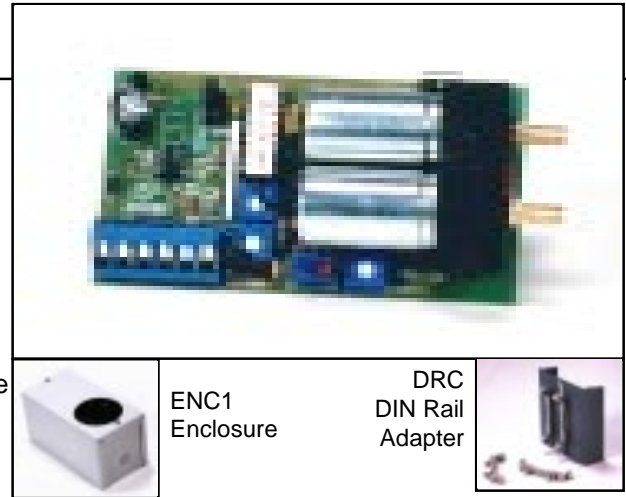


## FEATURES:

- Direct or Reverse Acting
- Accepts contact closure, transistor, or triac inputs
- Field Selectable Input Pulse Ranges, plus Phase Cut and 0-10 second window PWM
- Field adjustable min/max pressure output
- Adjustable Manual Override
- Anodized aluminum manifold with gauge port, blue manifold for fail safe (FS) model
- Closed Loop Control, 1% accuracy at room temperature
- LED Status indicator for power
- Branch pressure feedback signal



## APPLICATIONS

- VAV Damper Motor Control
- Any Pneumatic Actuator Control
- DDC Retrofit

## PRODUCT DESCRIPTION:

The PWP\*.3 converts a pulse, phase cut, or digital PWM signal into a proportional pneumatic signal ranging from 0-15 psig. The pneumatic output is proportional to the signal input, either direct or reverse acting. The PWP\*.3 has an adjustable manual override potentiometer to INCREASE or DECREASE the pneumatic output and an LED for power and signal status indication. An unlit LED indicates no power to the PWP\*.3, slow blink indicates power but no signal detected, and fast blink indicates a signal being received. Standard output is 15 psig (up to 20 with special calibration) and has 255 steps of resolution.

The PWP0.3 is a single valve version that has no restrictor and does not bleed or exhaust air. Its operation depends on its branch line consuming between 14 and 73 scim. The PWP1.2, 5.3, and 7.3 are bleed types, with branch exhaust response times determined by orifice size and pressure differentials. The PWP2.3 and PWP2.3FS incorporate

two valves and are not constant bleed interfaces. Their branch exhaust flow and response time are similar to its load rate.

The PWP\*.3 maintains the last commanded pneumatic pressure by nature of its closed loop electronic design, regardless of branch line leaks. If power fails to the PWP2.3, branch line pressure remains constant if the branch line does not leak air. **FAIL-SAFE:** The **PWP2.3FS** (fail-safe) N.O. exhaust valve allows exhaust of branch air on power failure, and the PWP1, 5, or 7.3 will continue to bleed through the orifice until branch pressure is zero psig. The output will not "wraparound" if the pulse length exceeds the maximum of the range selected. The PWP\*.3 has a branch line feedback signal of 0-5 VDC, which the controller can use to monitor the branch line pressure.

The input can be a relay contact closure, transistor, triac, phase cut, or 0-10 second Duty Cycle Pulse measured within a 10 second window.

## ORDERING INFORMATION

Specify: **PWP** \_\_\_\_\_ Version \_\_\_\_ #1, 2, 3, or 4. (See "Input" on page 2) with \_\_\_\_\_ ENC1?

\_\_\_\_\_ OUTPUT PRESSURE 0-15 psig or specify special calibration up to 20 psig.

\_\_\_\_\_ G - with 0-30 psi gauge

|  |  |
|--|--|
| <b>2.3FS</b> - 2 valve - exhausts on power failure | 750 scim supply valve, 750 scim exhaust        |
| <b>0.3</b> - 1 valve - no bleed                    | No air consumption - requires downstream bleed |
| <b>1.3</b> - 1 valve - .010" bleed orifice         | 73 scims +/-5%                                 |
| <b>2.3</b> - 2 valve - maintains branch pressure   | 750 scim supply valve, 750 scim exhaust        |
| <b>5.3</b> - 1 valve - .005" bleed orifice         | 14 scims +/-5%                                 |
| <b>7.3</b> - 1 valve - .007" bleed orifice         | 41 scims +/-5%                                 |

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

## SPECIFICATIONS

---

### ELECTRICAL REQUIREMENTS

#### *Power Supply:*

Supply Voltage

24 VDC (+10%/- 5%) or 24 VAC (+/-10%)

Supply Current

50 mA, 150 mA on excursions (standard model), 200 mA on excursions (failsafe model)

#### *Input:*

Pulse Source

Relay contact closure, triac, or transistor (solid state relay)

Pulse Trigger Level/Impedance

9 to 24 VAC or VDC/750ohms +/-10%

Off Time Between Pulses

10 milliseconds minimum

Pulse Duration/Resolution

Selectable ranges, Direct Acting (D.A.) or Reverse Acting (R.A.):

Version #1

In seconds of relay contact closure, triac or transistor (solid state relay), 255 steps of resolution.

0.01 to 10 seconds in 0.1 second increments

0.02 to 5 seconds in 0.02 second increments

0.1 to 25 seconds in 0.1 second increments

0.59 to 2.93 seconds in 0.01 second increments

Version #2

.023 to 6 seconds

0 to 10 second Duty Cycle Pulse

Version #3

0 to 20V Staefa™ Phase Cut

Version #4

Same as Version #1 except reverse acting

#### *Feedback Output:*

Feedback Signal Range:

0-5 VDC = Output Span (psig)

### MECHANICAL REQUIREMENTS

#### *Air Supply:*

Supply Pressure

Maximum 25 psig, minimum 20 psig

Air Consumption

See chart under Ordering Information

Output Pressure Range (D.A. or R.A.)

0-15 psig or specify special calibration up to 20 psig

Accuracy

1% full scale at room temperature.

2% full scale across operating temperature range.

Air Flow

Supply valves @ 20 psig (138 kPa) main/15 psig (103 kPa) out, 750 scim. Branch Line requires 2 cubic inches (minimum).

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 two 18 AWG wires

Terminal Type

45°, Captive screw with cage clamp in nickel plated copper alloy

Pneumatic Fitting

Removable brass barbed fittings for Main and Branch tubing mounted in machined aluminum manifold with black anodized finish (blue anodized manifold for FS model). Supplied w/plugged 1/8-27-FNPT gauge port. Gauge installed at additional cost

Pneumatic Tubing Size/Type

1/4" O.D. nominal polyethylene

#### *Dimensions*

4.0"L x 2.175"W x 1.5"H (mounted in snaptrack)

#### *Shipping Weight*

7.1oz. - PWP0.3, 1.3, 5.3, and 7.3

9.0 oz.- PWP2.3 and 8.9 oz. for PWP2.3FS

#### *Mounting*

Furnished with 2.25" wide x 4.0" length of snaptrack (ENC1 Optional)

### ENVIRONMENTAL REQUIREMENTS

*Operating Temperature Range*

32 to 120 deg F

*Storage Temperature Range*

-20 to 150 deg F

*Operating Humidity Range*

5 to 95% non-condensing

**Specifications may change without notice to improve performance or functionality.**

*If you have a different application or need, please call toll free 1-800-886-2281 and discuss your needs with our Sales Engineers.*