



DIFFERENTIAL PRESSURE GAUGES



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Diff. Pr. Gauges - Bellow/Diaphragm Type

MODEL : DPG-B (Bellow with Dry Case) DPG-D (Diaphragm with Dry Case) LFDPG-B (Bellow with Liquid Filled Case) LFDPG-D (Diaphragm with Liquid Filled Case)

Features

- Bellow/Diaphragm type construction
- Reference Standard: EN 837
- All SS internals
- Chemical seal unit (optional) for process suitability
- Accuracy ± 1% FSD
- A set of two stainless steel bellows mounted on a force balance enables direct reading of the actual differential pressure.
- Each Bellow/Diaphragm of the pressure gauge can withstand the full static pressure without any damage or shifting being caused to the instrument.



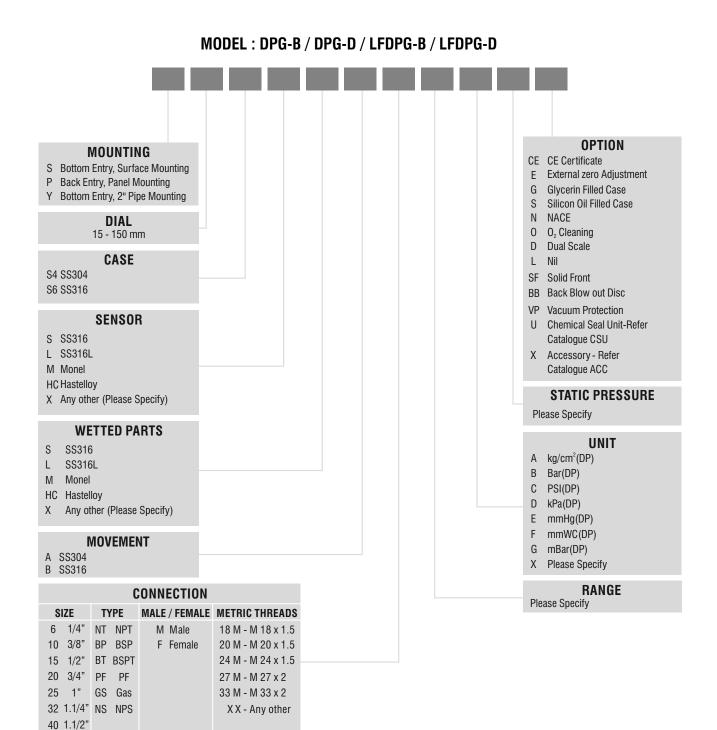
Specifications

Dial

Case Protection Window Pointer Sensing element Sensor Material & Wetted Parts Movement Connection Range Static Pressure Accuracy Blow out disc Temperature suitability Optional 150 mm, Aluminium, white background, black markings SS304 / SS316 with bayonet bezel Weatherproof to IP-68 (IS:13947 part I / IEC:60529) Safety glass (Shatter proof / Toughened glass) Light weight, micrometer adjustable Bellow / Diaphragm

 $\begin{array}{l} \mbox{SS316} / \mbox{SS316L} / \mbox{Monel} / \mbox{Hastelloy-C} \\ \mbox{SS304} / \mbox{SS316} \\ \mbox{$1/2"$}\ \mbox{NPT (M) as standard (other on request)} \\ \mbox{Minimum 0 to 1000 mm WC} \\ \mbox{Upto 60 kg/cm2g, Higher Static Pressure on request} \\ \mbox{\pm 1\% FSD$} \\ \mbox{Provided (top of the case)} \\ \mbox{$(-)$ 20^{\circ}C$ to 80^{\circ}C$} \\ \mbox{Chemical seal units with Capillary} \\ \mbox{Liquid filled case} \\ \mbox{External Knob for zero setting} \end{array}$







Diff. Pr. Gauges-Bellow Diaphragm Type

MODEL : DPG-BD

Features

- Bellow- Diaphragm type construction
- Static pressure upto 40 kg/cm2 (Max.)
- All SS internals
- Accuracy ± 1% FSD
- Unit of measurement mbar, mmWC, kPa
- IP-68 Protection
- For measurement of small differential pressures at high static pressure.



