

## DOUBLE DIAPHRAGM TYPE

### SPECIAL FEATURES

- CE & ATEX APPROVED ELECTRICAL CONTACTS
- CASE & MEASURING SYSTEM IN SS
- STATIC PRESSURE UP TO 200 kg/cm<sup>2</sup> (ON REQUEST)
- SINGLE SIDE STATIC PRESSURE SUSTAINABLE
- DRY OR LIQUID FILLED
- ACCURACY UPTO 1.6 % F. S.
- STANDARD FOLLOWED IN GENERAL EN 837 - 3

### APPLICATIONS

HVAC/CHEMICALS/REFINERY/  
NUCLEAR/AEROSPACE/  
FERTILIZER/PETROCHEMICALS/  
PHARMACEUTICAL/POWER/  
CEMENT/SUGAR/FOOD &  
BEVERAGES/PULP/PAPER &  
ALLIED PROCESS INDUSTRIES.  
F. R. L. UNITS, WATER, AIR,  
HYDRAULIC, PNEUMATICS, VALVE  
POSITIONER, SUGAR MILLS &  
ALLIED PROCESS INDUSTRIES.



### SPECIFICATIONS

STANDARD VERSION : 100 mm & 150 mm

Accuracy	: ±1.6 % of F. S.
Ambient temperature	: - 25°C to + 65°C
Process temperature	: Max 100°C
Static pressure (On request)	: 10 kg/cm <sup>2</sup> up to ranges 600 mmWC : 40 kg/cm <sup>2</sup> for ranges 1000 mmWC to 2500 mmWC : 100 kg/cm <sup>2</sup> for ranges 4000 mmWC & above

Case & Bezel	: AISI 304 SS (Bayonet Type)
Diaphragm	: AISI 316L SS (Double Diaphragm)
Nuts & Bolts	: AISI 304 SS
Process Connection	: Body : AISI 316 SS : Thread Connection : 1/4" NPT(F) x 2 Nos.
Movement	: AISI 304 SS With Internal Limits stops for Min. & Max. Pressure

Protection	: IP 65
Dial	: Aluminium, black graduation on white background
Pointer	: Aluminium, black coloured, Micrometer Zero Adjustable
Window	: Shatterproof / Safety Glass
Case Gasket	: Neoprene
Element Chamber Filling	: Silicon Oil (Others on request)
Diaphragm Sealing Gasket	: Viton
Scale Amplitude	: 180° to 270° C (Depends on Range)

### GLYCERINE FILLED VERSION (OPTION PY)

Accuracy	: ±2.5 % of F. S.
Ambient Temperature	: Maximum 65°C
Process Temperature	: Maximum 65°C
Window	: Plexi Glass
Dampening Liquids	: Glycerine 99.7 % (others available as option)
Other Features	: Refer Specification of Standard Version

### ELECTRICAL CONTACT - DRY VERSION

Accuracy	: ±2.5 % of F. S.
Ambient Temperature	: Maximum 65°C
Process Temperature	: Maximum 65°C
Window	: Polycarbonate Dome
Dampening Liquid	: Dielectric Oil (Optional)
Electrical Contacts*	: Refer How to Order
Other Features	: Refer Specification of Standard Version

### TEMPERATURE EFFECT:

The variation of indication caused by effects of temperature is to be calculated by below formula; which is to be added in the specified accuracy while measurement :-

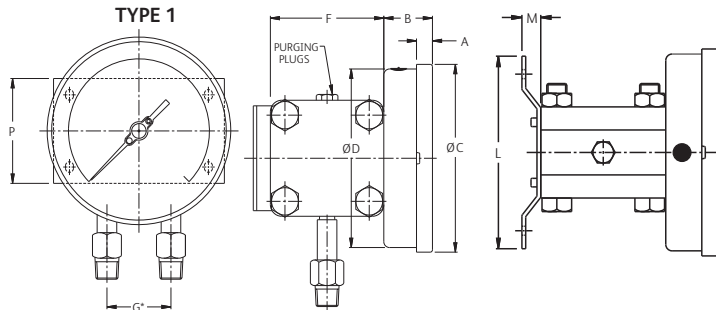
Formula :  $\pm 0.08 \times (t_2 - t_1) \% \text{ of F. S.}$

where  $t_1$  = reference temperature (+20° C) and  $t_2$  = ambient temperature in °C.

Note : The addition of mechanical electric contacts affects the accuracy of instruments such that 1 % becomes 1.5 %, 1.6 % becomes 2.4 % etc. (Add the 50 % of accuracy; If the contact is of the magnetically assisted type, this value can't be added within the ±5 % of setting point.)

