




### Description & Features:

- Versatile high static low differential pressure gauges
- Four types of sensing elements for a large variety of ranges
- Switches available for actuation
- ASME B40.100 compliant
- 5 year warranty

### Applications:

- Used for filtration systems, low pressure gas installations and for leak detection in low pressure, high static systems

Specifications	Piston Gauge (PPD)	Rolling Diaphragm Gauge (PRD)	Small Convoluted Diaphragm Gauge (PSD)	Convoluted Diaphragm Gauge (PVD)
<b>Dial</b>	2.5" (63mm), 3.5" (90mm), 4.5" (115mm)	2.5" (63mm)	2.5" (63mm), 3.5" (90mm), 4.5" (115mm)	3.5" (90mm), 4.5" (115mm)
<b>Case</b>	Aluminum or engineered plastic	Engineered plastic	Aluminum or engineered plastic	Aluminum or engineered plastic
<b>Lens</b>	Shatter resistant acrylic (standard), safety glass (optional)	Shatter resistant acrylic (standard), safety glass (optional)	Shatter resistant acrylic (standard), safety glass (optional)	Shatter resistant acrylic (standard), safety glass (optional)
<b>Line Connection Locations</b>	In-line, back or bottom	In-line (only)	In-line, back, dual top & bottom or bottom	Dual top & bottom
<b>Connections</b>	1/4" NPTF (standard), 1/2" NPTF, 7/16"-20 SAE	1/4" NPTF (only)	1/4" NPTF (standard), 1/2" NPTF, 7/16"-20 SAE	Dual 1/4" NPTF
<b>Wetted Parts Materials</b>	SS piston with ceramic magnet (standard), Aluminum, Bronze or Monel® piston (optional)	SS parts with Buna N seals	SS parts with Buna N seals	SS parts with Buna N seals (standard), Hastelloy® C parts with Buna N seals (optional)
<b>Body Material</b>	SS, aluminum, bronze or Monel®	SS, aluminum or acetal	SS, aluminum or brass	SS, aluminum, brass, engineered plastic or Hastelloy® C
<b>Internals/Movement</b>	Magnetic coupling using piston & spring	Magnetic coupling with rolling diaphragm sensor	Magnetic coupling with convoluted diaphragm sensor	Magnetic coupling with convoluted diaphragm sensor
<b>Migration of Media</b>	Marginal	Zero	Zero	Zero
<b>Seal</b>	Buna N (standard), PTFE, FKM, neoprene	Buna N (standard), FKM	Buna N (standard), FKM, silicone, neoprene	Buna N (standard), FKM, silicone, neoprene
<b>Standard Differential Ranges</b>	0-5 thru 110 psid (0.4-8 bar)	0-5 thru 50 psid (0.4-3 bar)	0-25 thru 100 psid (1.5-7 bar)	0-5 thru 400" H <sub>2</sub> O (12.4 mbar-1 bar)
<b>Maximum System Pressure</b>	Aluminum: 3,000 psi (200 bar) Bronze, Monel®: 5,000 psi (350 bar) SS: 6,000 psi (400 bar)	Aluminum, SS: 1,000 psi (70 bar) Acetal: 500 psi (35 bar)	Aluminum, SS: 3,000 psi (200 bar) Brass: 1,500 psi (100 bar)	Aluminum, brass, SS: 500 psi (35 bar) Engineered plastic: 300 psi (20 bar) Hastelloy® C: 500 psi (35 bar)
<b>Ambient Temperature</b>	-40°F to 200°F (-40°C to 93°C)	-40°F to 200°F (-40°C to 93°C)	-40°F to 200°F (-40°C to 93°C)	-40°F to 200°F (-40°C to 93°C)
<b>Accuracy</b>	±2% of full scale value	±5% of full scale value	±2% of full scale value	0-5 thru 9.9" H <sub>2</sub> O: ±5% of full scale 0-10 thru 400" H <sub>2</sub> O: ±2% of full scale
<b>Warning (brass internals only)</b>	N/A	N/A	 <b>WARNING:</b> This product can expose you to chemicals including lead, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to <a href="http://www.P65Warnings.ca.gov">www.P65Warnings.ca.gov</a> .	

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## Piston Type (PPD)

- Most suitable for general purpose applications including filters, pumps and chillers. Uses a piston as a sensor to separate high & low pressure in response to pressure differentiation.
- Standard Differential Range: 0/5 thru 110 psid (0.4/8 bar)
- Maximum System Pressure Aluminum: 3,000 psi (200 bar)
- Maximum System Pressure Bronze, Monel<sup>®</sup>: 3,000 psi (200 bar)
- Maximum System Pressure SS: 6,000 psi (400 bar)
- Accuracy  $\pm 2\%$  full scale ascending

## Rolling Diaphragm Gauge (PRD)

- Operates on rolling diaphragm as a sensor, which assures complete separation of the high and low pressure ports. Suitable for use on dissimilar fluids, wet gas and process fluids with particulates present. Used in high line pressure and differential pressure ranges up to 50 psid.
- Standard Differential Range: 0/5 thru 50 psid (0.4/3 bar)
- Maximum System Pressure Aluminum, SS: 1,000 psi (70 bar)
- Maximum System Pressure Acetal: 500 psi (35 bar)
- Accuracy  $\pm 5\%$  full scale ascending

