XEC-3001/3004

E/I-P Transducer

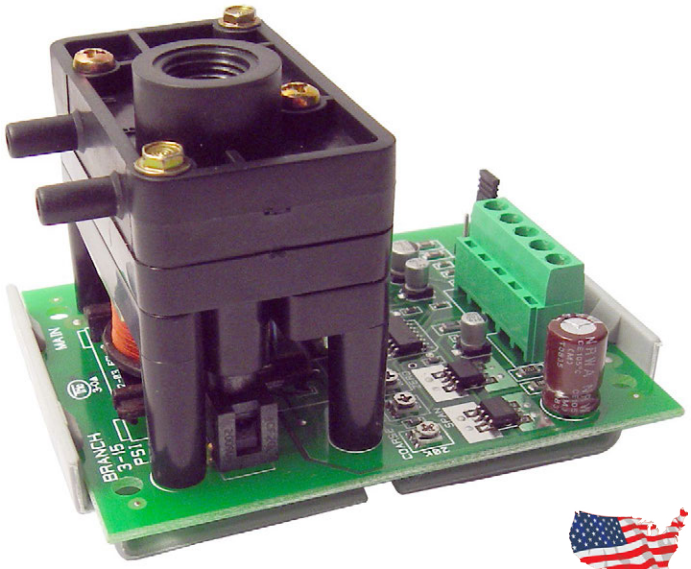
Description and Application

These transducers are used in HVAC systems to provide an accurate signal for positioning damper and valve actuators based on branch line pressure. They convert an analog voltage (E) or current (I) signal into a linear pneumatic (P) output signal for accurate positioning of damper and valve actuators used in HVAC systems.

They are not position sensitive devices and can be mounted vertically or horizontally. They provide a direct output feedback signal for branch line pressure.

They can be powered by either 24 VAC or 24 VDC, and have three selectable input ranges. The analog signal may be either 1 to 5 VDC, 2 to 10 VDC, or 4 to 20 mA, which provides a 3 to 15 psi linear pneumatic output signal. A 1 to 5 VDC output feedback signal, proportional and linear to the 3 to 15 psi output signal, is provided. A gauge tap is also provided for pressure output indication. Standard 3.25" Snap Track is supplied for mounting.

The XEC-3004 (only) also has a manual override that may be initiated by moving a jumper and adjusting a potentiometer.



Still . . . Made in the U.S.A.

Features

- A direct output feedback signal for branch line pressure
- Can be powered from 24 VAC or 24 VDC sources
- Three user-selectable input ranges available
- Gauge tap is provided for pressure output indication
- Optional manual override on XEC-3004 (only)

Models

XEC-3001	Module with**out** manual override
XEC-3004	Module with manual override

Accessories

HFO-0006	In-line air filter
ICI-1005	2", 0–30 psi gauge

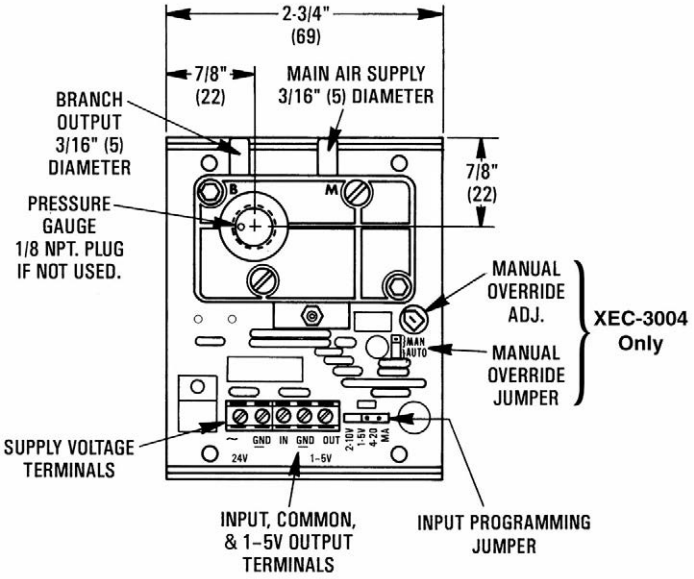
For **other pneumatic accessories**, such as connectors, tubing, fittings, filters, and gauges, see the Compressed Air Accessories section in the KMC Controls Catalog (SP-071).

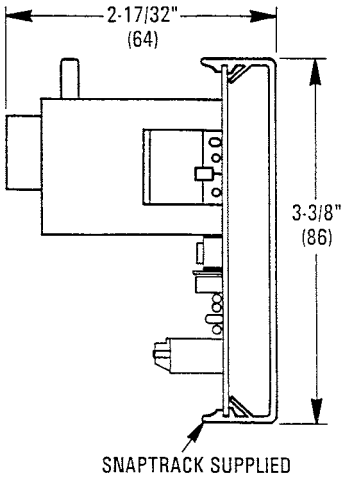
Specifications

Supply Voltage	24 VAC (+20%/–15%), Class 2 only, 1 VA; or 24 VDC (+66%/–8%), 50 mA
Input Signals	1 to 5 VDC, 2 to 10 VDC, or 4 to 20 mA
Input Resistance	
1 to 5 VDC	100K ohms
2 to 10 VDC	200K ohms
4 to 20 mA	250 ohms
Output Signal	3 to 15 psi (21 to 103 kPa)
Output Capacity	200 scim (55 mL/s)
Main Air	
Supply	20 psi nominal (138 kPa) 30 psi maximum (207 kPa)
Consumption	28.8 scim (7.9 mL/s) @ 20 psi supply (138 kPa)
Manual Override	Jumper selectable with potentiometer adj. for 3 to 15 psi output (XEC-3004 only)
Mounting	2.75" (70 mm) section of 3.25" (83 mm) Snap Track supplied for panel mounting and will fit 2.75" (70 mm) Snap Track for horizontal mounting (position insensitive)
Material	
Plastic	Glass-filled nylon, ABS
Diaphragms	Neoprene
Weight	5.5 ounces (155 grams)
Operating Characteristics	
Linearity	1% full scale
Hysteresis & repeatability	0.75% full scale
Connections	
Wiring	Screw terminals for 14–22 AWG, copper
Air	3/16" (5 mm) nipple for 1/4" (6 mm) OD polyethylene tubing. 1/8" (3 mm) female NPT for branch pressure gauge
Temperature Limits	
Operating	40 to 120° F (4 to 49° C)
Shipping	–40 to 140° F (–40 to 60° C)
Humidity	Non-condensing

Dimensions and Connectors

All dimensions are in inches (mm).





⚠ CAUTION

Pneumatic devices must be supplied with clean, dry control air. Any other medium (e.g., oil or moisture contamination) will cause the device to fail.

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