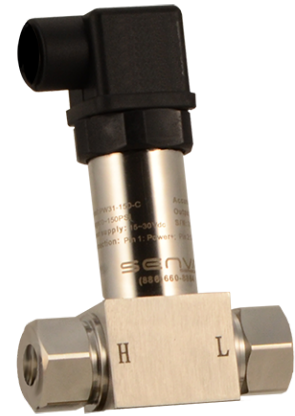


PW31 Series Single Diaphragm Wet-to-Wet Differential Pressure Sensor

±0.25% accuracy
Stand-alone transducer, 3-valve, or 5-valve options
Rugged IP65 construction for harsh environments
Optional LED display for ease of commissioning and troubleshooting



DESCRIPTION

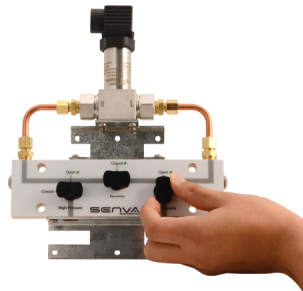
Senva's PW31 Series is designed to streamline installation and provide maximum accuracy. Options for standalone transducer or 3-valve and 5-valve bypass assemblies allow flexibility and save time on installation and commissioning. The single-diaphragm element is temperature compensated to provides superior ±0.25% accuracy. The PW31's compact, light, and rugged structure combined with IP65 stainless steel construction make it ideal for most installations and capable of withstanding the most rugged environments. Now available with a highly visible, loop-powered LED display. Just plug it in for ease of commissioning and troubleshooting (4-20mA version only).

APPLICATIONS

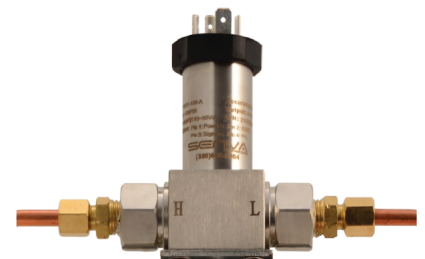
- Meet rigid accuracy and/or bypass specifications
- Demand measurement in HVAC systems for pump speed control and local indication
- Process control systems
- Measurement of gases, vapors, and liquids
- Measure pressure changes on pumps for efficiency regulation and energy savings
- Level measurement in tanks and vessels
- Filter status monitoring
- System leak detection



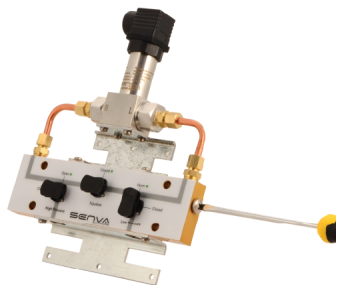
IP65 LED display option for ease of troubleshooting



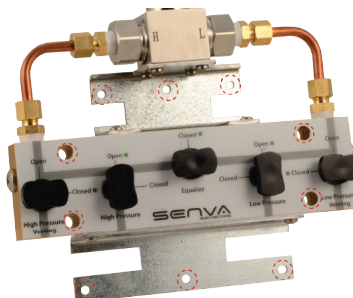
3-valve and 5-valve bypass assemblies to meet specifications



High accuracy ±0.25% single-diaphragm element



Easy-to-use bleed valves



Securely screw-mount or clamp to any pipe



DIN43650 connection for ease of wiring

FEATURES

- Temperature compensated element for high accuracy in any environment
- 3-valve or 5-valve bypass options available to meet specifications
- DIN 43650 connector with screw terminals - no splicing necessary
- Versatile 1/2" FNPT allows simplified conduit connections - connect to any EMT, flex, or liquid-tight conduit
- Easy-access bleed valves for quick commissioning
- Calibration certificate included with every sensing element
- Optional LED display is highly visible and makes commissioning and troubleshooting simple (IP65)

ORDERING

□	-	□	-	□	-	□	-	□
Model		Bypass		Transducer Range		Output		Display
PW31		X = None 3V = 3 Valves 5V = 5 Valves		005 = 0-5 PSID 010 = 0-10 PSID 025 = 0-25 PSID 050 = 0-50 PSID 100 = 0-100 PSID 150 = 0-150 PSID		A = 0-5V B = 0-10V C = 4-20mA		D = Display* *for 4-20mA units only