## Small Convoluted Diaphragm Gauge (PSD)

- Operates on a convoluted diaphragm as a sensor which separates high and low pressure ports. Ideally suited for use on dissimilar fluids and wet gas or fluids with high concentration of particles. Suitable for use with a diaphragm/chemical seal.
- Standard Differential Range: 0/25 thru 100 psid (1.5/7 bar)
- Maximum System Pressure Aluminum, SS: 3,000 psi (200 bar)
- Maximum System Pressure Brass: 1,500 psi (100 bar)
- Accuracy  $\pm 2\%$  full scale ascending

## Convoluted Diaphragm Gauge (PVD)

- Operates on a convoluted diaphragm sensor for low range flow, liquid and vacuum applications. Used in tank level, horizontal or vertical flow applications, filtering of very low pressure gases.
- Standard Differential Range: 0/5 thru 400" H<sub>2</sub>O (12.4 mbar/1 bar)
- Maximum System Pressure Aluminum, brass, SS: 500 psi (35 bar)
- Maximum System Pressure Engineered plastic: 300 psi (20 bar)
- Maximum System Pressure Hastelloy<sup>®</sup> C: 500 psi (35 bar)
- Accuracy 0/5 thru 9.9" H<sub>2</sub>O  $\pm 5\%$ , 0/10 thru 400" H<sub>2</sub>O  $\pm 2\%$

Note: Technical drawings are available upon request

# Convolved Diaphragm Gauge (High Static Pressure Differential)

# PVD

## Series Number (for custom, non-standard product)

	P	V	D	-		-		-		-		-		-		-			
<b>SERIES TYPE</b>	Stainless Steel internal metal parts (Max system pressure 300 psi) glass reinforced engineered plastic body, two x 1/4" carbon steel compression fittings																		
	Aluminum body, stainless Steel internal metal parts (Max system pressure 500 psi) dual 1/4" NPTF connections top & bottom																		
	Brass body, stainless Steel internal metal parts (Max system pressure 500 psi) dual 1/4" NPTF connections top & bottom																		
	Stainless steel body, stainless Steel internal metal parts (Max system pressure 500 psi) dual 1/4" NPTF connections top & bottom																		
	Hastelloy-C body, Hastelloy-C internal metal parts (Max system pressure 500 psi) dual 1/4" NPTF connections top & bottom (+/- 5% ascending accuracy)																		
<b>DIAL SIZE</b>	4.5" Round dial, plastic case																		
	3.5" Round dial, anodized aluminum case																		
	4.5" Round dial, anodized aluminum case																		
	Special																		
<b>SEAL</b>	Buna-N (standard)																		
	FKM 0/20"H2O to 0/400"H2O																		
	Silicone 0/5"H2O to 0/100"H2O																		
	Neoprene 0/5"H2O to 0/100"H2O																		
	Ethylene Propylene 0/20"H2O to 0/400"H2O																		
	Special																		
<b>CONNECTION</b>	1/4" carbon steel compression tube fittings (2) for above model P or 1/4" NPTF (4) for above models A, B or S																		
	1/4" stainless steel compression tube fittings (2)																		
	1/4" NPTF brass adapters (2) for above model P only																		
	1/4" NPTF stainless steel adapters (2) for above model P only																		
	Special																		
<b>OPTIONS</b>	No additional options required (standard)																		
	Drain & bleed plugs, stainless steel (2), above model P only																		
	Drain & bleed in NEMA 4X enclosure																		
	Pipe mounting kit, carbon steel																		
	Pipe mounting kit, stainless steel																		
	Hastelloy-C internal wetted metal parts and fittings, poly body only																		
	1/2" NPTF stainless steel adapters (2), available on above models A, B & S only																		
	Maxi-pointer																		
	NACE (for sour gas applications, not available in Bronze case)																		
	GRN (Canadian Registration Number, aluminum or SS body only)																		
	Safety glass (4.5" aluminum case only)																		
	Oxygen cleaning																		
	Stainless steel tag with SS wire																		
	Stainless steel tag with SS screw																		
	Wall mount kit (not available with Switches)																		
	Special																		
<b>SWITCH</b>	No electrical options required (standard)																		
	1 Reed switch with condulet enclosure																		
	2 Reed switches with condulet enclosure																		
	1 Reed switch with condulet enclosure and plug-in connector (DIN 43650)																		
	2 Reed switches with condulet enclosure and plug-in connector (DIN 43650)																		
	1 switch in NEMA 4X plastic enclosure																		
	2 switches in NEMA 4X plastic enclosure																		
	Special																		
<b>ELECTRICAL</b>	No electrical options required (standard)																		
	SPDT 3W, 0.25A 125VAC / VDC, adjustable range 10-90%																		
	Special																		
	Minimum differential range 0/5"H2O (example) - Maximum differential range 0/400"H2O - Maximum system pressure 300psi or 500psi																		

Differential