



EPC

Analog to Pneumatic Output

The EPC Series are electric to pneumatic transducers which convert 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 series offers four selectable input ranges. Output pressure ranges are jumper shunt selectable and adjustable in all ranges. A feedback signal indicating the resultant branch line pressure is also provided. EPC Series 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 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), does not bleed air at set point, and has a 2300 scfm supply and exhaust. Its 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 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. The EPC2F5 shares the same specifications as the EPC2 except its 3-way branch valve will exhaust branch line air upon power failure. Custom calibration is available upon request for an additional charge. This will speed up installation time for the end user.

Applications: 3 Way Mixing Valve Control, Chiller Loading, Pilot Positioner Control, Pneumatic Valve & Damper Actuator Control, Fan Vane Control, DDC Control, Above Ceiling Applications (Mixing & VAV Boxes)

The EPC is covered by ACI's Two (2) Year Limited Warranty. The warranty can be found in the front of ACI's Sensors & Transmitters catalog, as well as on ACI's

PRODUCT SPECIFICATIONS

Supply Voltage:	24 VAC (+/- 10%), 50/60 Hz, 24 VDC (+10% / -5%)
Supply Current:	500 mAAC, 200 mADC Maximum
Input Signal Source (@ Impedance):	0-5 VDC @ infinite Ω 0-10 VDC @ infinite Ω 0-15 VDC @ infinite Ω 0-20 mA / 250 Ω
Feedback Signal Output Range:	0-5 VDC = Output Span
Output Pressure Range:	Field Calibration Possible: 0 to 20 psig (0-138 kPa) maximum
Output Pressure Range - Jumper Selectable:	0-10 psig (0-68.95 kPa), 0-15 psig (0-103.43 kPa) or 0-20 psig (137.9 kPa)
Air Supply Pressure:	Maximum 25 psig (172.369 kPa), minimum 22 psig (151.69 kPa)
Air Consumption:	See Ordering Grid
Output Pressure Accuracy:	1% room temperature 2% full scale across operating temperature range
Manual / Auto Override Switch:	MAN function = output can be varied AUTO function = output is controlled from input signal
Manual / Auto Override Feedback Output:	Dry Contacts: 24 VDC/VAC @ 1A maximum, N.O. in AUTO operation (Optional: N.O. in MAN operation)
Air Flow:	Supply valves @ 25 psig (172.38 kPa) main/20 psig (137.9 kPa) out, 2300 scfm Branch Line requires 2 in ³ / 33.78 cm ³ (min.) Min. 25 ft of 1/4" O.D. poly branch tubing
Filtering:	Furnished with integral-in-barb 80-100 micron filter (Part #PN004) except for EPC2LG which is furnished with external 5 micron in-line filter (PN021)
Connections Wire Size:	90° Pluggable Screw Terminal Blocks 16 (1.31 mm ²) to 26 AWG (0.129 mm ²)
Terminal Block Torque Rating:	0.5 Nm (Minimum); 0.6 Nm (Maximum)
Connections Pneumatic Tubing Size-Type:	1/4" O.D. nominal (1/8" I.D.) polyethylene
Pneumatic Fitting:	Removable brass fittings for Main & Branch in machined manifold, Plugged 1/8-27-FNPT gauge port
Gauge Pressure Range (Gauge Models):	0-30 psig (0-200 kPa)
Gauge Pressure Accuracy (Gauge Models):	±2.5% Midscale (±3.5% Full Scale)
Operating Temperature Range:	35 to 120°F (1.7 to 48.9°C)
Operating Humidity Range:	10 to 95% non-condensing
Storage Temperature Range:	-20 to 150°F (-28.9 to 65.5°C)
Snaptrack Material:	Polyvinyl Chloride (PVC)
Snaptrack Flammability Rating:	UL94 V-0
Enclosure Options (Box Options):	Painted steel housing has mounting flange with four holes for sheet metal screws
Product Dimensions:	See table on back of product data sheet
Product Weight:	EPCG: 0.46 lbs. (0.2069 Kg) EPC2G: 0.70 lbs. (0.3175 Kg) EPC2GFS: 0.68 lbs. (0.309 Kg) EPC2GB: 1 lbs 1 oz. (0.482 Kg) EPC2GFSB: 0.96 lbs. (0.436 Kg)
Agency Approvals:	RoHS2, WEEE



DIMENSIONAL DRAWING

EPC 		
Board Only	Snap Track	Snap Track
EPC With Gauge 		
Board with Snap Track (Front View)	Board with Snap Track (Side View)	Board with Snap Track (Top View)

STANDARD ORDERING

Model # Example: **EPC** -OR- **102475**

Model #	Item #	Supply (Main)	Exhaust (Branch)	Gauge	Additional Information
EPC	102475	2300 SCIM (37.69 Liters)	41 SCIM (0.6719 Liters)		0.007" Bleed Orifice
EPCG	102480	2300 SCIM (37.69 Liters)	41 SCIM (0.6719 Liters)	•	0.007" Bleed Orifice
EPC2	102476	2300 SCIM (37.69 Liters)	2300 SCIM (37.69 Liters)		Maintains Branch Pressure
EPC2G	102478	2300 SCIM (37.69 Liters)	2300 SCIM (37.69 Liters)	•	Maintains Branch Pressure
EPC2FS	102477	2300 SCIM (37.69 Liters)	2300 SCIM (37.69 Liters)		Exhausts on Power Failure (1600 SCIM)
EPC2GFS	102479	2300 SCIM (37.69 Liters)	2300 SCIM (37.69 Liters)	•	Exhausts on Power Failure (1600 SCIM)
EPC2LG	106325	2300 SCIM (37.69 Liters)	2300 SCIM (37.69 Liters)	•	Maintains Branch Pressure, High Flow
EPC2GB	106326	2300 SCIM (37.69 Liters)	2300 SCIM (37.69 Liters)	•	Enclosed in Steel Housing, Maintains Branch Pressure
EPC2GFSB	106327	2300 SCIM (37.69 Liters)	2300 SCIM (37.69 Liters)	•	Enclosed in Steel Housing, Maintains Branch Pressure

ACCESSORIES ORDERING

Model # Example: **A/DO008** -OR- **142583**

Model #	Item #	Description
A/DO008	142583	Transient Voltage Suppressor, Bi-directional, 56 VAC/VDC, 1500W
A/DRC 2.7 X 3.25	142624	DIN Rail Adapter Kit
A/PN002	136499	10-32 X 1/8" ID, Barb Fitting
A/PN004	110831	80-100 Micron Filter Media in Barb Fitting
A/PN021	112219	In Line 10 Micron Filter, Installs in-between air supply and main barb connection
A/PN028	128307	Replacement Gauge