

PTS4.1



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
- 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



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 guage 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 (no accessories

required)

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 guage.

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.

EU Commission Directive 2002/95/EC (RoHS) Compliant

Call for Other Calibration Ranges and Versions.

If you have a different application or need, please call 1-888-967-5224 and discuss your needs with our Sales Engineers.