

# EP Series

## Differential Pressure/Air Velocity Transducer



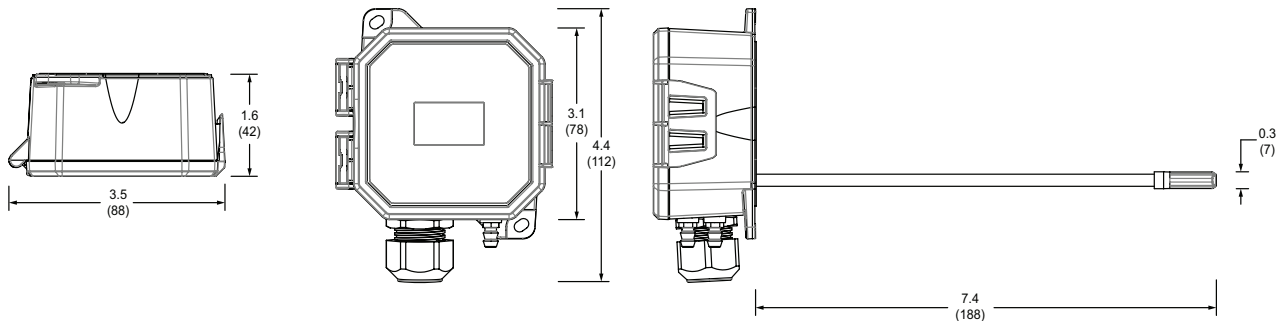
### Product Description

The EP transducer can measure either air pressure or velocity with the flip of a switch. The EP is available in three installation configurations: duct, panel or universal. Duct and panel models have two pressure and velocity options: 0-1" WC / 0-3,000 ft/min or 1-10" WC / 3,000-6,000 ft/min with four field-selectable sub-ranges. The universal model comes in one pressure/velocity range: 0-10" WC / 0-7,000 ft/min with seven field-selectable sub-ranges for pressure and eight for velocity. All variants are available with and without display. The EP has an IP65/NEMA 4 environmental rating and a 5-year limited warranty.

### Features

- High reliability sensor technology for long-term, maintenance-free operation
- Seven pressure and eight velocity sub-ranges with three selectable outputs for easy on-the-job setup
- IP65/NEMA 4 housing allows mounting in wash-down locations
- Circuit protection avoids damage due to incorrect input wiring

### Dimensions in. (mm)



### Available Products

Enclosure	Range	Local Display
EP <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
D = Duct P = Panel	301 = Pressure: 0 to 1 in. WC 0 to 250 Pa Velocity: 0 to 3000 ft/min 0 to 15 m/s	Blank = No Display LCD = LCD Display
EP <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
U = Universal	302 = Pressure: 0 to 10 in. WC 0 to 2500 Pa Velocity: 0 to 6000 ft/min 0 to 30 m/s	Blank = No Display LCD = LCD Display
EP <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	305 = Pressure: 0 to 10 in. WC 0 to 2500 Pa Velocity: 0 to 7000 ft/min 0 to 35 m/s	Blank = No Display LCD = LCD Display

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## Specifications

Media Compatibility	Dry or inert gas
Input Power	Three-wire Volt mode: 24 Vac or 12-30 Vdc*, Two-wire mA mode: 12-30 Vdc*
Output Power	Field-selectable: 2-wire, loop-powered 4-20 mA** (DC only, clipped and capped), 24 Vac/dc or 3-wire 0-5V/0-10V***
301 Pressure Range	Pressure mode: Unidirectional: 0.1/0.25/0.5/1.0 in. WC FS, switch selectable Bidirectional: $\pm 0.1/\pm 0.25/\pm 0.5/\pm 1.0$ in. WC FS, switch selectable Unidirectional: 25 Pa/50 Pa/100 Pa/250 Pa, FS, switch selectable Bidirectional: $\pm 25$ Pa/ $\pm 50$ Pa/ $\pm 100$ Pa/ $\pm 250$ Pa, FS, switch selectable Velocity mode: 500/1,000/2,000/3,000 ft/min, 2.5/5/10/15 m/s
302 Pressure Range	Pressure mode: Unidirectional: 1.0/2.5/5.0/10 in. WC FS, switch selectable Bidirectional: $\pm 1.0/\pm 2.5/\pm 5.0/\pm 10$ in. WC FS, switch selectable Unidirectional: 0.250 kPa/0.500 kPa/1.000 kPa/2.500 kPa, FS, switch selectable Bidirectional: $\pm 0.250$ kPa/ $\pm 0.500$ kPa/ $\pm 1.000$ kPa/ $\pm 2.500$ kPa, FS, switch selectable Velocity mode: 3,000/4,000/5,000/6,000 ft/min, 15/20/25/30 m/s
305 Pressure Range	Pressure mode: Unidirectional: 0.1/0.25/0.5/1.0/2.5/5/10 in. WC FS, switch selectable Bidirectional: $\pm 0.1/0.25/0.5/1.0/2.5/5/10$ in. WC FS, switch selectable Unidirectional: 25Pa/50Pa/100Pa/250Pa/0.5kPa/1kPa/2.5kPa FS, switch selectable Bidirectional: $\pm 25$ Pa/50Pa/100Pa/250Pa/0.5kPa/1kPa/2.5kPa FS, switch selectable Velocity mode: 500/1000/2000/3000/4000/5000/6000/7000 ft/min, 2.5/5/10/15/20/25/30/35 m/s
Response Time	Standard: T95 in 20 sec, Fast: T95 in 2 sec, DIP switch selectable
Mode	Unidirectional or bidirectional, DIP switch selectable
Display (Option)	Pressure mode: Signed 3-1/2 digit LCD, indicates pressure, overrange indicator Velocity mode: Signed 4-1/2 digit LCD, indicates velocity, overrange indicator
Proof Pressure	3 psid (20.6 kPa)
Burst Pressure	5 psid (34.5 kPa)
Pressure Mode Accuracy	$\pm 1\%$ FS (combined linearity and hysteresis)
Velocity Mode Accuracy	$\pm 90$ ft/min ( $\pm 0.45$ m/s) plus 5% of measured value****
Temperature Effect	1" (250 Pa) models: 0.05%/°C; 10" (2.5 kPa) models: 0.01%/°C (Relative to 25 °C) 0 to 50 °C (32 to 122 °F)
Zero Drift (1 year)	1" (250 Pa) models: 2.0% max.; 10" (2.5 kPa) models: 0.5% max.
Zero Adjust	Pushbutton auto-zero and digital input (2-position terminal block)
Operating Environment	0 to 60 °C (32 to 140 °F)
Altitude of Operation	0 to 3000 m
Pollution Degree	2
Humidity Range	100% RH, non-condensing
Mounting Location	For indoor use only.
Fittings	Brass barb; 0.24" (6.1 mm) o.d.
Limited Warranty	5 years
Environmental Rating	IP65, NEMA 4
Flammability Rating	UL 94 5VA fire retardant ABS, plenum rated

EMC Conformance: EN 61000-6-3 and A1 Class B, EN 61000-6-1.

\* Class 2/II power source.

\*\* Minimum input voltage for 4 to 20 mA operation: 250  $\Omega$  loop = 12 Vdc; 500  $\Omega$  loop = 19 Vdc.

\*\*\* Minimum load resistance for Volt operation: 5 k $\Omega$ .

\*\*\*\* For measured values between 200 and 7000 ft/min (1 and 35 m/s).

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