

XEC-3001/3004 E to P transducer



XEC-3011 P to E transducer

Description and Application

XEC-3001 and XEC-3004 model 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.

XEC-3001 and XEC-3004 models have three selectable input ranges, 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.

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

The XEC-3011 model transducer is used to sense the 3 to 15 psi pneumatic branch line pressure signal to an actuator. It provides a proportional and linear 1 to 5 VDC output signal.

All models can be powered by either 24 VAC or 24 VDC. They are not position sensitive devices and can be mounted vertically or horizontally. Standard 3.25" Snap Track is supplied for mounting.

Features

- ◆ A direct output feedback signal for branch line pressure (all models)
- ◆ Can be powered from 24 VAC or 24 VDC sources (all models)
- ◆ Three user-selectable input ranges available on XEC-3001/3004 models
- ◆ Gauge tap is provided on XEC-3001/3004 models for pressure output indication
- ◆ Optional manual override on XEC-3004 model

Models

XEC-3001	E to P module without manual override
XEC-3004	E to P module with manual override
XEC-3011	P to E module

Accessories

HFO-0006	In-line air filter
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For **other accessories**, such as connectors, tubing, fittings, and filters, see the [pneumatic accessories](#) page on the KMC Controls website.

▲ 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.

Specifications

Supply Voltage 24 VAC (+20%/–15%), Class 2 only, 1 VA;
or 24 VDC (+66%/–8%), 50 mA

Input Signals

XEC-3001/3004 1 to 5 VDC, 2 to 10 VDC,
or 4 to 20 mA

XEC-3011 3 to 15 psi (21 to 103 kPa)

Input Resistance (XEC-3001/3004)

1 to 5 VDC 100K ohms

2 to 10 VDC 200K ohms

4 to 20 mA 250 ohms

Output Signals

XEC-3001/3004 3 to 15 psi (21 to 103 kPa)

XEC-3011 1 to 5 VDC

Output Capacity (XEC-3001/4) 200 scim (55 mL/s)

Main Air (XEC-3001/3004)

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" (51 mm) section of 3.25" (83 mm) Snap Track is supplied. Also fits 2.75" (70 mm) Snap Track (position insensitive).

Material

Plastic Glass-filled nylon, ABS

Diaphragms Neoprene

Weight 5.5 oz (155 g); 1.3 oz (38 g)

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) fitting for 1/4" (6 mm) OD polyethylene tubing (all). 1/8" (3 mm) female NPT (XEC-3001/3004 only)

Temperature Limits

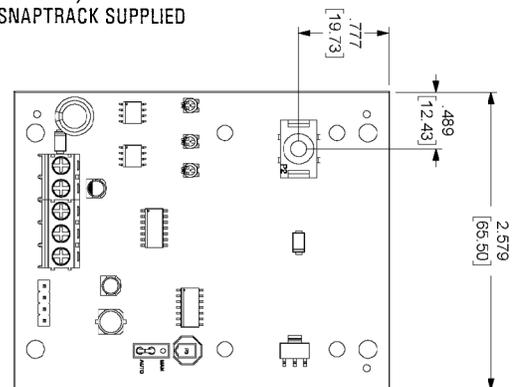
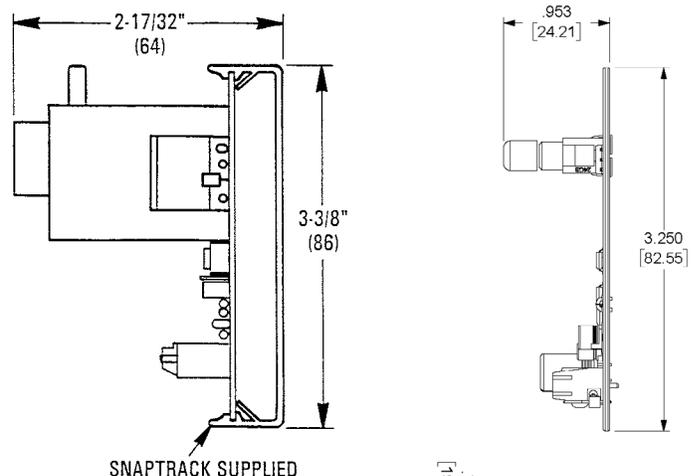
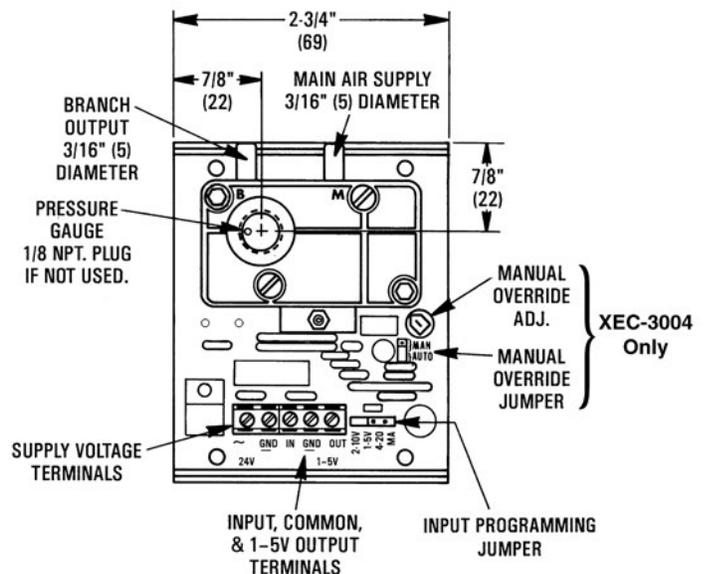
Operating 40 to 120° F (4 to 49° C)

Shipping –40 to 140° F (–40 to 60° C)

Humidity Non-condensing

Dimensions and Connectors

All dimensions are in inches (mm).



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