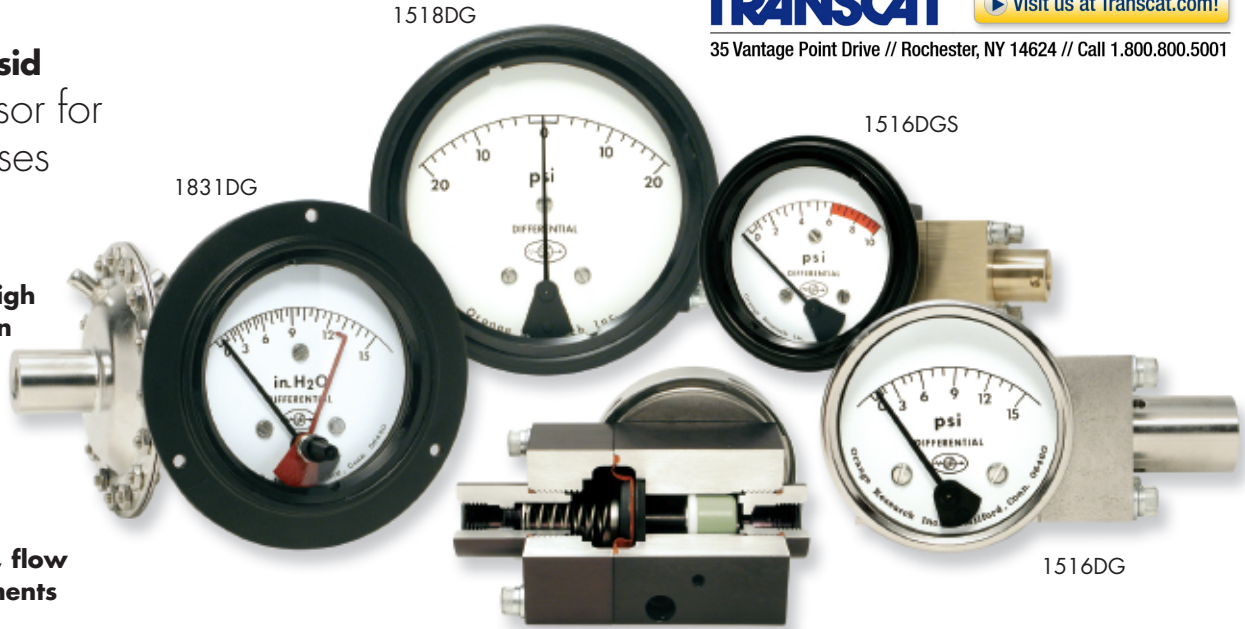


**0-5" H<sub>2</sub>O to 50 psid**  
Diaphragm Sensor for  
Liquids and Gases

**Features**

- **Low DP ranges at high line pressures, down to 0-5 inches H<sub>2</sub>O**
- **Rugged, weather-proof design**
- **Gauge, switch and transmitter versions**
- **Popular in filtration, flow and level measurements**



Select these diaphragm sensor models where low differential pressures exist. The popular 1516 model measures from 0-1 psid up to 0-50 psid. Our 1800 series models include our most sensitive diaphragm which can measure from 0-5" H<sub>2</sub>O to 0-8 psid. We also offer compound range models with a zero center.

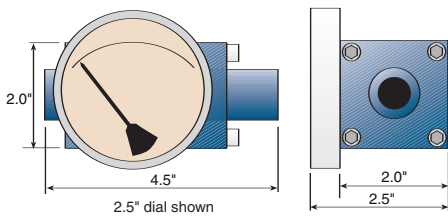
As differential pressure changes the diaphragm sensor magnet moves proportionally. This movement is tracked by a pointer magnet, which rotates, relaying the reading onto an easy-to-read 2.5 to 6 inch dial.

The diaphragm sensor separates the high and low-pressure ports making them popular for gases as well as liquids. There is no bypass between these ports as with our piston models.

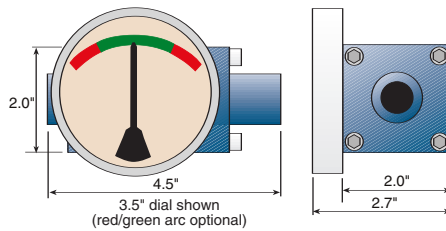
Select from a variety of options such as follower pointers, red arcs and mounting brackets along with switch, relay or transmitter outputs. More details on these models can be found on our DP introduction pages 2-5. Electrical details are on pages 26-27.

**Dimensions**

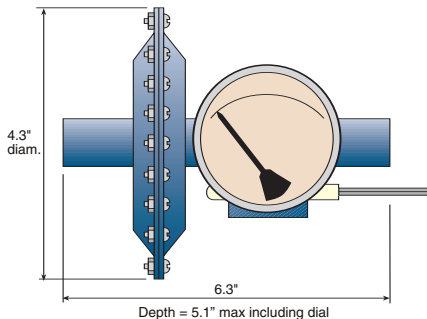
Detailed drawings on website.



