

# SpaceLogic™ Sensors

## Pressure - Dry Differential Analog

### EP Series, Bluetooth® Enabled



#### Product Description

The SpaceLogic EP Series pressure sensors 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 in. WC / 0-3,000 ft/min or 1-10 in. WC / 3,000-6,000 ft/min with four field-selectable sub-ranges. The universal model comes in one pressure/velocity range: 0-10 in. 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.

The Veris Sensors App provides the ability to connect to a device and configure a variety of field-selectable parameters remotely from a smartphone via Bluetooth wireless technology. The app allows users to create and store commonly used parameters that will reduce commissioning time and provide assurance that all parameters are properly configured with no call backs. The app can also create a trend log while

connected, providing important data for troubleshooting purposes. iOS® users can download the app through the [iOS App Store](#) on their smart device. Android users can download the app through the [Google Play™ store](#). For instructions on downloading and operating the app, see the Veris Sensors App User Guide or Veris Sensors App Quick Start Guide available on the Veris website at [www.veris.com](#).

#### 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

<p>EP</p> <p>Enclosure</p> <p><input type="checkbox"/></p> <p>D = Duct P = Panel</p>	<p>Range</p> <p><input type="checkbox"/></p> <p>301 = <u>Pressure:</u> 0 to 1 in. WC, 0 to 250 Pa <u>Velocity:</u> 0 to 3,000 ft/min, 0 to 15 m/s</p> <p>302 = <u>Pressure:</u> 1 to 10 in. WC, 250 to 2,500 Pa <u>Velocity:</u> 3,000 to 6,000 ft/min, 15 to 30 m/s</p>	<p>Local Display</p> <p><input type="checkbox"/></p> <p>Blank = No Display LCD = LCD Display</p>	<p>Wireless Technology</p> <p><input type="checkbox"/></p> <p>Blank = Wireless technology enabled model</p>
<p>EP</p> <p>Enclosure</p> <p><input type="checkbox"/></p> <p>U = Universal</p>	<p>Range</p> <p><input type="checkbox"/></p> <p>305 = <u>Pressure:</u> 0 to 10 in. WC, 0 to 2,500 Pa <u>Velocity:</u> 0 to 7,000 ft/min, 0 to 35 m/s</p>	<p>Local Display</p> <p><input type="checkbox"/></p> <p>Blank = No Display LCD = LCD Display</p>	<p>Wireless Technology</p> <p><input type="checkbox"/></p> <p>Blank = Wireless technology enabled model</p>

