

*Analog Current or Voltage Input to Pneumatic Output  
Single, Dual Valve (750 and 1400 scim), and Fail Safe*

## FEATURES (See also NXP2)

Same as the PXP\*.3 but with the following 5 added features:

- Field adjustable offset and span.
  - Manual/Auto toggle switch reports override status to controller and potentiometer allows adjustment of pressure output in Manual Mode.
  - Field selectable pressure output ranges.
  - Plug-in Terminal Block.
  - Terminals and air connections oriented for convenient panel installation.
- Field selectable analog input ranges
  - Analog Feedback on branch pressure
  - EPC2FS is Fail Safe and uses new circuitry for **QUIET** operation
  - Closed loop control, 1% accuracy at room temperature.
  - Not Position Sensitive.
  - 50/60 Hz Compatible.
  - Supplied with snap track and integral-in-barb filter, except for LG model which has external 5 micron in-line filter.
  - Black anodized aluminum manifold (blue on failsafe model) with gauge port, gold manifold on 1400 scim LG models.



Shown with optional gauge

Optional DRC Kit for DIN Rail Mounting-Clips mount either direction on snap track

## APPLICATIONS

- 3 Way Mixing Valve Control
- Pilot Positioner Control
- Above ceiling applications (mixing and VAV boxes)
- Pneumatic Valve and Damper Actuator Control
- Fan Vane Control
- DDC Control

## PRODUCT DESCRIPTION

The EPC\* is an electric to pneumatic transducer which converts an analog input signal to a proportional pneumatic output, modulating its control valve(s) to regulate the branch line pressure to the set point determined by the input signal.

The EPC\* 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.

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

EPC's are 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 EPC is a constant bleed interface with branch exhaust response time determined by the bleed orifice size and pressure differentials.

If power fails to the EPC, it will continue to bleed

through the bleed orifice until branch pressure is zero psig.

The EPC2 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.

EPC2LG operates as the EPC2, but has a higher air flow rate (1400 scim) using an external 5 micron filter, and includes a 0-30 psi gauge.

If power fails to the EPC2 or EPC2LG, branch line pressure remains constant if the branch line does not leak air.

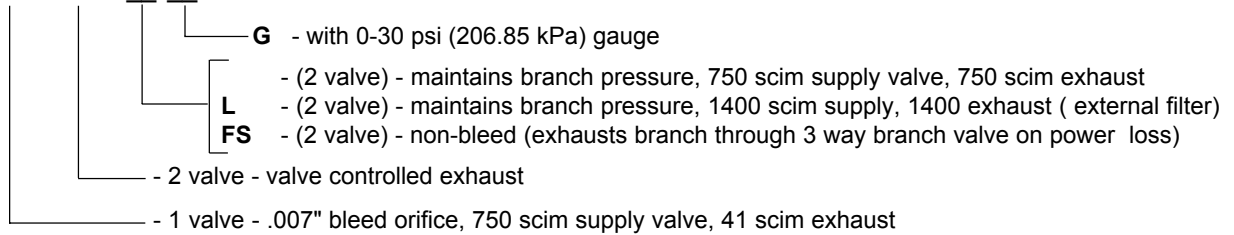
**FAIL SAFE:** The **EPC2FS** shares the same specifications as the EPC2 except its 3-way branch valve will exhaust branch line air upon power failure **and features quiet operation.**

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

See also NXP2 which offers silent operation using a special Nitinol actuated valve.

## ORDERING INFORMATION

Specify: **EPC EPC2**



## SPECIFICATIONS

### Electrical Requirements

Power Supply: Voltage	24 VDC (+10%/-5%). 24 VAC (+/-10%), 50 or 60 Hz.
Power Supply: Current	180 mA maximum, 200mA on EPC2FS.
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

See data under "Ordering Information" above.

#### 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.

Manual/Auto Override Feedback

When switched to AUTO, output is controlled from input signal.

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 (1400 on LG model). **Branch line minimum of 25 feet of 1/4" O.D. polyethylene tubing for optimum result on FS model.**

Filtering:

Furnished with 80-100 integral-in-barb micron filter (Part # PN004) except for EPC2LG which is furnished with in-line 5 micron filter.

#### Connections

Wire Size

Up to one 14 gauge wire per terminal.

Terminal Type

Plug-in Blocks with 5mm pin spacing (optional fixed terminal strip with 45° captive screw, moving clamp design in nickel plated copper alloy)

Pneumatic Fitting Type

Brass barbed fittings for Main and Branch tubing mounted in anodized machined aluminum manifold. Supplied with plugged 1/8"-27 FNPT gauge port. Gauge installed at additional cost (standard on LG).

Pneumatic Tubing Size/Type

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

#### Dimensions

3.25" L x 3.25" W x 1.875" H (3.125" with gauge) or 8.255 cm L x 8.255 cm W x 4.763 cm H (7.938 cm with gauge & mounted in snap track)

#### Mounting

Furnished with snap track pre-punched for DRC kit to DIN rail mount

#### Weight

EPC - 5 oz. (141.75 grams), EPC2 - 6.9 oz. (195.62 grams), EPC2LG and EPC2FS - 9.2 (260.82 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