Specifications

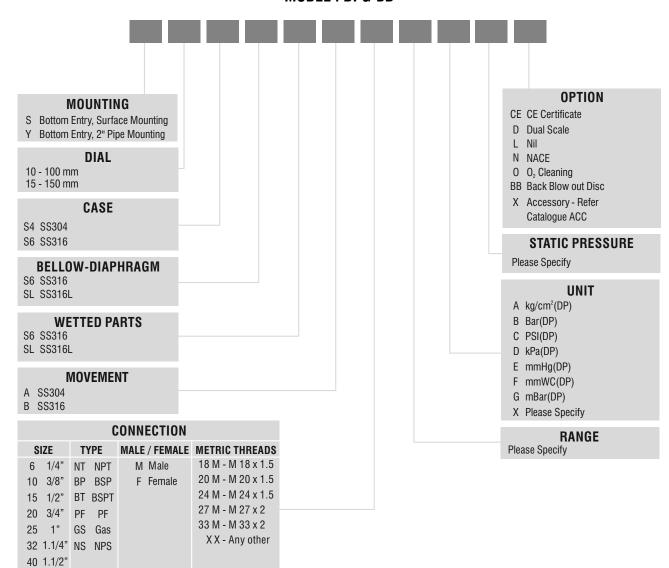
Dial

	black markings
Case	SS304 / SS316 with bayonet bezel
Protection	Weatherproof to IP-68 (IS:13947 part I / IEC:60529)
Window	Safety glass (Shatter proof / Toughened glass)
Pointer	Micrometer Pointer
Sensing Element	Bellow- Diaphragm in SS316, SS316L
Other wetted parts	SS316 / SS316L
Movement	SS304 / SS316
Connection	1/2" NPT (M) as standard (other on request)
Range	Minimum 0 to 250 mm WC
Static Pressure	Upto 40 kg/cm2g max.
Accuracy	± 1% FSD
Blow out disc	Provided (top of the case)
Temperature suitability	(-) 20°C to 80°C

100 mm / 150 mm, Aluminium, white background,



MODEL : DPG-BD



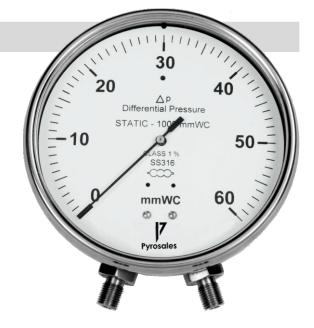


Differential Pr. Gauges-Capsule Type

MODEL : DPG-C

Features

- Low differential pressure measurement with high accuarcy
- Sensing element- Capsule in SS316L
- Screwed connection
- Accuracy ± 1% FSD
- Pyrosales stainless steel capsule differential pressure gauges are designed for measuring small differential pressures on clean & dry air or gas system

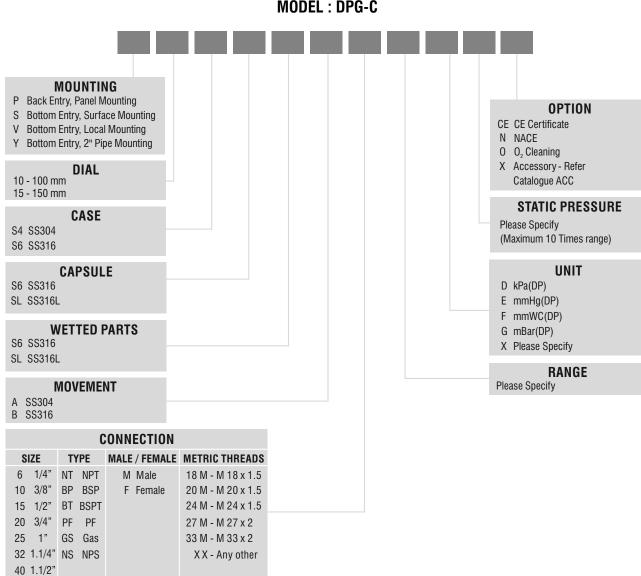


Specifications

Dial

100 mm / 150 mm, Aluminium, white background,





MODEL : DPG-C



Differential Pr. Gauges-Magnehelic Type

MODEL : DPG-M

Features

- Magnetic Diaphragm/Piston type construction
- Static pressure 35 bar & 100 bar
- Body block Aluminium / SS316 / SS316L
- Screwed connection
- Accuracy ± 2% FSD (Ascending)
- Unit of measurement kg/cm², bar, mmWC
- IP-67 Protection



