# Electronic to Pneumatic Transducer

The CP-8511 transducer receives a variable electronic input signal and produces a 3 to 15 psig (21 to 103 kPa) pneumatic output signal to position pneumatic damper and valve actuators in HVAC systems.

Features:

- Durable enclosure with easily accessible wiring terminations.
- Panel or DIN rail mounting for quick, snap-on installation.
- High accuracy with low hysteresis.
- Long-term driftless operation with high repeatability.
- Low air consumption and large air flow capacity.
- Field selectable input ranges.
- Integral +20 Vdc power output for auxiliary components.
- Factory installed branch pressure gauge
- Integral auto/manual override feature with indication.
- BAS indication of auto/manual override.
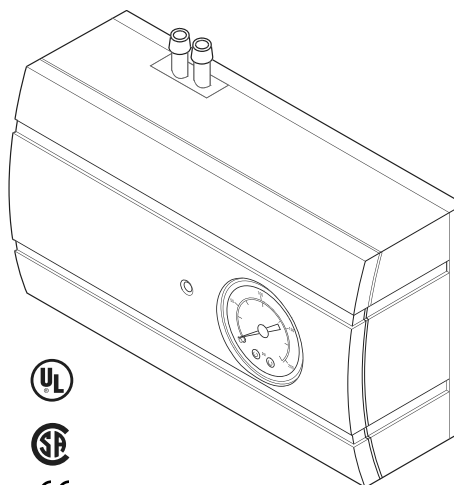
Model Chart

Model No.[a]	Field Selectable Input Range	Input Impedance Ohms	Output Range	Field Selectable Action[b]	Power Requirements
CP-8511-024	4 to 20 mA[c]	250	3 to 15 psig[d] (21 to 103 kPa)	D.A. or R.A.	20 to 30 Vac, 24 to 30 Vdc, 3.8 W
	1 to 5 mA	1000			
	6 to 9 V	> 10,000			
	1 to 5 V				
	0 to 10 V				
	1 to 11 V				
	2 to 10 V				

[a] CAUTION: This product contains a half-wave rectifier power supply and must not be powered off transformers used to power other devices utilizing non-isolated full-wave rectifier power supplies. Refer to EN206 F-26363.

[b] D.A. = Direct acting, branch pressure rises as input increases.
R.A. = Reverse acting, branch pressure falls as input increases.

[c] Factory configured as 4 to 20 mAdc.

[d] A maximum of 18 psig output is available when the zero potentiometer is increased to 6 psig.

Specifications

Inputs	Refer to Model Chart.
Adjustments	
Calibration	Potentiometer for adjusting mid-range branch pressure.
Action	By pin selection, refer to Model Chart.
Power requirements	Refer to Model Chart.
Power supply	Requires 20 to 30 Vac, 50/60 Hz, or 24 to 30 Vdc power supply, 3.8 watts maximum.
Rectifier type	Half wave, not isolated.
Air supply required	20 psig (138 kPa) nominal, 30 psig (207 kPa) maximum. Clean, dry, oil free air required (reference EN-123, F-22516).

Specifications (Continued)

Air consumption for sizing air compressor	Maximum 0.012 scfm (5.66 ml/s).
Air capacity for sizing air mains	550 scim (150.24 ml/s).
Air connections	Male barbed fittings for flexible 1/4" O.D. pneumatic tubing.
Wiring connections	Screw terminals for use with 16 to 22 AWG wire.
Outputs	3 to 15 psig (21 to 103 kPa).
Maximum pneumatic output	1 to 18 psig (7 to 124 kPa).
Action	Refer to Model Chart.
Output air capacity & pressure	515 scim (141 mL/s) with a 20 psig (138 kPa) supply.
Operating characteristics	
Linearity	±1% of span @ 75°F (24°C).
Hysteresis	0.75% of span @ 75°F (24°C).
Adjustments	Field adjustable zero potentiometer.
Auxiliary power supply	+20 Vdc @ 50 mA (maximum).
Auto/manual feedback	Isolated open collector output transistor.
Auto/manual status	Green LED.
Pressure gauge accuracy	Within 2% of total scale range in middle portion of scale and 3% elsewhere (ANSI Class B).
Environment	
Ambient temperature limits	Shipping and storage: -40 to 160°F (-40 to 71°C). Operating: 32 to 140°F (0 to 60°C).
Humidity	5 to 95% RH, non-condensing.
Locations	NEMA Type 1.
Mounting	Upright position. Unit is provided with section of plastic track for panel mounting. AD-8912 enclosure can be ordered separately for remote installations.
Dimensions	4-1/4 H x 5 W x 2-5/32 D in. (108 x 127 x 55 mm).
Agency Listings	
UL	UL-873, Underwriters Laboratories.
European Community	EMC Directive (89/336/EEC). Emissions (EN50081-1). Immunity (EN61000-6-2).
CSA	Canadian Standards C22.2 No. 24-93.
General Instructions	Refer to F-26205.

Accessories

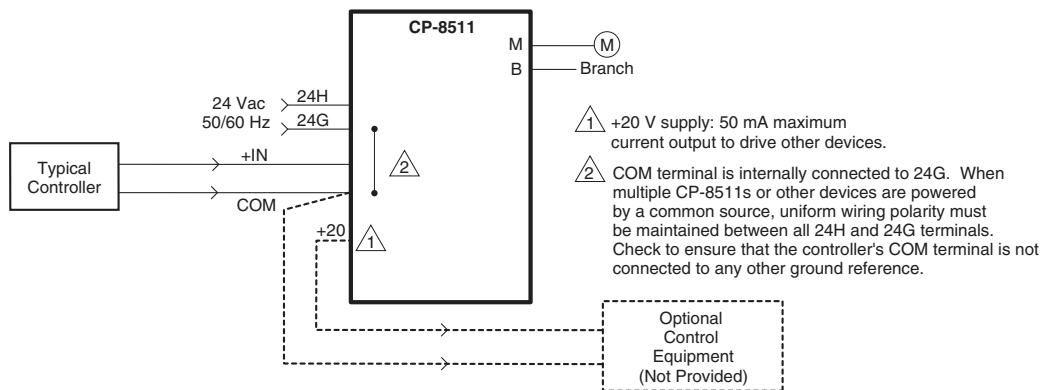| Model No.	Description
K-335	In-line air filter.
P-610	35 mm DIN rail (1-3/8 W x 36 L x 3/10 H in.).

Typical Applications

Figure 1 Typical CP-8511 Wiring with Optional +20 Vdc Supply.