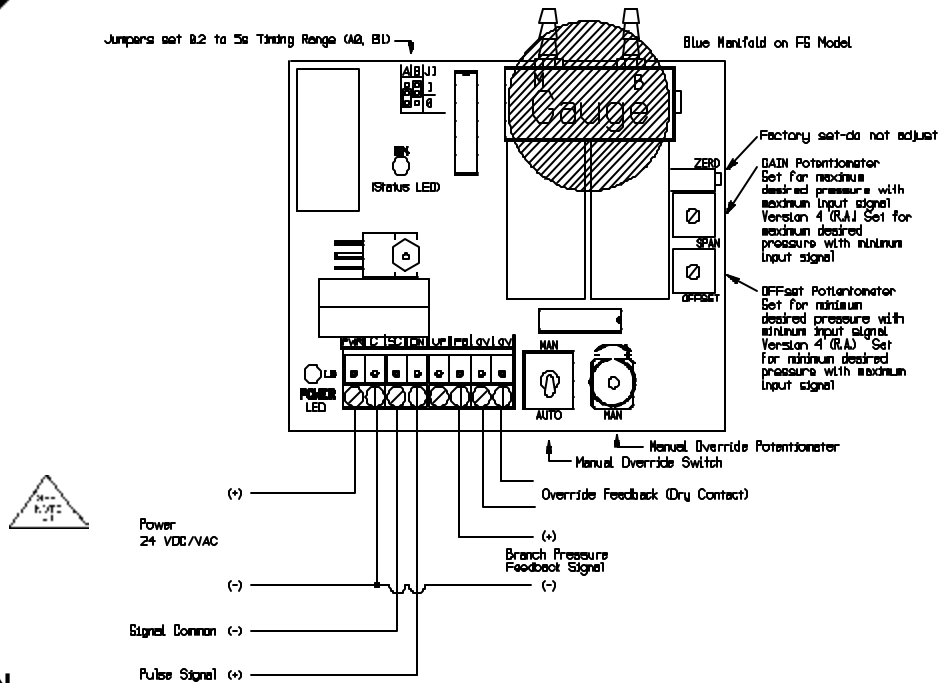




EPW2FSG/E

Pulse Width Modulated Input to Modulated Pressure Output /Fail Safe
with gauge



INSTALLATION

READ THESE INSTRUCTIONS BEFORE YOU BEGIN INSTALLATION.

Ground yourself before touching board. Some components are static sensitive.

MOUNTING:

Circuit board may be mounted in any position. If mounted in snaptrack (not provided) and circuit board slides out of snap track, a nonconductive "stop" may be required. Use only fingers (no tools) to remove board from snap track. Slide out of snap track or push against side of snap track and lift that side of the circuit board to remove.

POWER CONNECTIONS - THIS PRODUCT ACCEPTS 24 VOLTS AC OR DC POWER

Be sure to follow all local and electrical codes. Refer to wiring diagram for connection information.

- 1) The secondary supply voltage to the interface should be isolated from earth ground, chassis ground, and neutral leg of the primary winding. Any field device connected to this transformer must use the same common. Grounding should be to the system common only. If you are not sure of other field device configuration, use separate transformers. If you do not observe this proper operation may not occur.
- 2) If the 24 volt AC power is shared with devices that have coils such as relays, solenoids, or other inductors, each coil must have an MOV, AC Transorb, or other spike snubbing device across each of the shared coils. Without these snubbers, coils produce very large voltage spikes when de-energizing that can cause malfunction or destruction of electronic circuits.
- 3) If the 24 volt DC power is shared with devices that have coils such as relays, solenoids, or other inductors, each coil must have an MOV, DC Transorb, or a diode placed across the coil or inductor. The cathode or banded side of the diode (or DC Transorb) connects to the positive side of the power supply. Do not power without main air supply provided.
- 4) You should measure the actual voltage output of the secondary. If the output is not fully loaded you may read a higher voltage than the circuit board can handle.

Warranty does not include malfunction due to clogged valve. Main air port is filtered with the supplied 80-100 micron integral-in-barb filter. Periodically check the filter for contamination and flow reduction, and clean with a brush or replace if needed (Part # PN004).

The surface between the manifold and pressure transducer is a pressure seal. Do NOT stress the circuit board or allow the manifold to move. Hold the manifold in one hand while installing pneumatic tubing onto the barbed fittings and use care when removing tubing to avoid damaging fittings or moving manifold.

GAUGE POSITION ADJUSTMENT. If installation requires adjustment of the gauge for proper reading of the face, turn the gauge counterclockwise. O rings in the bottom of the gauge port will allow minimum movement without leakage.



This unit requires at least two cubic inches of branch air line capacity to operate without valve oscillation, and main air must be minimum of 2 psig above highest desired branch output pressure.

The input signal will not cause "wrap around" or start over if the upper range limit is exceeded.

CHECKOUT

SIGNAL INPUT: EPW2FSG/E has a factory set input timing range of 0.2 to 5 seconds (Jumper shunts in positions A0 and B1)

With the power off, connect the pulse input positive (+) to the down (DN) terminal, and common to the signal common (SC) terminal. During the pulse an AC or DC voltage can be measured between the (SC) and (DN) terminals. Note: Terminal blocks are removeable.

SIGNAL OUTPUT: The EPW2FSG/E is factory calibrated at 2 psig minimum and 17 psig maximum output.

Operation: STATUS LED will flash quickly when EPW2FSG/E is receiving an input pulse, at the rate of the minimum resolution of the pulse range.

The input signal will NOT cause "wrap around" or start over if the upper range limit is exceeded. The pneumatic output changes when the input pulse has been completed. Pressure output between the minimum and maximum values will be linear, therefore software algorithms should be easy to derive.

The EPW2FSG/E incorporates two valves and is not a constant bleed controller. Its branch exhaust flow and response time is not limited by an internal restrictor and is similar to its load rate. If power is lost, the EPW2FSG/E will exhaust its branch line pressure to 0 psig. The EPW2FSG/E is ideal for long branch line runs, multiple actuators, and outside air dampers because of its 750 scim capacity.

Manual override: Place the AUTO/MAN switch in the MAN position. Turn the shaft on the MAN potentiometer to increase or decrease the pneumatic output. Return AUTO/MAN switch to AUTO position when finished.

Override Terminals (OV): When manual override switch is in manual position, contact between terminals is closed. When manual override switch is in auto position, contact between terminals is open.

Power Supply Voltage: 24 VDC or 24 VAC (+/- 10%) at EPW2FSG/E terminals	Air Supply: Maximum 25 psig, minimum 20 main air supply, 2-17 psig output pressure range
Supply Current: 200 mA maximum	Air Flow @ 20 psig main/15 psig out, Supply valve 750 scim, Exhaust rate: 750 scim.
Input Signal: 9 to 24 Volts AC or DC, relay contact closure, TRIAC, or transistor (solid state relay)	Pressure Gauge: 0-30 psi (rear stem)
Input Signal Impedance: 750 ohms nominal	Size: 4.0"L x 3.450"W x 3.125" H including gauge