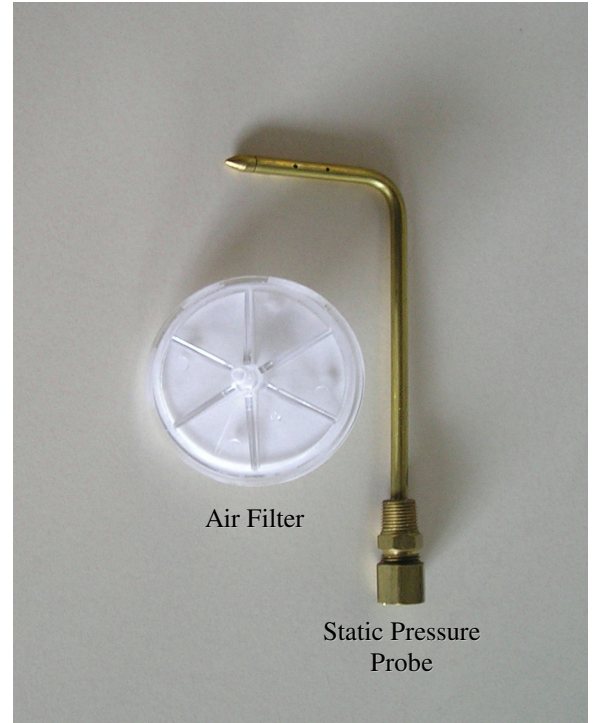


THERMAL PRODUCTS CORPORATION

ESPC 4006 Static Pressure Controller With Built In Transducer, External Air Filter and Static Pressure Probe



DESCRIPTION: The ESPC 4006 is a damper actuator and static pressure controller. It uses a multi-port passive mass airflow sensor utilizing two Wheatstone bridges, each measure dynamic differential pressure, which corresponds linearly to reset. The "HI" port "P1" of the pressure sensor is connected by .2" O.D. tubing to the static pressure probe. A line filter is insert between the "HI" port "P1" and the static pressure probe. The "LO" port "P2" is left open to the controller is in the conditioned space or .2" O.D. tubing is connected to the atmosphere if the "LO" port "P2" and run to the conditioned space.

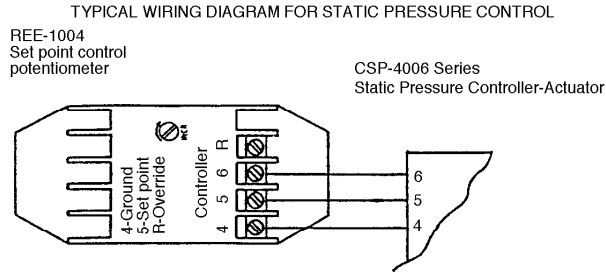
CEP

Terminal Connect To:

1. No Connection
2. *Live Velocity Readout, 1-6 VDC for 1" or 2" range
3. No connection
4. REE1004 controller terminal "-", Ground Reference
5. REE1004 controller terminal "+", 9.1 VDC @ 22 mA
6. REE1004 controller terminal Reset
7. Unused
8. Unused
9. 24 VAC "-", (Connect to earth ground if transformer
10. 24vac "-" -15/+20% @ 8 VA required (20.4 to 28.8 VAC)
11. Motor Common
12. Motor Drive to Increase Velocity, **DO NOT APPLY VOLTAGE TO TERMINAL**
13. Unused
14. Motor Drive to Decrease Velocity, **DO NOT APPLY VOLTAGE TO TERMINAL** *Live velocity readout; Connect voltmeter "+" to terminal 2 and voltmeter "-" to terminal 4. **DO NOT DIRECTLY SHORT TERMINAL 2 TO TERMINAL 4.**

INSTALLATION/CALIBRATION

As shown above, the ESPC-4006 /actuator mounts to a standard 1/2" diameter shaft by means of two setscrews. An optional 3/8" diameter shaft adaptor is available. The anti-rotation brackets (supplied and taped to each controller) mounts at the other end of the controller and prevents controller movement. Each controller is factory calibrated and no further calibration is needed. The possibility of dust contamination can be minimized by installing the in-line filter (included) on the "P1" high side of the mass airflow sensor. This must be installed. See maintenance on next page.



MAINTENANCE

The material selection for each component has been made with consideration for long term operation. The electric motors are permanently lubricated, and all internal gear-train components are oil impregnated. A periodic or annual inspection of the air filter is recommended. Replace filter if filter material appears clogged. Strict adherence to the installation methods will enhance the operation of these controls.