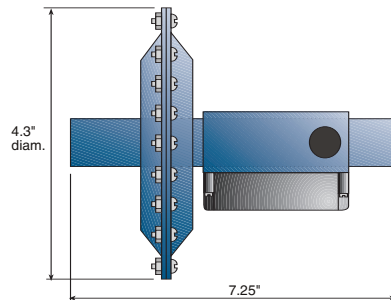
1516DG



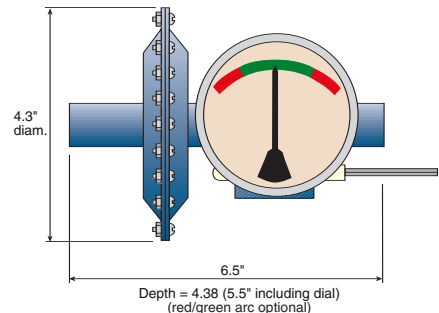
1518DG



1831DGS



1833DS



1835DGS

**Specifications** (Detailed Specification Sheets on Website)

Model	Differential pressure range	Maximum line pressure/temperature	Accuracy (F.S.) (Ascending)	Porting (Many porting types available)	Electrical Available*
<b>1516DG/DGS/DS</b> DG = Diaphragm Gauge DGS = Diaphragm Gauge-Switch DS = Diaphragm Switch	0-1 to 0-50 psid (0-0.07 to 0-3.3 bar)	1500 psig (100 bar)/200°F (93°C)	2%	1/4" NPT	1 or 2 switches Class 1 Div. 2
<b>1518DG/DGS/DS</b> DG = Diaphragm Gauge DGS = Diaphragm Gauge-Switch DS = Diaphragm Switch	8-0-8 to 50-0-50 psid (0.5-0-0.5 to 3.3-0-3.3 bar)	1500 psig (100 bar)/200°F (93°C)	2%	1/4" NPT	1 or 2 switches Class 1 Div. 2
<b>1831DG/DGS/DS</b> DG = Diaphragm Gauge DGS = Diaphragm Gauge-Switch DS = Diaphragm Switch	0-5" H <sub>2</sub> O to 0-8 psid (0-125 mm H <sub>2</sub> O to 0-0.5 bar)	Aluminum body 100 psig (7 bar)/200°F (93°C) Stainless steel body 150 psig (10 bar)/200°F (93°C)	2%	1/4" NPT	1 or 2 switches No enclosure
<b>1833DGS/DS/DGT/DT</b> DGS = Diaphragm Gauge-Switch DS = Diaphragm Switch DST = Diaphragm Switch-Trans. DT = Diaphragm Transmitter	0-5" H <sub>2</sub> O to 0-8 psid (0-125 mm H <sub>2</sub> O to 0-0.5 bar)	Aluminum body 100 psig (7 bar)/200°F (93°C) Stainless steel body 150 psig (10 bar)/200°F (93°C)	2%	1/4" NPT	1 or 2 switches 1 relay transmitter Class 1 Div. 2
<b>1835DG/DGS/DS</b> DG = Diaphragm Gauge DGS = Diaphragm Gauge-Switch DS = Diaphragm Switch	5-0-5" H <sub>2</sub> O to 8-0-8 psid (125 mm-0-125 mm H <sub>2</sub> O to 0.5-0-0.5 bar)	Aluminum body 100 psig (7 bar)/200°F (93°C) Stainless steel body 150 psig (10 bar)/200°F (93°C)	2%	1/4" NPT	1 or 2 switches No enclosure

\*NEMA 4X switch models have a 1/2 inch NPT conduit port as standard. A DIN 43650A-PG11 with mating connector is optional, rated IP65 & NEMA 4X

**How to Order**

Select from each of the applicable categories to construct a model number. Use the model number when ordering or obtaining additional information and pricing from Orange Research or your local distributor.

**Reordering? You must supply the Part Number from your instrument label.**

**Sample Model Number**

**1516DGS - 1A - 2.5B - A 0-1 psid, 1, 3, E**

1516DGS	1A	2.5B	A	0-1 psid	1, 3, E
Model	Pressure Body	Dial Case	Switch	Range	Options (more on pg. 5)
1516DG	<b>In-line ports:</b>	2.5B = 2.5" basic	A = SPST, N.O.	<b>Model 1516:</b>	1 = 1/2" NPT
1516DGS	1A = aluminum	3.5B = 3.5" basic	B = SPST, N.C.	0-1, 0-2, 0-3, 0-5, 0-8,	2 = plastic lens
1516DS	1C = 316 stainless steel	4.5B = 4.5" basic	C = SPDT	0-10, 0-15, 0-20, 0-25,	3 = liquid filled (glycerine)
1518DG	1E = brass	6B = 6.0" basic	A-A = 2 ea. - A	0-30, 0-35, 0-40, 0-50	4 = follower pointer
1518DGS			B-B = 2 ea. - B	psid	5 = Teflon coated magnet/spring
1518DS	<b>Change "1" above to</b>	<b>Change "B" to "F"</b>	C-C = 2 ea. - C	<b>Models 1831 &amp; 1833:</b>	6 = red arc (specify range)
1831DG	<b>"4" for back ports; to</b>	<b>above for flanged</b>	R2 = relay	0-5", 0-10", 0-15", 0-20",	7 = dual scale (specify both)
1831DGS	<b>"5" for bottom ports</b>	<b>dial case</b>	T1 = transmitter	0-25", 0-30", 0-40",	8 = high temperature
1831DS				0-50", 0-60", 0-80",	Special Diaphragm & Seals
1833DGS	<b>Back/bottom ports and</b>			0-100", 0-150",	(Buna-N standard):
1833DS	<b>brass N/A on 1800</b>			0-200" H <sub>2</sub> O; 0-8 psid	E = EPDM
1833DGT	<b>series</b>				F = Fluorosilicone
1833DT					V = Viton
1835DG				<b>For compound ranges,</b>	T = Teflon (o-ring seals only)
1835DGS				<b>see p 5</b>	
1835DS					