

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

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
	302 = Pressure: 1 to 10 in. WC 0.25 kPa to 2500 Pa Velocity: 0 to 6000 ft/min 0 to 30 m/s	
EP <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
U = Universal	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

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 Minimum input voltage for 4 to 20 mA operation: 250 Ω loop = 12 Vdc; 500 Ω loop = 19 Vdc (DC only, clipped and capped), 24 Vac/dc or 3-wire 0-5V/0-10V Minimum load resistance for Volt operation: 5 k Ω
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: ± 25 Pa/ ± 50 Pa/ ± 100 Pa/ ± 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: ± 0.250 kPa/ ± 0.500 kPa/ ± 1.000 kPa/ ± 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: ± 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	± 90 ft/min (± 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.
Suggested Cable	Shielded: Belden #9939 (22 AWG) 3-wire multi-conductor (or similar) Belden #9940 (22 AWG) 4-wire multi-conductor (or similar) Belden #9939 (22 AWG) 5-wire multi-conductor (or similar) Unshielded: Belden #8443 (22 AWG) 3-wire multi-conductor (or similar) Belden #8444 (22 AWG) 4-wire multi-conductor (or similar) Belden #8445 (22 AWG) 5-wire multi-conductor (or similar)

Specifications (cont.)

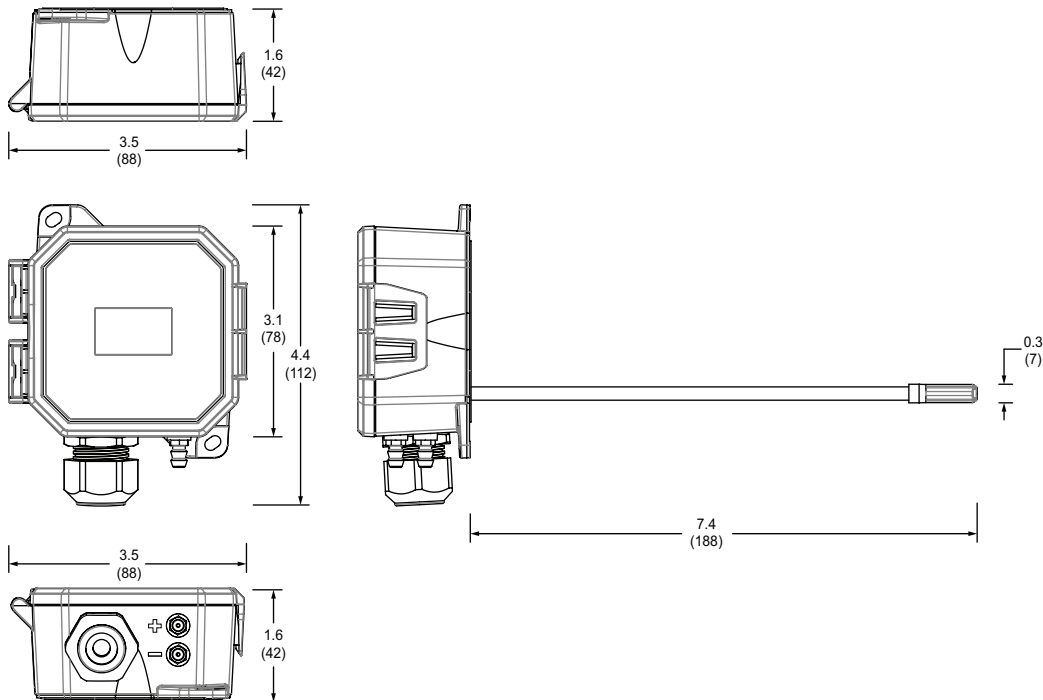
Environmental Rating	IP65, NEMA 4
Flammability Rating	UL 94 5VA fire retardant ABS, plenum rated
Limited Warranty	5 years

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

* Class 2/II power source.

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

Dimensions in. (mm)



Accessories

For velocity applications, use the Veris VFXP Series air velocity/measurement probe or Veris AA18, AA19 or AA20 velocity pitot tubes. For use with the EPP (panel) and EPU (universal) models in Velocity mode only. Sold separately.



VFXP Series



AA18, AA19, AA20

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Life Is On

