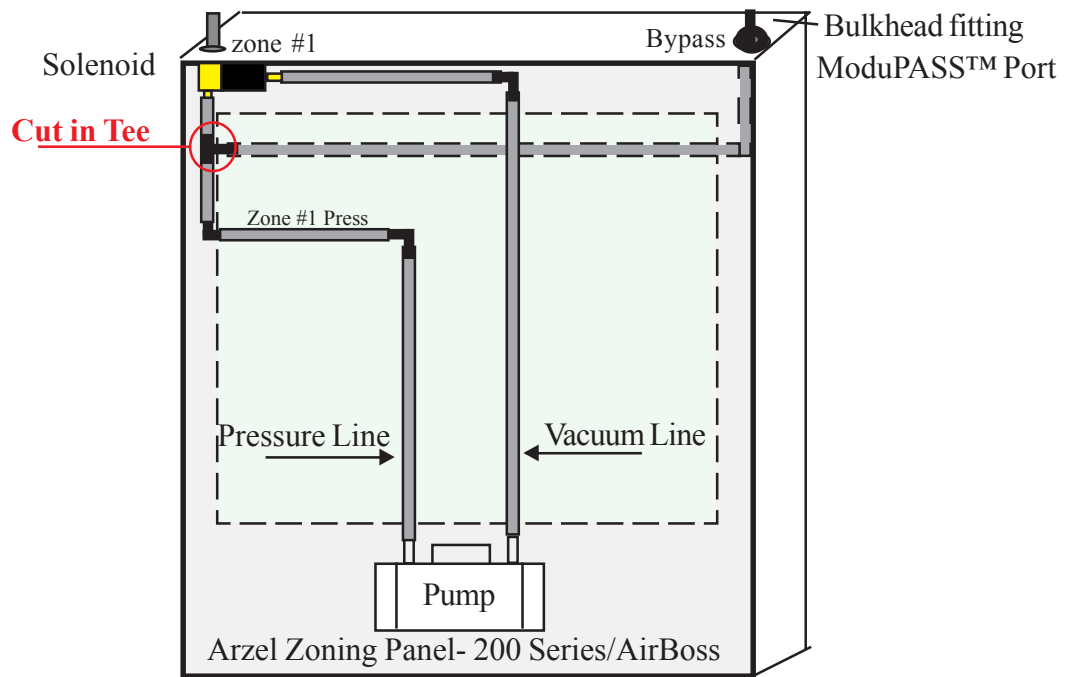


Fig. 2

Panel with bulkhead fitting and pressure tubing installed. On panels without Modupass port, Tee can be cut into any pressure side tubing.

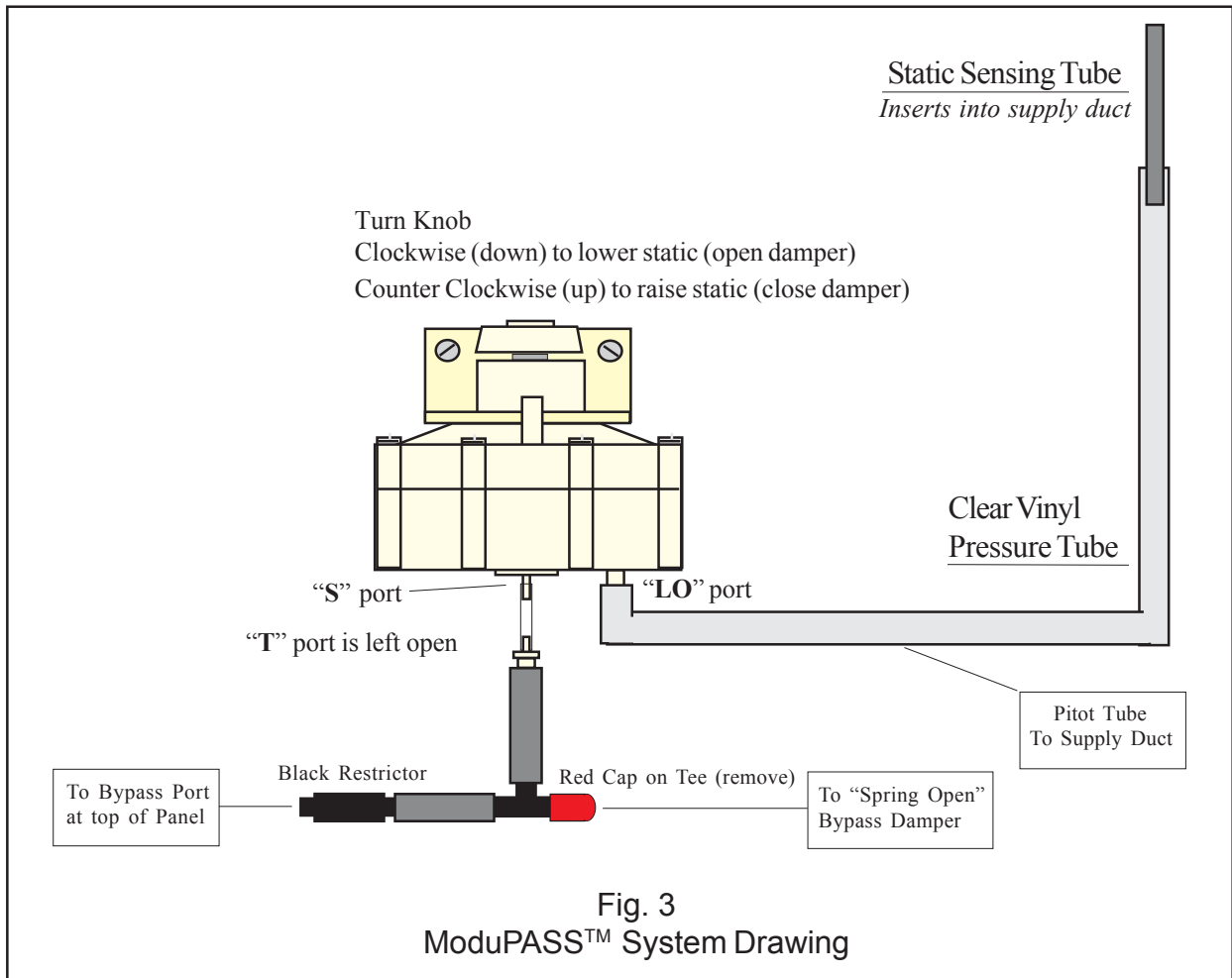


Fig. 3

ModuPASS™ System Drawing