



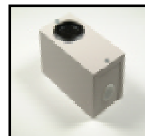
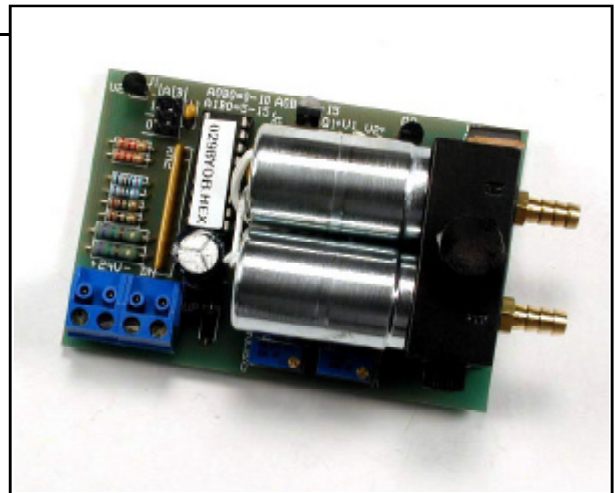
## Floating Point to Modulated Pressure Output (Closed Loop) with Power Brown-Out Reset

### FEATURES:

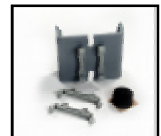
- Closed Loop Control
- Brown-out detection reset circuitry
- Accepts two relay contact closures, transistor, or triac inputs (operates on 50 or 60 Hz-see below)
- Brass barbed tubing fittings mounted in anodized machined aluminum manifold
- Maintains branch line pressure on power outage
- Field selectable output to accommodate actuator spring range
- Dual valves for high airflow rates
- Gauge port

### APPLICATIONS

- Pneumatic Damper Motor Control
- Pneumatic Valve Actuator Control
- Compressor Staging
- Electric Control of any Pneumatic Actuator



ENC1  
Enclosure



DRC  
DIN Rail  
Adapter

### PRODUCT DESCRIPTION:

The PTS4.1 converts two digital (increase/decrease) signals (relay contact closure, transistor or triac) into a proportional pneumatic signal of 0-10, 5-15 or 0-15 psig or 0-69, 34-103, or 0-103 kPa (jumper selectable). The pneumatic output increases when the UP input is on, or decreases when the DOWN input is on. The pneumatic output changes full scale (from minimum to maximum) in 90 seconds, with 255 steps of resolution.

The PTS4.1's closed loop electronic design will maintain the last commanded pneumatic pressure. An on-board microprocessor measures the signal input, and a solid-state pressure transducer measures branch line pressure. The PTS4.1 uses these two values to automatically increase or decrease

branch line air pressure. In the event of a power failure, both PTS4.1 valves close, shutting off main air and branch line bleed.

If a power brown-out occurs, the PTS4.1 automatically reboots (resets) its on-board processor. During a power brown-out, power to the processor on the PTS4.1 is shut down (pressure output remains same). When proper power level is restored, processor automatically powers up, and branch pressure output defaults to 0 psig.

The PTS4.1's anodized aluminum air manifold has brass barbed fittings (removable) for connection to 1/4" O.D. (1/8" I.D.) polyethylene tubing and a 1/8" FNPT threaded port for a pressure gauge.

### ORDERING INFORMATION

Order **PTS4.1** \_\_\_\_\_ with \_\_\_\_\_ **ENC1 Enclosure?**  
 G - 0-30 psi gauge installed

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

### SPECIFICATIONS

#### ELECTRICAL REQUIREMENTS

##### Power Supply:

Supply Voltage: 24 VAC (+/-10%) at PTS4.1 terminals. 50 or 60 Hz  
 Power Consumption: 150 mA (3.6 VA)

*Digital Input:*

Types:	Two (2) relay contact closures, transistors or TRIACs
Signal trigger level	9-24 VAC
Input impedance:	750 ohms
Rate of Change:	90 Seconds

**MECHANICAL REQUIREMENTS**

---

*Air Supply:*

Supply Pressure:	25 psig (172 kPa) maximum supply pressure, 20 psig (138kPa) minimum.
Output pressure range	0-10, 5-15, or 0-15 psig (0-69, 34-103, or 0-103 kPa) jumper selectable.
Accuracy:	2% @ room temperature, 3% @ full range of operating temperature
Branch Line Capacity:	2 cubic inches (32.7 cubic centimeters) minimum volume on branch
Air Flow:	Supply valves @ 20 psig (138 kPa) main/15 psig (103 kPa) out, 750 scim
Filtering:	Furnished with integral-in-barb 80-100 micron filter (Part # PN004) Optional: standard brass barb (PN002) with external 5 micron in-line filter (PN021). Specify when ordering.

*Connections:*

Wire Size	Up to one (1) 14 AWG wire per termination.
Terminal Type	Plug-in terminal strip, plugs on four (4) square 5mm pins, captive screw with cage clamp in tin plated brass
Pneumatic Fitting	Machined aluminum manifold with black anodized finish, removable 10-32 brass barbed fittings for 1/4" O.D. tubing on Main and Branch connections, and a plugged 1/8" -27 FNPT gauge port.
Pneumatic Tubing	1/4" O.D. (1/8" I.D.) polyethylene

*Dimensions*

Overall Dimensions Mounted in Snap Track	3.75" L X 2.375" W X 1.875" H or 9.525 cm L X 6.0325 cm W X 4.7625 cm H (3.125" or 7.9375 cm H with gauge) .
--	--

*Weight*

9 oz. (.25 Kg) with no gauge.

*Mounting*

Furnished with 2.375" L (8.25 cm) of 2.25" (5.7 cm) snaptrack (ENC1 optional)

**ENVIRONMENTAL REQUIREMENTS**

Operating Temperature Range	32° to 120° F (0° to 49° C)
Storage Temperature Range	-20° to 150° F (-29° to 66° C)
Operating Humidity Range	5 to 95% non-condensing

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

**Call for Other Calibration Ranges and Versions.**

*If you have a different application or need, please call 1-800-886-2281 or 317-337-0100 and discuss your needs with our Sales Engineers.*