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## Specifications

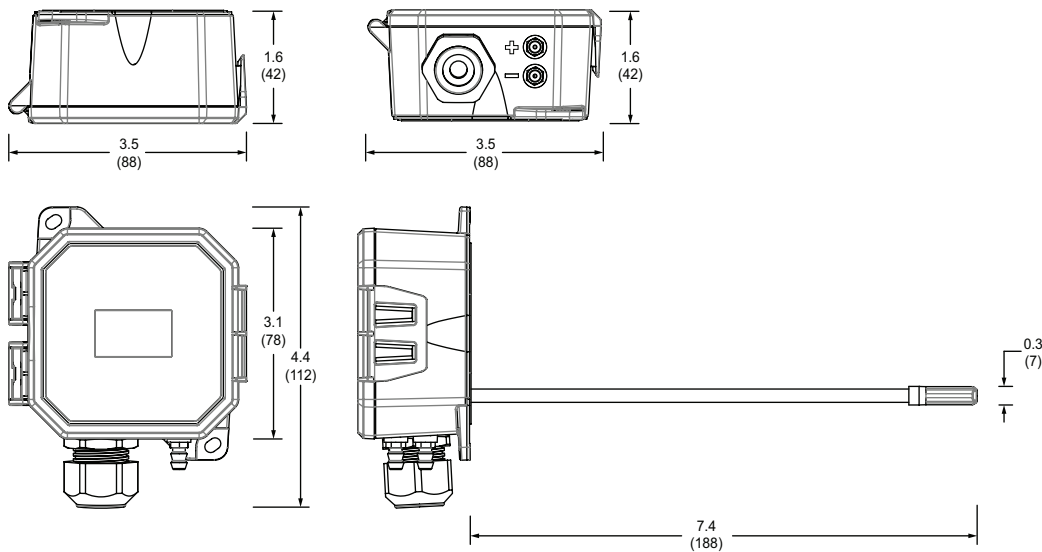
Media Compatibility	Dry or inert gas
Input Power	Three-wire Volt mode: 24 Vac $\pm 20\%$ or 12-30 Vdc*, Two-wire mA mode: 12-30 Vdc*
Output Power	Field-selectable: 2-wire, loop-powered 4-20 mA Minimum input voltage for 4 to 20 mA operation: 250 $\Omega$ loop = 12 Vdc; 500 $\Omega$ loop = 19 Vdc (DC only, clipped and capped), 24 Vac/dc or 3-wire 0-5V/0-10V Minimum load resistance for Volt operation: 5 k $\Omega$
Model 301 Selectable Ranges	<u>Pressure mode:</u> Unidirectional: 0.1/0.25/0.5/1 in. WC, switch selectable Bidirectional: $\pm 0.1/\pm 0.25/\pm 0.5/\pm 1$ in. WC, switch selectable Unidirectional: 25/50/100/250 Pa, switch selectable Bidirectional: $\pm 25/\pm 50/\pm 100/\pm 250$ Pa, switch selectable <u>Velocity mode:</u> 500/1,000/2,000/3,000 ft/min, 2.5/5/10/15 m/s
Model 302 Selectable Ranges	<u>Pressure mode:</u> Unidirectional: 1.0/2.5/5/10 in. WC, switch selectable Bidirectional: $\pm 1.0/\pm 2.5/\pm 5/\pm 10$ in. WC, switch selectable Unidirectional: 250/500/1,000/2,500 Pa, switch selectable Bidirectional: $\pm 250/\pm 500/\pm 1,000/\pm 2,500$ Pa, switch selectable <u>Velocity mode:</u> 3,000/4,000/5,000/6,000 ft/min, 15/20/25/30 m/s
Model 305 Selectable Ranges	<u>Pressure mode:</u> Unidirectional: 0.1/0.25/0.5/1/2.5/5/10 in. WC, switch selectable Bidirectional: $\pm 0.1/\pm 0.25/\pm 0.5/\pm 1/\pm 2.5/\pm 5/\pm 10$ in. WC, switch selectable Unidirectional: 25/50/100/250/500/1,000/2,500 Pa, switch selectable Bidirectional: $\pm 25/\pm 50/\pm 100/\pm 250/\pm 500/\pm 1,000/\pm 2,500$ Pa, switch selectable <u>Velocity mode:</u> 500/1,000/2,000/3,000/4,000/5,000/6,000/7,000 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	1.44 psid (9,953 Pa)
Burst Pressure	4.33 psid (29,860 Pa)
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	0.00048 in. WC/ $^{\circ}$ C (0.12 Pa/ $^{\circ}$ C) relative to 25 $^{\circ}$ C, 0 to 50 $^{\circ}$ C (32 to 122 $^{\circ}$ F)
Zero Drift (1 year)****	$\pm 5.0$ Pa ( $\pm 0.020$ in WC) max.
Zero Adjust	Pushbutton auto-zero and digital input (2-position terminal block)
Operating Environment	-20 to 60 $^{\circ}$ C (-4 to 140 $^{\circ}$ F)***
Altitude of Operation	0 to 3,000 m
Pollution Degree	2
Humidity Range	100% RH, non-condensing
Mounting Location	For indoor or outdoor use (display will not function below 0 $^{\circ}$ C (32 $^{\circ}$ F))
Fittings	Brass barb; 0.24" (6.1 mm) o.d.

Specifications (cont.)

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)
Bluetooth Frequency Range	2.402 to 2.480 GHz (Bluetooth version 4.2), enabled by DIP switch
Maximum Output Power	0 dBm
Environmental Ratings	IP65, NEMA 4, RoHs, REACH, RoHs (China)
Flammability Rating	UL 94 5VA fire retardant ABS, plenum rated
Limited Warranty	5 years
Agency Approvals	EN 61000-6-3 and A1 Class B, EN 61000-6-1, EN 61326-1, EN 61010-1, EN 300 328 V2.2.2, EN 301 489-1 V2.1.1

- \* Class 2/II power source.
- \*\* For measured values between 200 and 7000 ft/min (1 and 35 m/s).
- \*\*\* Display will not function below 0 °C (32 °F).
- \*\*\*\* Can be compensated for using the Zero Reset function.

Dimensions in. (mm)



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## Accessories

VFXP Series Air Velocity Measurement Probe\*

Velocity Pitot Tubes, 8-5/8", 12-5/8", 18-5/8"  
(AA18, AA19, AA20)\*

Static-04 Pickup - 4" Duct Static Pickup Probe (AA06)

Static-08 Pickup - 8" Duct Static Pickup Probe (AA07)

Wall Plate Remote Pickup (AA56)

\*Note: The EPP (panel) and the EPU (universal) models used in velocity mode, require the use of a VFXP Series air velocity/measurement probe or AA18, AA19 or AA20 velocity pitot tubes; sold separately. Please note that the tubing accessory kit included with the EP Series is intended to be used with the included pickup probes and may not form an adequate seal with the VFXP Series. When using the VFXP Series, additional tubing, adapters or clamps should be made available by the customer and may be necessary depending upon application. The EP Series barb fittings support 5mm tubing.