Manifold Only



Display Only



PW31-DISPLAY

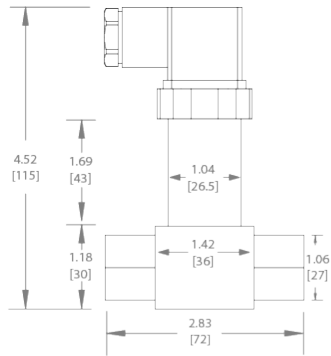
Ordering the Correct Transducer

Transducer Ordering #	PSID Range (Differential)	Expected PSIG Pressure Range (Max Line Pressure)
005	0-5 PSID	0-25 PSIG
010	0-10 PSID	0-50 PSIG
025	0-25 PSID	0-100 PSIG
050	0-50 PSID	0-250 PSIG
100	0-100 PSID	0-500 PSIG
150	0-150 PSID	0-750 PSIG

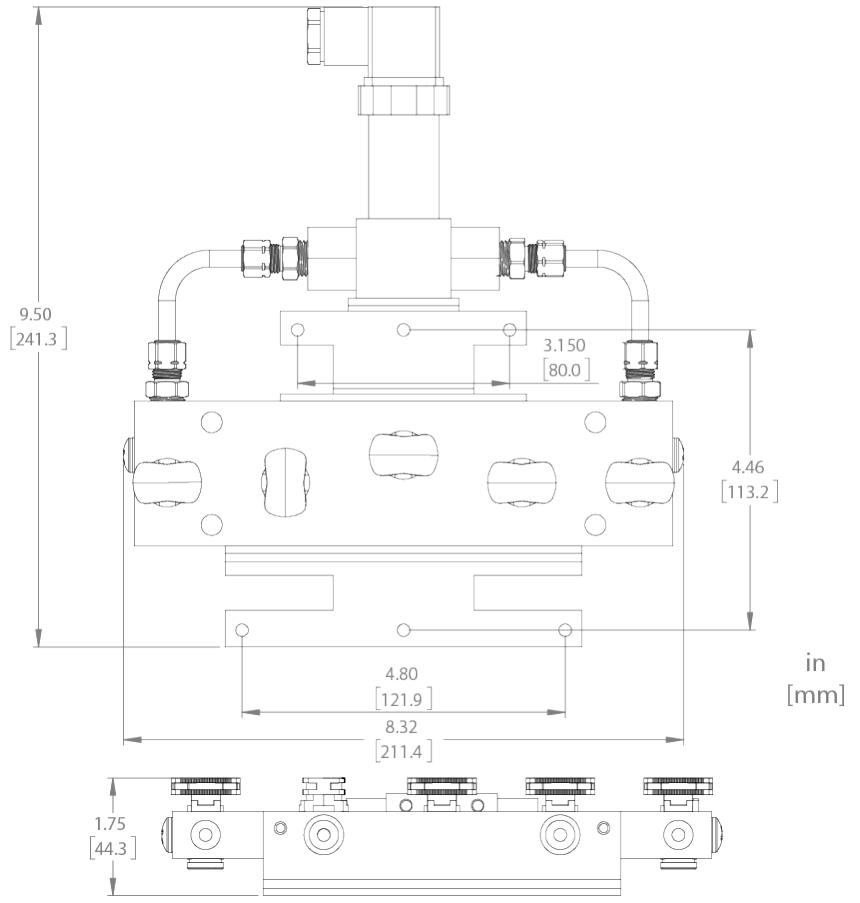
**Using a lower range PSID transducer for higher PSIG applications will result in inaccurate readings and may reduce the life span of the transducer. See "line pressure effect" in specification section.*

