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 750 scim 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 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. The EPC2FS 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)

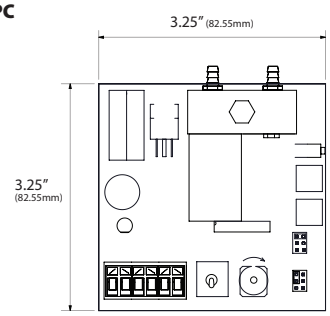
The EPC is covered by ACI's Two (2) Year Limited Warranty. The warranty can be found in the front of ACI's Sensors & Transmitters catalog, as well as on ACI's website, www.workaci.com.

PRODUCT SPECIFICATIONS

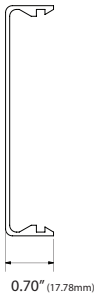
Supply Voltage:	24 VAC (+/-10%), 50 or 60Hz, 24 VDC (+10%/- 5%)
Supply Current:	180 mA maximum, 200 mA on fail safe models
Input Signal Source (@ Impedance):	0-5 VDC @ infinite Ω | 0-10 VDC @ infinite Ω | 0-15 VDC @ infinite Ω | 0-20 mA / 250Ω
Feedback Signal Output Range:	0-5 VDC = Output Span
Output 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 28 psig (193.06 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, 750 scim (1400, LG model) Branch Line requires 2 in³ / 33.78 cm³ (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 mm²) to 26 AWG (0.129 mm²)
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:	Removeable brass fittings for Main & Branch in machined manifold, Plugged 1/8-27-FNPT gauge port
Gauge Pressure Range (Gauge Models):	0-30psig (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:	-20 to 150°F (-28.9 to 65.5°C)
Snaptrack Material:	Polyvinyl Chloride (PVC)
Snaptrack Flammability Rating:	UL94 V-0
Enclosure Option (Box Option):	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

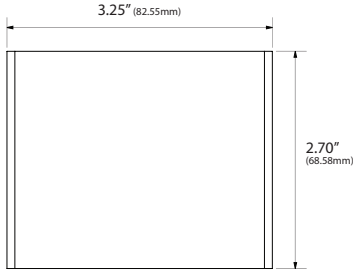
EPC



Board Only

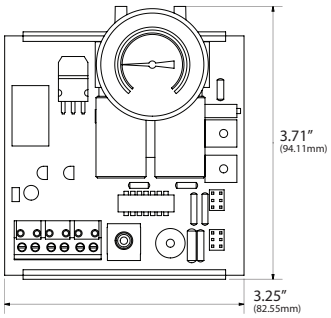


Snap Track

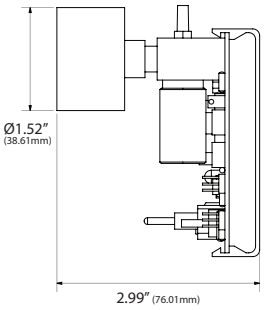


Snap Track

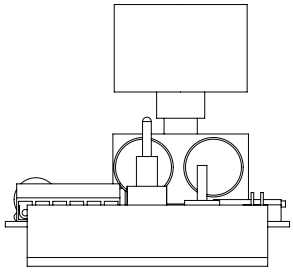
EPC With Gauge



Board with Snap Track



Board with Snap Track



Board with Snap Track

STANDARD ORDERING

Model # Example: EPC -OR- 102475

Model #	Item #	Supply	Exhaust	Gauge	Additional Information
EPC	102475	750 SCIM (12.29 Liters)	41 SCIM (0.6719 Liters)		0.007″ Bleed Orifice
EPCG	102480	750 SCIM (12.29 Liters)	41 SCIM (0.6719 Liters)	•	0.007″ Bleed Orifice
EPC2	102476	750 SCIM (12.29 Liters)	750 SCIM (12.29 Liters)		Maintains Branch Pressure
EPC2G	102478	750 SCIM (12.29 Liters)	750 SCIM (12.29 Liters)	•	Maintains Branch Pressure
EPC2FS	102477	750 SCIM (12.29 Liters)	750 SCIM (12.29 Liters)		Exhausts on Power Failure
EPC2GFS	102479	750 SCIM (12.29 Liters)	750 SCIM (12.29 Liters)	•	Exhausts on Power Failure
EPC2LG	106325	1400 SCIM (22.94 Liters)	1400 SCIM (22.94 Liters)	•	Maintains Branch Pressure, High Flow
EPC2GB	106326	750 SCIM (12.29 Liters)	750 SCIM (12.29 Liters)	•	Enclosed in Steel Housing, Maintains Branch Pressure
EPC2GFSB	106327	750 SCIM (12.29 Liters)	750 SCIM (12.29 Liters)	•	Enclosed in Steel Housing, Exhausts on Power Failure

ACCESSORIES

Model # Example: A/DO008 -OR- 142583

Model #	Item #	Description
A/DO008	142583	Transient Voltage Suppressor, Bi-directional, 56 VAC/DC, 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