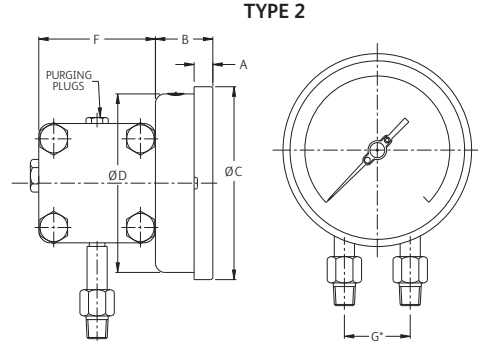
## DOUBLE DIAPHRAGM TYPE

**TYPE 1**



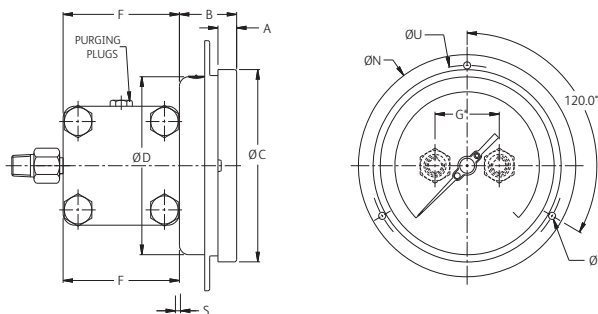
Code	NS (mm)	A	B	ØC	ØD	F	G*	M	L	P	Weight in gram (With Box)
F	100	12.5	47	111	100	99	54	15	150	90	6450.0
H	150	15	49	161	149	99	54	15	150	90	6750.0

**TYPE 2**



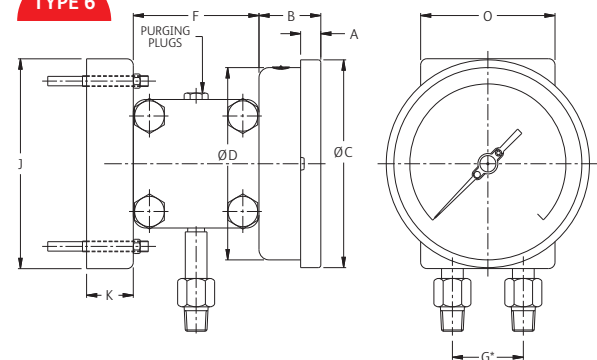
Code	NS (mm)	A	B	ØC	ØD	F	G*	Weight in gram (With Box)
F	100	12.5	47	111	100	99	54	6150.0
H	150	15	49	161	149	99	54	6400.0

**TYPE 12**



Code	NS (mm)	A	B	ØC	ØD	S	ØI	ØN	ØU	F	G*	Weight in gram (With Box)
F	100	12.5	47	111	100	1	6	134	118	99	54	6250.0
H	150	15	49	161	149	1	6	186	168	99	54	6500.0

**TYPE 6**



Code	NS (mm)	A	B	ØC	ØD	F	G*	J	K	O	Weight in gram (With Box)
F	100	12.5	47	111	100	99	54	161	39	101	7250.0
H	150	15	49	161	149	99	54	161	39	101	7450.0

Notes : • Drawings are not to scale. • All Dimensions are in mm. • NS = Nominal Size. • \*Connections shown in drawings are optional.

### RANGE TABLE

Note : STRATAA CONTROLS offers National / International Scales like kPa, MPa, bar, psi, kg/cm<sup>2</sup>, mbar, MWC, inWC & Dual Scale like kPa with psi, kPa with bar, bar with psi or Equivalent scales as per the requirement can be provided on request. Scales for floor are also available.

Following are the example tables for kg/cm<sup>2</sup> & mm WC

### PRESSURE RANGE (Single Scale)

Low Pressure			High Pressure		
mmWC	mmWC	mmWC	kg/cm <sup>2</sup>	kg/cm <sup>2</sup>	kg/cm <sup>2</sup>
0/250*	0/1000	0/4000	0/1	0/2.5	0/10
0/400*	0/1600	0/6000	0/1.6	0/4	0/16
0/600	0/2500		0/2	0/6	0/25

### ACCESSORIES (Refer Datasheet for complete specifications)

\*Accuracy shall be ±2.5% of F. S. for ascending readings.

Note : Other Scale are available on customer request.