DIMENSIONS

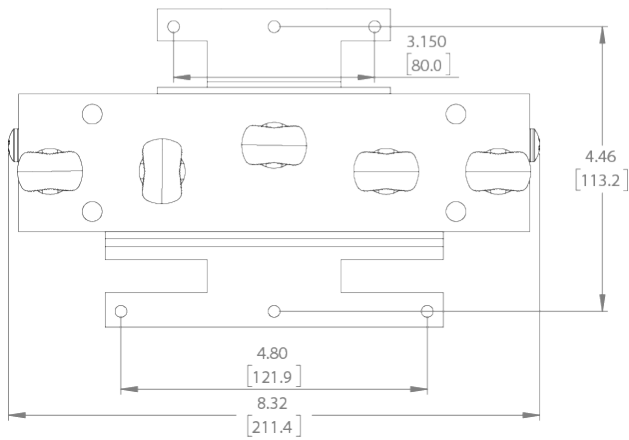
Transmitter Only



3-Valve and 5-Valve Assemblies (same dimensions)



Manifold Only



Warning: The datasheet is designed for reference only. Refer to installation instructions that accompany the product and heed all safety instructions. Product improvement is a continuing process at Senva. Changes may occur to products without prior notice

SPECIFICATIONS							
Power supply	15-35vdc, 20mA max.						
Outputs	2-wire 4-20mA, 3-wire 0-10V, 3-wire 0-5V						
Operating Temperature (3)	Operating Temperature	-4 to 175°F (-20-80°C)					
	Compensated range	30 to 158°F (0-70°C)					
Media Compatibility Transmitter	Transmitter Only	316L SS compatible liquids and gases, Viton O-rings					
Media Compatibility Manifold	Connection	Copper tube, CW614n Brass fittings (2.5-3.5% lead content)					
	Manifold O-Rings	Neoprene					
	Manifold Valves	Glass filled Acetal (Polyacetal Resin)					
	Manifold Material	Anodized Aluminum					
	Type	Micro-machined silicon strain gauge					
	Accuracy (2)	±0.25%					
	Zero and Span from Factory	Included in ±0.25% accuracy statement					
	Temp coefficient zero	For units <25PSI: ±1.7% FS/100°F; ±1.5%FS/50°C For units >25PSI: ±1.1% FS/100°F; ±1.0%FS/50°C					
	Temp coefficient span	For units <25PSI: ±1.7% FS/100°F; ±1.5%FS/50°C For units >25PSI: ±1.1% FS/100°F; ±1.0%FS/50°C					
	Line Pressure Effect	Zero Shift ≤0.0035%FS/PSIG line pressure					
Burst Pressure	500% DP range high side; 300% DP range low side						
Sensor Performance	Differential Pressure Ranges	0-5 PSID	0-10	0-25	0-50	0-100	0-150
	Differential Overload Pressure	7.5 PSID	15	37.5	75	150	225
	Maximum Static/Line Pressure (1)	25 PSIG	50	125	250	500	750
	Accuracy (2)	±0.0125 PSID	±0.025	±0.0625	±0.125	±0.25	0.375
	Sensor Enclosure	Laser welded housing, IP65					
	Long Term Stability	±0.5 %FS/Year					
	Shock	30G					
Vibration	5G @ 50Hz; 10G acceleration						
EMI/RFI Protection	Per CE Requirements						
Connection	Pressure Connection Transmitter	1/4" NPT Female					
	Pressure Connections Manifold	1/4" NPT female					
	Electrical Connection	DIN43650A					
	Environmental	IP65 (Installed with water-tight fittings) 1/2" conduit adapter included					
Display	Accuracy	0.1%					
	Output	4-20mA					
	Voltage Drop	<3.5VDC					
	Sample Rate	4/s					
	Environmental	IP65					
Agency	Transmitter Only	CE, RoHS					
	Manifold	CE					

(1) This is maximum gauge pressure to maintain the 0.25% accuracy.

(2) FS is defined as the full scale of the selected range. Accuracy includes non-linearity, hysteresis, repeatability, zero and span tolerance.

(3) Stated operating range is for electronics only; Media temperature may be considerably higher. Use of device outside of compensated range may result in drift.

* Product improvement is a continual process as Senva and product features and specification may change without prior notice. Refer to instructions that accompany the product for installation and wiring.