EFP

Floating Point to Pneumatic Output

The EFP converts a floating point signal into a proportional pneumatic signal ranging from 0-20 psig. The pneumatic output is proportional to the signal input. The EFP* has a manual override switch with terminal strip contacts to indicate its status and a potentiometer to vary the pneumatic output. Two LEDs indicate UP or DOWN excursions, with an additional one for power indication. The EFP offers four jumper selectable rates of change in the output pressure. 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 the branch pressure range selected. It 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 EFP is a constant bleed interface with branch exhaust response time determined by the bleed orifice size and pressure differentials. If power fails to the EFP, it will continue to bleed through the bleed orifice until branch pressure is zero psig. The EFP2 incorporates two valves (one controls exhaust) and does not bleed air at set point. Its 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 EFP2, branch line pressure remains constant if the branch line does not leak air. The EFP2FS is a two valve fail safe model. Its three-way branch exhaust valve allows exhaust of branch line air on a power failure. Custom calibration is available upon request for an additional charge.

Applications: 3 Way Mixing Valve Control, Chiller Loading, Pilot Positioner Control, Pneumatic Valve and Damper Actuator Control, Fan Vane Control, Compressor Staging

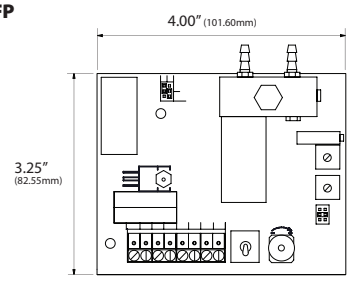
The EFP is covered by ACI's Two (2) Year Limited Warranty. The warranty can be found in the front of ACI's Sensors & Transmitters catalog, as well as on ACI's website, www.workaci.com.

PRODUCT SPECIFICATIONS

Supply Voltage:	24 VAC (+/-10%), 50 or 60Hz, 24 VDC (+10%/- 5%)
Supply Current:	50 mA, 150 mA (3.6 VA) on pressure excursions, 180 mA (4.3 VA) on pressure excursions (FS model)
Digital Input Signal Source:	Relay Contact Closure, Transistor or Triac
Digital Input Signal Level (@ Impedance):	9-24 VAC/VDC @ 750Ω
Digital Input Rates of Change:	See Ordering Grid
Manual / Auto Override Switch:	MAN function = output can be varied | AUTO function = output is controlled from input signal
Manual / Auto Override Feedback Output:	24 VDC/VAC @ 1A maximum, N.O. in AUTO operation (Optional: N.O. in MAN operation)
Feedback Output Signal Range:	0-5 VDC = Output Span
Air Supply Pressure:	Maximum 28 psig (193.06 kPa), minimum 22 psig (151.69 kPa)
Air Supply Consumption:	750 SCIM (12.29 liters)
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)
Output Pressure Accuracy:	2% full scale at room temperature (above 1 psig or 6.895 kPa) 3% full scale across operating temperature range (above 1 psig)
Air Flow:	Supply valves @ 20 psig (138 kPa) main/15 psig (103 kPa) out, 750 scim. Branch Line requires 2 in^3 or 33.78 cm^3 (minimum) | Min. 25 ft of 1/4" O.D. poly branch tubing
Filtering:	Furnished with integral-in-barb 80-100 micron filter (Part # PN004) Optional standard barb (PN002) 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:	Removeable 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:	-20 to 150°F (-28.9 to 65.5°C)
Snaptrack Material:	Polyvinyl Chloride (PVC)
Snaptrack Flammability Rating:	UL94 V-0
Product Dimensions:	**No Gauge:** (L) 4.00" (W) 3.25" (H) 1.87" (101.60 x 82.55 x 47.50 mm) **WIth Gauge:** (L) 4.00" (W) 3.25" (H) 2.95" (101.60 x 82.55 x 74.97 mm)
Product Weight:	**EFPG:** 0.596 lbs. (0.2703 Kg) | **EFP2G:** 0.76 lbs. (0.3459 Kg) | **EFP2GF:** 0.70 lbs. (0.3175 Kg)
Agency Approvals:	RoHS2, WEEE

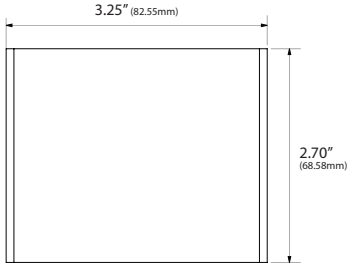
DIMENSIONAL DRAWING

EFP



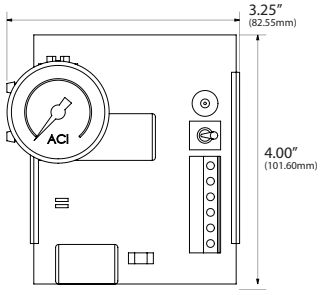
Board Only

Snap Track

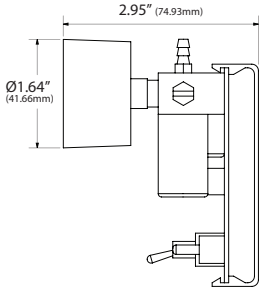


Snap Track

EFP With Gauge



Board with Snap Track



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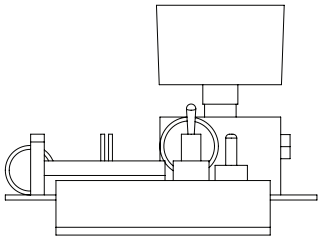

Board with Snap Track

STANDARD ORDERING

Model # Example: EFP -OR- 106319

Model #	Item #	Firmware Version #	Exhaust	Input Pulse Range	Gauge	Additional Information
EFP	106319	0186Y1A.HEX	41 SCIM (0.6719 Liters)	45s, 90s, 1 min, 2 min		0.007" Bleed Orifice
EFPG	106320	0186Y1A.HEX	750 SCIM (12.29 Liters)	45s, 90s, 1 min, 2 min	•	0.007" Bleed Orifice
EFP2	106321	0186Y1A.HEX	750 SCIM (12.29 Liters)	45s, 90s, 1 min, 2 min		Maintains Branch Pressure
EFP2G	106322	0186Y1A.HEX	750 SCIM (12.29 Liters)	45s, 90s, 1 min, 2 min	•	Maintains Branch Pressure
EFP2G VERSION #2	129480	0206Y0B.HEX	750 SCIM (12.29 Liters)	30s, 3 min, 6 min, 8 min	•	Maintains Branch Pressure
EFP2FS	106324	0186Y1A.HEX	750 SCIM (12.29 Liters)	45s, 90s, 1 min, 2 min		Exhausts on Power Failure
EFP2GFS	106323	0186Y1A.HEX	750 SCIM (12.29 Liters)	45s, 90s, 1 min, 2 min	•	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