Specifications

Dial

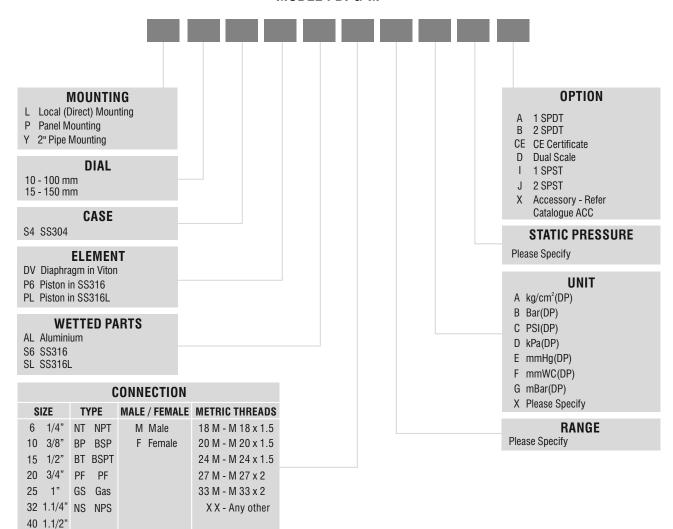
	black markings										
Case & Bezel	SS304 weatherproof to IP-67 (IS:13947 part I / IEC:60529)										
Window	Safety glass (Shatter proof / Toughened glass)										
Sensing	Diaphragm in Viton / Piston in SS										
Body Material	Aluminium / SS304 /SS316										
Magnet	Ceramic										
Spring	SS316										
Connection	1/4" NPT (F) as standard (other on request)										
Range	Minimum 0 to 100 mm WC										
Static Pressure	35 bar & 100 bar										
Accuracy	± 2% FSD (on Ascending Side)										
Blow out disc	Provided (top of the case)										
Temperature suitability	(-) 20°C to 80°C										
Optional	Switching : SPST (Reed Switch)										
	Voltage : 230V AC/DC (max)										
	Rating Switch : 1SPST & 2 SPST										
	Capacity : 30 VA AC/DC (max)										

100 mm / 150 mm, Aluminium, white background,

Current: 1 A (max)Switching: SPDT (Micro Switch)Voltage: 230V ACRating Switch: 1 SPDT & 2 SPDTCurrent: 5 A (max)



MODEL : DPG-M





Differential Pr. Gauges Diaphragm type

MODEL : DPG-DS (Dry Case) LFDPG-DS (with Liquid filled case)

Features

- General purpose differential pressure measurement
- Sensing element of diaphragm
- Wetted Parts in SS316/SS316L/SS316+PTFE/Monel/Hastelloy-C
- Non-wetted parts & case in stainless steel
- Accuracy ± 2% FSD
- 'Pyrosales' Diaphragm sensing differential pressure gauges are designed for general process applications where accuracy requirement is ±2%FSD
- Span of dial marking at 270 Deg angle, even for very low ranges



