

EP-8000 Series

Electro-Pneumatic Transducer



Description

The EP-8000 Electro-Pneumatic Transducer converts a 0 to 10 VDC or 4 to 20 mA signal from an electric controller into a proportional pneumatic output pressure signal. Four models are available, which are grouped into two basic versions: low-volume output units (non-relay) and high-volume output units (relay).

Features

- hypodermic needle test point allows easy output pressure signal measurement
- barbed air connections for 5/32 or 1/4 in. O.D. polytubing
- compact, simple design for ease of installation on a wide range of mounting surfaces, including direct mounting on pneumatic valve actuators
- factory set, fully adjustable zero and span facilitates field calibration

Applications

- typically used with pneumatic valve or damper actuators
- sequencing can be provided through a Johnson Controls V-9502 Valve Actuator Positioner or D-9502 Damper Actuator Positioner

Repair Parts

Replace unit.

To Order

Specify the code number from the following selection chart.

Selection Chart

Code Number	Description			
	Output	Input	Input Range	Factory Output Range psig (kPa)
EP-8000-1	Low Volume (Non-Relay)	Voltage	0.5 to 9 VDC	1 to 18 (7 to 126)
EP-8000-2	High Volume (Relay)	Voltage	0.25 to 9.5 VDC	0.5 to 19 (3.5 to 133)
EP-8000-3	Low Volume (Non-Relay)	Current	4 to 20 mA DC	3 to 15 (21 to 105)
EP-8000-4	High Volume (Relay)	Current	4 to 20 mA DC	3 to 15 (21 to 105)

Accessories

Code Number	Description
R-3710 Series	0.007 in. Restrictor (Required for Low-Volume Models)
EP-8000-101	Electro-Pneumatic Transducer Mounting Kit (For Mounting the EP-8000 to a Pneumatic Valve Actuator)
A-4000-137	In-line Filter (Required for All Models)
A-4000-1037	In-line Filter (Required for all Models; package of 5)
JC-5361	Hypodermic Needle Test Probe Assembly
G-2010 Series	0 to 30 psig (0 to 210 kPa) gauge

Note: Low-volume models are one-pipe instruments requiring a 0.007 in. (0.017 mm) R-3710 Series restrictor, ordered separately.

Specifications

EP-8000 Electro-Pneumatic Transducer	
Action	Proportional — Direct Acting
Supply Pressure	18 to 25 psig (126 to 175 kPa); nominal 20 psig (140 kPa); air supply must be clean, dry, and oil-free
Supply Pressure Sensitivity	0.3 psig/psig (0.3 kPa/kPa)
Adjustments	Voltage Models 20 VDC maximum input; span adjustable from 7.5 VDC to 15 VDC; factory-set at approximately 10 VDC
	Current Models 30 mA DC maximum input; span adjustable from 10 to 20 mA DC; factory-set at approximately 16 mA DC
	All Models Output can be shifted ± 9 psig (± 63 kPa) using zero adjustment screw
Linearity	5% maximum of output span between 3 to 15 psig (21 to 103 kPa)
Hysteresis	0.5 psig (1.4 kPa) typical
Temperature Coefficient	0.05 psig/°F (0.64 kPa/°C)
Input Impedance	Voltage Models 1,000 ohms minimum
	Current Models 350 ohms maximum
Air Flow Capacity at 20 psig Supply	Low Volume Models 45 SCIM (12.3 mL/s) maximum ^(a)
	High Volume Models 1600 SCIM (437 mL/s) maximum
Air Consumption	Low Volume Models 45 SCIM (12.3 mL/s) maximum ^(a)
	High Volume Models 45 SCIM (12.3 mL/s) maximum
Electrical Connections	2-wire terminal block for 18 AWG stranded wire
Air Connections	Barbed fittings for 5/32 or 1/4 in. O.D. polytubing
Materials	Body polysulphone
	Case & Cover UL 94 V-O rated ABS/Polycarbonate
	Enclosure Protection IP 42 according to DIN 40 050 and IEC 144
	Air Connections Brass
Ambient Operating Limits	Temperature 41 to 122°F (5 to 50°C)
	Humidity 10 to 90% RH, non-condensing
Ambient Storage Temperature Limits	-4 to 140°F (-20 to 60°C)
Mounting	Surface-mounted or installed on pneumatic valve or damper actuator using accessory mounting kit

(a) This value is specified for dead-ended loads or with controlled devices/applications with a maximum air consumption of 10 SCIM (2.7 mL/s).