



EP2

# EP2 Series

## Electropneumatic Transducer

### Product Overview

The EP2 electropneumatic pressure transducer uses micro-controlled poppet valve technology for highly accurate pressure sensing. The poppet valves consume no air, eliminating unnecessary air losses in the system and allowing for stable and reliable operation. The EP2 comes installed on standard SnapTrack, and an optional cover is available to protect from dust and other environmental factors. An LCD display and LED indicators make it easy to read system status at a glance.



### NOTICE

- This product is not intended for life or safety applications.
- Do not install this product in hazardous or classified locations.
- Read and understand the instructions before installing this product.
- Turn off all power supplying equipment before working on it.
- The installer is responsible for conformance to all applicable codes.

If this product is used in a manner not specified by the manufacturer, the protection provided by the product may be impaired. No responsibility is assumed by the manufacturer for any consequences arising out of the use of this material.

\*CE mark applies to models with cover only.

### Product Identification

	Output	Feedback	Failsafe	Option
EP2	<input checked="" type="checkbox"/> 1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	= Selectable 3-15/0-20 psi	0 = None 1 = Pressure Loss Alarm 2 = Manual Mode Alarm	0 = None 1 = Vent on Power Fail	Blank = none 2 = EP Cover Plate

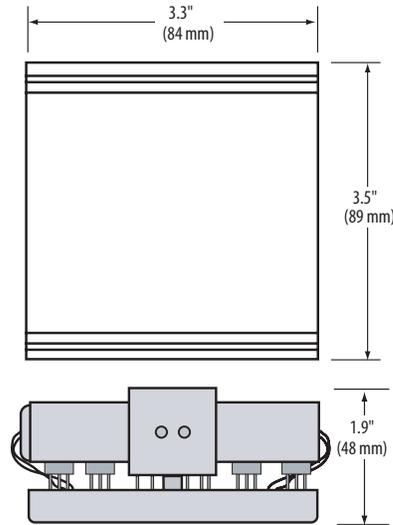
### Specifications

<b>Power Supply</b>	Class 2, 22 to 30 Vdc, 20 to 30 Vac, 47 to 63 Hz, 150 mA max.
<b>Control Input</b>	4 to 20 mA, 0 to 10 V, 0 to 5 V; jumper selectable
<b>Input Impedance</b>	4 to 20 mA, 250 Ω; 0 to 5/0 to 10V, 10 kΩ
<b>Manual Override</b>	Jumper selectable mode, digital pushbutton adjust
<b>Alarm Contact</b>	100 mA@30 Vac/dc (If equipped)
<b>Accuracy</b>	1% full scale; combined linearity, hysteresis, repeatability
<b>Compensated Temperature Range</b>	-4 to 60 °C (25 to 140 °F)
<b>Temp Coefficient</b>	±0.05%/°C
<b>Operating Environment</b>	10 to 90% RH, non-condensing; -4 to 60 °C (25 to 140 °F)
<b>SCIM</b>	523 in <sup>3</sup> /min.@45 psi; 8520 cm <sup>3</sup> /min@310.3 kPa; 333 in <sup>3</sup> /min@20 psi; 5407 cm <sup>3</sup> /min@137.9 kPa
<b>Supply Pressure</b>	45 psig max
<b>Control Range</b>	0 to 20 psig or 3 to 15 psig jumper selectable
<b>Pressure Differential</b>	0.1 psig (supply to branch)
<b>Pressure Indication</b>	Electronic, 3-1/2 digit LCD
<b>Minimum Tubing Length</b>	15 feet*
<b>Port Connection</b>	1/8-in. i.d. poly tubing
<b>Media Connection</b>	Clean dry air or inert gas. Not for use with oxygen service.
<b>WARRANTY</b>	
<b>Limited Warranty</b>	5 years
<b>COMPLIANCE INFORMATION</b>	
<b>Agency Approvals</b>	EMC Conformance*: EN 61000-6-3:2007 and A1:2011 Class B, EN 61000-6-1:2007

\*For shorter tubing runs use AA45 Pneumatic Capacitor.

\*\*EMC Special Note: Connect this product to a DC distribution network or an AC/DC power adaptor with proper surge protection (EN 61000-6-1:2007 specification requirements)

## Dimensions



## Installation



Observe precautions for handling static sensitive devices to avoid damage to the circuitry that is not covered under the factory warranty.

1. Mount the transducer using the screws provided. Avoid damaging the electronic components.
2. Wire the transducer and configure the jumpers for desired operation as shown in the Wiring and Configuration section below.
3. Attach pressure tubing to the hose barb. Observe MAIN and BRANCH port labels. Use flexible 1/4" O.D. poly tubing for the main and branch pneumatic connections. Main supply pressure must not exceed 45 psig.

## Wiring & Configuration

### Jumper Configuration

Input	Current (4 to 20 mA) or Voltage (0 to 5 V or 0 to 10 V)
Voltage	For voltage mode of operation, select 0 to 5 V or 0 to 10 V
Pressure Range	Select 0 to 20 psi or 3 to 15 psi scaling
Operation Mode	Select AUTO for normal operation or MANUAL to adjust pressure using the pushbuttons

### Options

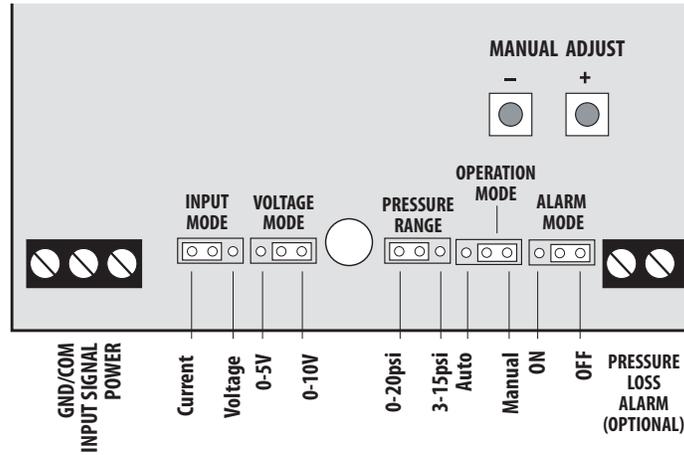
Alarm Mode Relay	The alarm contacts open if the EP2 cannot obtain 80% of commanded pressure within two (2) minutes
Manual Mode Alarm	Contacts open when manual mode is selected (auto mode contacts are closed)
Vent On Power Fail	The EP2 vents the branch line pressure on power failure

### Terminal Block Connections

GND/Common	Power supply ground and signal common.
Input Signal	4 to 20 mA, 0 to 10 Vdc, or 0 to 5 Vdc input from the control system.
Power	22 to 30 Vdc, 20 to 30 Vac. From the control system or external power supply or transformer.
Pressure Loss Alarm (optional)	Normally closed, solid-state contacts open if the main supply pressure fails or if the transducer is otherwise unable to produce the correct branch pressure. Connect to the digital input of the control system for alarm status indication. If commanded pressure does not reach 80% within 2 minutes, the alarm contacts open. <ul style="list-style-type: none"> <li>• 0 to 20 psi alarm contact does not change state when the commanded pressure is 4 psi or less</li> <li>• 3 to 15 psi alarm contact does not change state when the commanded pressure is 5.4 psi or less</li> </ul>

NOTE: In 24 Vac transformer applications, one side of the transformer secondary is connected to the signal common. Some control systems may require a dedicated power supply transformer or isolation transformer.

**Wiring & Configuration** Configuration Diagram  
(cont.)



**Wiring Diagram**