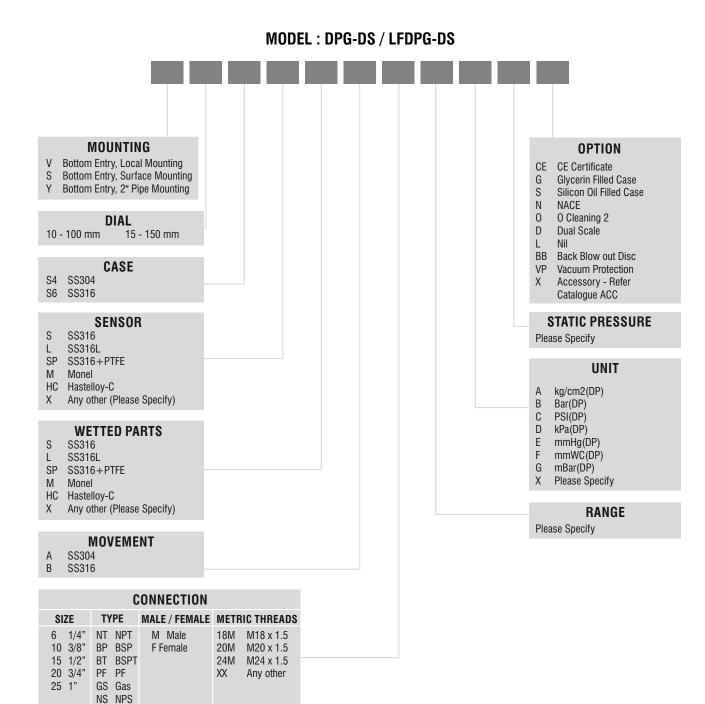
Specifications

Dial	100mm / 150 mm, Aluminium, white background, black markings
Case	SS304 as standard (SS316 on request) with bayonet bezel
Protection	Weatherproof to IP-68 (IS:13947 part I / IEC:60529)
Window	Safety glass (Shatter proof / Toughened glass)
Pointer	Pointer Light weight, micrometer adjustable
Sensing element	Diaphragm
Wetted Parts	SS316 / SS316L / SS316 + PTFE / Monel / Hastelloy-C
Movement	SS304 as standard (SS316 on request)
Connection	1/2" NPT (M) as standard (other on request)
Range	Any range between 0 to 160 mm WC & 0 to 1.6 kg/cm2(DP)
Static Pressure	As shown below in the Table
Accuracy	± 2% FSD
Blow out disc	Provided (top of the case)
Temperature suitability	(-) 20°C to 80°C
Optional	Liquid filled case (for Range 0 to 1000mmWC & above only)

Range Vs Static Pressure:

Diff Pressure Range	Static Pressure	Case Filling
0 to 160 mmWC & 0 to 200mmWC	4 kg/cm2.g as standard (up to 10 kg/cm2.g on request)	N.A.
0 to 250 mmWC & above up to 1000 mmWC	6 kg/cm2.g as standard (up to 25 kg/cm2.g on request)	N.A.
0 to 1000 mmWC & above up to1.6 kg/cm2	15 kg/cm2.g as standard (up to 40 kg/cm2.g on request)	Available







Indicating Differential Pressure Switch

MODEL : IDPS-B (Bellow Sensing) IDPS-D (Diaphragm Sensing)

Pyrosales has been designing and manufacturing high quality Bellow/Diaphragm Type Differential pressure indicating switches to suit most industrial applications, for accurate control of process equipment. Rigorous and continuous tests are conducted for design and quality conformance.

Indicating differential pressure switches are design to use in pumps, compressors, lubrication systems, turbines, generators, boilers, furnaces etc. in industries such as chemical, fertiliser, ferrous and non-ferrous metal, pulp and paper, power, waste water treatment, refinery and petrochemical, synthetic fibre etc.

