



Static Pressure Control (SPC)

INSTALLATION INSTRUCTIONS

APPLICATION

The Static Pressure Control (SPC) is an adjustable, single-pole double-throw differential pressure switch. It is used to control a floating-type modulating damper for bypass zone applications. Acceptable dampers are MARD or the 90-second ML6161 Actuator. The contacts are rated at 125 VA. See Fig. 1.

INSTALLATION

Selecting the Mounting Location

1. Locate the SPC near the supply air ductwork. Fig. 1 shows the dimensions in inches (mm).
2. Orient it with the adjustment screw on the top as shown in Fig. 2.
3. Use the supplied bracket and hardware.

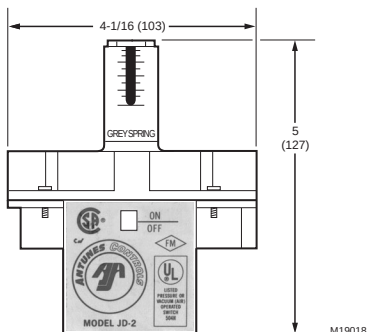
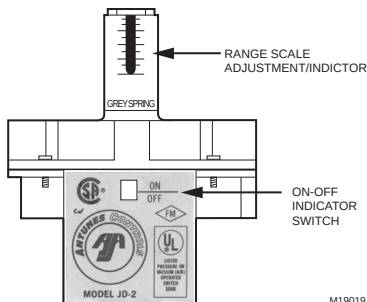


Fig. 1. SPC dimensions in inches (mm).



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Fig. 2. Correct mounting orientation.

Mounting the SPC

1. Mount the SPC near the supply ductwork in the upright position.
2. Install one threaded barb fitting into the lower pressure port as shown in Fig. 3.
3. Attach the supplied tubing to the barbed fitting.
4. Drill a 1/2 in. hole into the ductwork and insert the supplied surface mount duct fitting.
5. Seal it with a small amount of silicone sealant and attach with the two supplied self-tapping screws.
6. Connect the opposite end of the tubing to the barbed end of the duct fitting.



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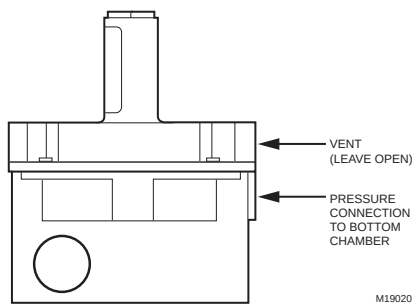


Fig. 3. Installing threaded barb fitting into lower pressure port.

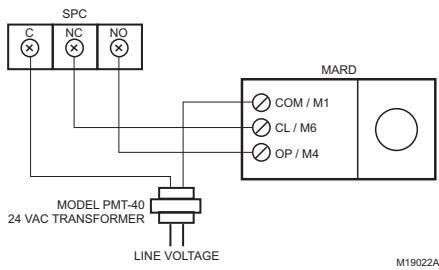


Fig. 5. Wiring SPC to MARD damper in bypass application.

WIRING

Wire the SPC to the damper and a 24 Vac, 40 VA transformer (not supplied) as shown in Fig. 4 and 5.

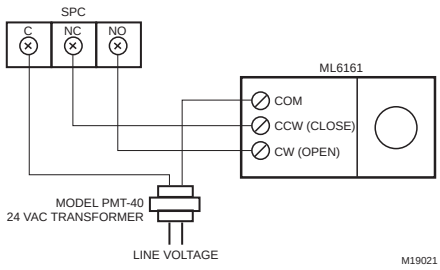


Fig. 4. Wiring SPC to control ML6161 Actuator in a bypass application.

SETTINGS

The SPC is adjustable from 0.1 in. wc to 4.0 in. wc with a 10–15 percent null range. The factory setting is 0.1 in. wc. To adjust this setting, remove the hexagonal screw cap at the top of the indicator and turn the adjusting screw with a screwdriver. The top of the adjusting screw is the indicator as shown in Fig. 6.

To increase the pressure setting, turn the screw down (clockwise). To decrease the pressure setting, turn the screw up (counter-clockwise).

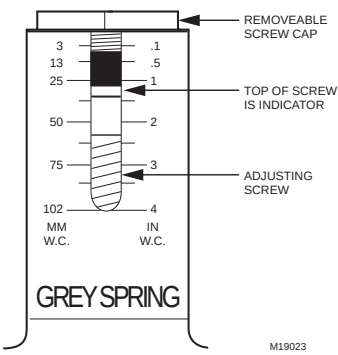


Fig. 6. Static pressure range settings.

CHECKOUT

Make all zones call and verify that the bypass damper is fully closed. Then make the smallest zone the only one calling and verify that the bypass damper is open.

TROUBLESHOOTING

If the SPC does not operate as specified in the Checkout procedure, see Table 1.

Table 1. Troubleshooting.

Problem	Possible Trouble	Solution
SPC does not operate the damper.	Problem with the tubing.	Verify that the tubing is not kinked or plugged.
	Wired incorrectly.	Verify the wiring.
Bypass damper closes as zones are satisfied.	Incorrectly wired damper.	Verify that the N.C. and N.O. are correctly wired to the damper.
Damper does not open enough when the smallest damper is the only one calling.	SPC is set too high.	Decrease the pressure setting by turning the adjustment screw up (counterclockwise).
Damper does not close fully when all zones are calling.	SPC set too low.	Increase the pressure setting by turning the screw down (clockwise).



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1-800-468-1502
69-1526-01 M.S. 07-21 | Printed in United States