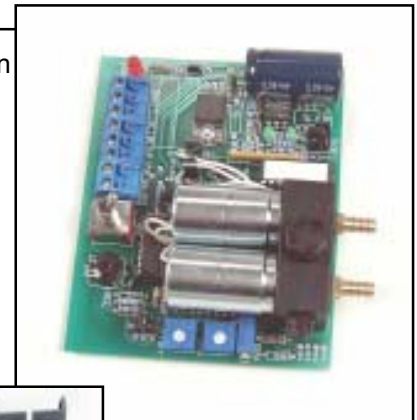


*Floating Point Input to Pneumatic Output
 Single Valve, Dual Valve, and Fail Safe*

FEATURES (See also NTS4)

- Terminals and air connections oriented for convenient panel installation
- Manual/Auto toggle switch reports override status to controller, and Adjustable Pressure Output Pot active in Manual Mode
- Four Field Selectable Rates of Change
- Three Field Selectable Pressure Output Ranges
- Field Adjustable Offset and Span
- EFP is bleed type, EFP2 has valved branch exhaust which holds pressure on power loss, EFP2FS is valved branch exhaust which fails safe to 0 psig branch pressure, and uses new circuitry for **QUIET** operation
- Analog Feedback on branch pressure
- Closed loop control, 2% accuracy at room temperature
- Plug-in Terminal Block
- Not Position Sensitive
- 50/60 Hz Compatible
- Anodized aluminum manifold, supplied with Filter-in-Barb



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

APPLICATIONS

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

PRODUCT DESCRIPTION

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 branch pressure range selected.

EFP* 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.

Three basic configurations are available:

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 EPW, 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.

FAIL SAFE: The **EFP2FS** is a two valve fail safe model. Its 3-way branch exhaust valve allows exhaust of branch line air on a power failure.

See also NTS4 which offers silent operation using a special Nitinol operated valve.

ORDERING INFORMATION

Specify: **EFP** **G** = with 0-30 psi (206.85 kPa) gauge

- 2** - 1 valve - 0.007" bleed orifice 750 scim supply valve, 41 scim (.6719 liters) constant bleed
- 2** - 2 valve - maintains branch pressure 750 scim supply valve, 750 scim (12.29 liters) exhaust
- 2G** - 2 valve - maintains branch pressure 750 scim supply valve, 750 scim (12.29 liters) exhaust, w/ gauge
- 2FS** - 2 valve - exhausts on power failure 750 scim supply valve, 750 scim (12.29 liters) exhaust
- 2GFS** - 2 valve - exhausts on power failure 750 scim supply valve, 750 scim (12.29 liters) exhaust, w/ gauge

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

SPECIFICATIONS

ELECTRICAL REQUIREMENTS

Power Supply:

Supply Voltage 24 VAC (+/-10%), 50 or 60 Hz, 24 VDC (+10%/- 5%)
 Supply Current 50 mA, 150 mA (3.6 VA) on pressure excursions (standard model), 180 mA (4.3 VA) on pressure excursions (fail-safe model).

Digital Input:

Relay contact closure, transistor or TRIAC 9-24 VAC/VDC signal trigger level, impedance 750 ohms nominal.

Rates of Change:

Version # 1	Version # 2
45 seconds, 90 seconds	30 seconds, 6 minutes
1 minute, 2 minutes	3 minutes, 8 minutes

Other rates of change can be ordered.

Override Switch:

24 VDC/VAC @ 1A maximum, N.O. in AUTO operation
 (Optional: N.O. in MAN operation)

Feedback Output:

Feedback Signal Range: 0-5 VDC = Output Span

MECHANICAL REQUIREMENTS

Air Supply:

Supply Pressure Maximum 28 psig (193.06 kPa), minimum 22 psig (151.69 kPa).
 Air Consumption See *Ordering Information*.
 Output Pressure Range 0-10 psig (0-69 kPa), 0-15 psig (0-103 kPa) or 0-20 psig (138 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 or 6.895 kPa).

Air Flow

Supply valves @ 20 psig (138 kPa) main/15 psig (103 kPa) out, 750 scim. Branch Line requires 2 in³ or 33.78 cm³ (minimum). **FS model requires a minimum of 25 feet 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

Up to one 14 AWG wire.

Terminal Type

90° plug-in terminal blocks with 5mm pin spacing (optional fixed 45°, captive screw with moving clamp design).

Pneumatic Fitting

Removable brass barbed fittings for Main and Branch in machined aluminum manifold with black anodized finish (blue for FS model).
 Plugged 1/8-27-FNPT gauge port. Gauge installed at additional cost.
 1/4" O.D. nominal polyethylene.

Pneumatic Tubing Size/Type

Dimensions

4.0"L (10.16 cm) x 3.450"W (8.763cm) x 1.875"H (4.7625cm)

Shipping Weight

EFP-7.1oz.(187g), EFP2-9.0 oz.(237.15g), EFP2FS-8.9 oz.(234.5g).

Mounting

Snap track pre-punched for optional DRC DIN rail mounting kit.

ENVIRONMENTAL REQUIREMENTS

Operating Temperature Range

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