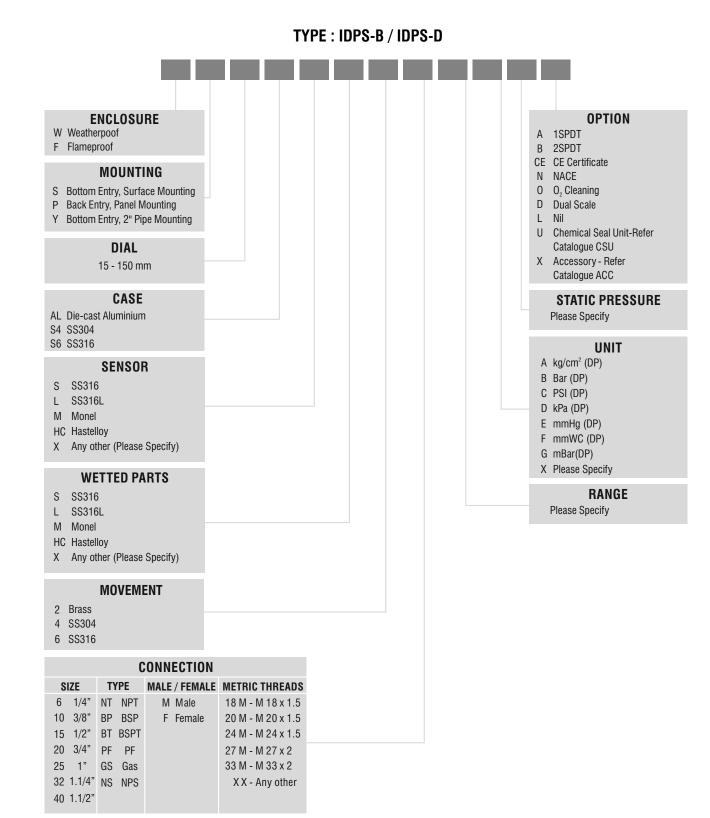
Specifications

Dial	150 mm, aluminium, white background,
	black markings
Case	SS304 / SS316 with bayonet bezel (Weather proo
	Die Cast Aluminium (Flame proof)
Protection	Weatherproof to IP - 68
	(IS:13947 part I / IEC:60529)
	Flameproof to IIA, IIB
	(equivalent to NEC Cl. 1, Div. 2, Gr. C & D)
Window	Safety glass
Cable Entry	1/2" NPT (F)
Switch	1 SPDT / 2 SPDT. Snap acting micro-switch
	(DPDT on request) Rated 5A @ 230 VAC
	(3A @ 28 VDC)
Sensing element	Bellow / Diaphragm
Sensor Material	
& Wetted Parts	SS316 / SS316L / Monel / Hastelloy-C
Movement	Brass / SS304 / SS316
Set Point	Adjustable throughout the range
Mounting	Surface Mounting / 2" Pipe Mounting
Process Connection	1/2" NPT (M) as standard. Other connections
	optionally
Range	As per customer requirement
	(minimum 0 to 1000 mm WC)
Indication Accuracy	±1% FSD
Switching Accuracy	±1.5 - 2% FSD
Process Temperature	(-)20°C to 60°C
Calibration .	All switches are individually calibrated
Optional	Diaphragm seal with Capillary



Kg/cm





Flow Indicator

MODEL : FI

Features

- Differential pressure across orifice plate assembly
- Weld neck flange connection
- Unit of measurement direct in terms of flow unit
- Weatherproof to IP 68 (IS 13947 Part 1)

Specifications

Orifice Plate Assembly

Design Conforms to ISA RP 3.2 DIN 1052 RS 10/2 IS0-5167								
Design	Conforms to ISA RP 3.2, DIN 1952, BS 1042, ISO-5167							
Types	Square edge concentric, Quadrant edged, Conical entrance,							
	Eccentric, Segmental							
Plate material	SS304, SS316, SS316L as standard. Hastelloy-C, Monel,							
	PP, PVC, PTFE coated, etc. can be given on request.							
Orifice Bore	In accordance with ISO-5167, BS-1042, ASME MFC 3M,							
	R.W.Miller, L.K.Spink, AGA-3							
Tag Plate	In the same material as plate & is welded to orifice plate.							
	Tag plate integral to the Orifice plate (i.e. without welding)							
	can also be offered as a special case.							
Vent / Drain	Vent or Drain holes are provided as per customer's							
	requirement. Not drilled for orifice bores smaller than 25.4 mm							
Flange Union	Weld neck, Slip on, Threaded, Socket welded with RF or RTJ							
	facing Orifice flanges are in accordance with ANSI B16.36							
	with minimum flange rating of 300# for sizes up to 8" or							
	male - female flanges in accordance with ANSI B16.5.							
Pressure Tappings	Corner tappings are recommended for sizes upto 1 1/2"; Flange							
	taps from 2" to 16"; D – D/2 taps for higher sizes.							
Gasket	CAF as per IS: 2712 Gr 0/1, SS spiral wound + CAF, SS							
	spiral wound + Grafoil, SS spiral wound + PTFE are normally							
	supplied as per process requirement. Other materials available							
	on request.							
	For RTJ flanges, the plate is fixed on the plate holder. The plate							
	holder is in Soft Iron material & acts as a gasket.							
Studs / Nuts	ASTM A193 Gr.B7/A-194 Gr.2H as standard, Other material							
	on request.							
Jack Screw	Carbon Steel (C1038 heat treated)							

