



# EPC2GB/EPC2GFSB

Analog Current or Voltage Input to Pneumatic Output  
including Fail Safe

## FEATURES

- Painted steel housing with mounting flange
- Terminals and air connections oriented for panel installation
- Manual/Auto toggle switch reports override status to controller, Adjustable Pressure Output Pot active in Manual Mode
- Field selectable analog input ranges and pressure output ranges
- Analog Feedback on branch pressure
- Field adjustable offset and span.
- Closed loop control, 1% accuracy at room temperature
- EPC2GFSB is Fail Safe and uses new circuitry for **QUIET** operation
- Pluggable Terminal Block
- Not Position Sensitive, mount at any angle
- 50/60 Hz Compatible
- Integral-in-barb filter.
- Gauge installed on anodized aluminum manifold



## APPLICATIONS

- 3 Way Mixing Valve Control
- Chiller Loading
- Pilot Positioner Control
- Pneumatic Valve and Damper Actuator Control
- Fan Vane Control
- DDC Control

## PRODUCT DESCRIPTION

The EPC2GB is an electric to pneumatic transducer which converts an analog input signal to a proportional pneumatic output. The EPC2GB will automatically modulate its control valves to regulate the branch line pressure to the selected set point as determined by the input signal.

The EPC2GB offers four selectable input ranges of 0 to 5, 0 to 10, 0 to 15 VDC and 0 to 20 mA.

Output pressure ranges are jumper shunt selectable for 0 to 10, 0 to 15 and 0 to 20 psig, and adjustable in all ranges. Branch line pressure gauge is standard.

A 0-5 VDC feedback signal indicating the resultant branch line pressure, is also provided. This signal varies linearly with branch pressure range selected.

EPC2GB's steel enclosure is designed with electrical terminals on one end and pneumatic connections on the other, allowing for maximum convenience in wiring and tubing installation when panel mounted.

The EPC2GB incorporates two valves (one controls exhaust) and does not bleed air at set point. It's branch exhaust flow and response time are not limited by an internal restrictor and are similar to its load rate.

If power fails to the EPC2GB, branch line pressure remains constant if the branch line does not leak air.

**FAIL SAFE:** The **EPC2GFSB** shares the same specifications as the EPC2GB except for the blue anodized manifold and its 3-way branch valve that exhausts branch line air upon power failure.

All factory calibrated products are NIST traceable. Certificates of Compliance must be ordered with product.

## ORDERING INFORMATION

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Specify: **EPC2G**

**B**

- 2 valve - maintains branch pressure, 750 scim supply valve, 750 scim exhaust

**FSB**

- 2 valve - exhausts on power failure, 750 scim supply valve, 750 scim exhaust

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## SPECIFICATIONS

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### Electrical Requirements

Power Supply: Voltage	24 VDC (+10%/-5%). 24 VAC (+/-10%), 50 or 60 Hz.
Power Supply: Current	180 mA maximum, 200 mA maximum on FS (fail-safe) model.
Input: Range and Impedance	Four jumper selectable ranges: 0 to 5 VDC / infinite ohms. 0 to 10 VDC / infinite ohms. 0 to 15 VDC / infinite ohms. 0 to 20 mA / 250 ohms.
Feedback: Output Signal Range	0 to 5 vdc = Output pressure range selected.

### Mechanical Requirements

#### *Air Supply*

Supply Pressure

Maximum 25 psig (172.38 kPa), minimum 18 psig (124.11 kPa). Main air pressure must be minimum of 2 psig (13.79 kPa) above maximum output pressure desired.

Air Consumption

None at setpoint.

#### *Output*

Pressure Range - Field Calibration Possible  
Output Pressure Range - Jumper Selectable

0 to 20 psig (0-138 kPa) maximum.  
0 to 10 psig (0-68.95 kPa).  
0 to 15 psig (0-103.43 kPa).  
0 to 20 psig (0-137.9 kPa).

Accuracy

1% @ room temperature,  
2% full scale @ 32 to 120 deg. F (0 to 48.8 deg. C).

Manual/Auto Override

When switched to MAN, output can be varied.  
When switched to AUTO, output is controlled from input signal.

Manual/Auto Override Feedback

Dry Contacts (24 VAC or 24 VDC, 1 amp maximum). N.O. in AUTO operation (optional: N.O. in MAN operation).

#### *Pneumatic Capacity*

Air Flow:

Supply valves @ 25 psig (172.38 kPa) main/20 psig (137.9 kPa) out, 750 scim. Branch line requires 2 cubic inches minimum. **Recommend branch line minimum of 25 feet of 1/4" O.D. polyethylene tubing for maximum results on EPC2GFSB.**

Filtering:

Furnished with 80-100 integral-in-barb micron filter (Part # PN004)

#### *Connections*

Wire Size  
Terminal Type  
Pneumatic Fitting Type

Up to one 14 gauge wire per terminal.

Plug-in Blocks with 5mm pin spacing

Brass barbed fittings for Main and Branch tubing mounted in black anodized machined aluminum manifold (blue manifold on FS model).

Supplied with 1-1/2" (3.81 cm), 0-30 psig pressure gauge.

1/4" O.D. nominal (1/8" I.D.) polyethylene.

Pneumatic Tubing Size/Type

4.4" (8.255 cm) L x 4.25" (10.8 cm) W x 3.35" (8.509 cm) H.

#### *Dimensions*

#### *Mounting*

Painted steel housing has mounting flange with four (4) holes for sheet metal screws.

#### *Weight*

EPC2GB, EPC2GFSB - 14.5 oz. (411.09 grams)

### Environmental Requirements

*Operating Temperature*

32 to 120 deg. F (0 to 48.8°C)

*Storage Temperature Range*

-20 to 150 deg F (-6.66 to 65.55°C)

*Operating Humidity Range*

5 to 95% non-condensing