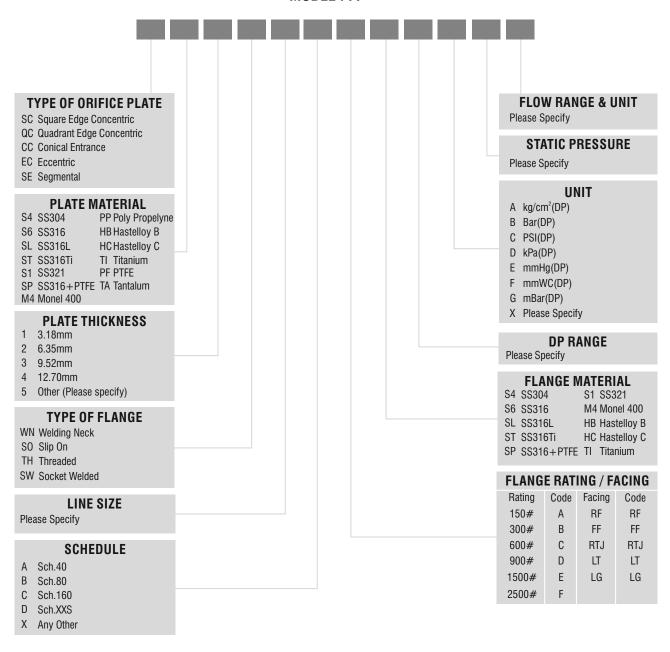
Flow Indicator

Dial	150 mm, Aluminium, white background,
	black markings
Case	SS304 / SS316 with bayonet bezel
Protection	Weatherproof to IP-68 (IS:13947 part I / IEC:60529)
Window	Safety glass (Shatter proof / Toughened glass)
Pointer	Light weight, micrometer adjustable
Sensing	Bellow in SS316L
Other wetted parts	SS316L
Movement	SS304 / SS316
Connection	1/2" NPT (M) as standard (other on request)
Range	Minimum 0 to 1000 mm WC
Static Pressure	Upto 60 kg/cm2g, Higher Static Pressure on request
Accuracy	± 1% FSD
Blow out disc	Provided (top of the case)
Temperature suitability	(-) 20°C to 80°C
Optional	Three Valve Manifold in SS316, suitable SS tubing and associated instrument fittings









To convert pressure from one unit to another: 1. Start at column heading with units to convert from. 2. Move down the same column to number "1". 3. Move across this row to the column with units heading you are converting to. 4. Multiply the number in this cell with the value you are converting from to get the new value in converted units.

MPa	0.0069	0.1013	0.00025	0.00001	0.0001	0.00043	0.0981	0.00339	0.000133	0.00133	0.0001	0.1	0.000001	0.001	-
КРа	6.895	101.3	0.249	0.0098	0.098	0.431	98.07	3.386	0.1333	1.333	0.1	100	0.001	-	1,000
Pa (N/m ²)	6,895	101,325	248.8	9.8	98	431	98,067	3,386	133.3	1,333	100	100,000		1,000	1,000,000
bar	0.0689	1.013	0.00249	0.000098	0.00098	0.00431	0.981	0.0339	0.001333	0.01333	0.001	-	0.00001	0.01	10
mbar	68.95	1013	2.488	0.098	0.98	4.31	980.7	33.86	1.333	13.33		1,000	0.01	10	10,000
сm Нg	5.17	76	0.187	0.00735	0.0735	0.3232	73.56	2.54	0.1	. 	0.075	75	0.00075	0.75	750
тт Нg	51.715	760	1.866	0.0735	0.735	3.232	735.6	25.4	-	10	0.75	750	0.0075	7.5	7500
inch Hg	2.036	29.92	0.0735	0.00289	0.0289	0.1273	28.96		0.0394	0.394	0.0295	29.53	0.000295	0.295	295.3
Kg/cm ²	0.0704	1.033	0.00254	0.0001	0.001	0.0044	. 	0.0345	0.00136	0.0136	0.00102	1.02	0.00001	0.0102	10.2
oz/in²	16	235.1	0.5775	0.0227	0.227		227.6	7.858	0.31	3.1	0.2321	232.1	0.00232	2.321	2321
cm WC	70.38	1,034.30	2.54	0.1		4.4	1000.1	34.57	1.361	13.61	1.021	1021	0.0102	10.207	10,207
MC	703.8	10,343	25.4		10	43.986	10001	345.7	13.61	136.1	10.21	10,210	0.102	102.07	102,074
inch WC	27.71	407.2	-	0.0394	0.3937	1.732	394.1	13.61	0.536	5.358	0.4012	401.9	0.00402	4.019	4019
atms.	0.0681	-	0.00246	0.000097	0.000967	0.00425	0.968	0.03342	0.001316	0.01316	0.000987	0.987	0.00001	0.00987	9.869
psi	-	14.7	0.0361	0.001421	0.01421	0.0625	14.22	0.4912	0.01934	0.1934	0.0145	14.504	0.000145	0.14504	145.04

Pressure Conversion Chart