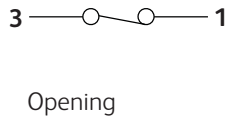
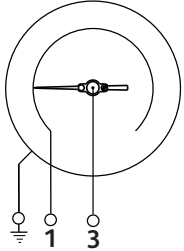
\* MANIFOLDS

\* Refer catalogue for valves and manifolds

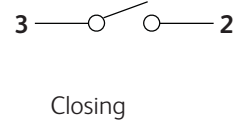
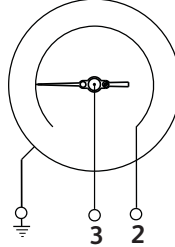
## WIRING DIAGRAMS FOR ELECTRIC CONTACTS

### SINGLE CONTACT

1 NO

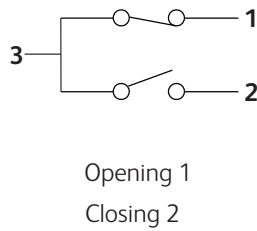
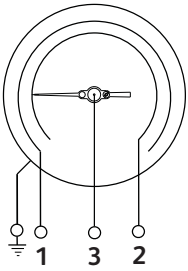


1 NC

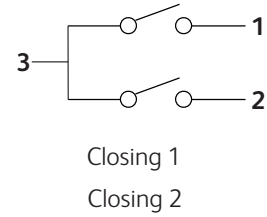
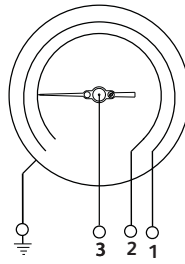


### DOUBLE CONTACT

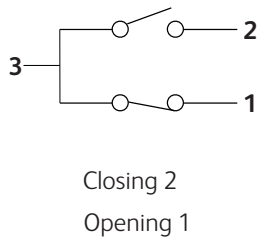
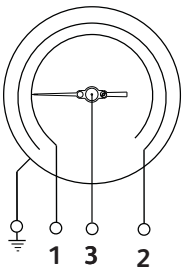
1 NO + 1 NC



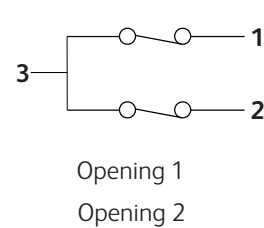
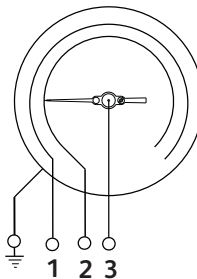
1 NC + 1 NC



1 NC + 1 NO

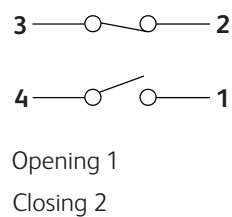
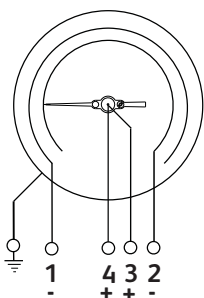


1 NO + 1 NO

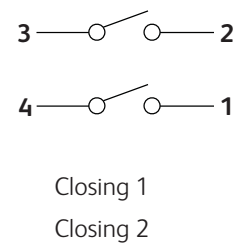
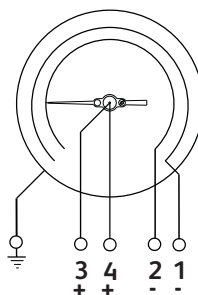


### INDEPENDENT DOUBLE CONTACT

1 NO + 1 NC



1 NC + 1 NC



**BASIC MODEL**

2211 PG	DDT
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## HOW TO ORDER

[It is recommended to use manifolds along with Differential Pressure Gauge for better performance & safety.]

<b>CODE</b>	F	H
<b>NOMINAL SIZE (mm)</b>	100	150

<b>TYPE OF MOUNTING</b>	
1	WALL / SURFACE / PROJECTION MOUNTING WITH BOTTOM ENTRY
2	DIRECT BOTTOM ENTRY
6	2" PIPE / YOKE MOUNTING WITH BOTTOM ENTRY (Mounting bracket will be provided of steel epoxy painted.)
12	CENTER BACK ENTRY WITH FRONT FLANGE

<b>PROCESS CONNECTION (* These connections are provided through adaptors.)</b>		
4BM	1/4" NPT (M) x 1/2" BSP (M) X 2 Nos.*	4BF 1/4" NPT (M) x 1/2" BSP (F) X 2 Nos.*
4NM	1/4" NPT (M) x 1/2" NPT (M) X 2 Nos.*	4NF 1/4" NPT (M) x 1/2" NPT (F) X 2 Nos.*
		2NF 1/4" NPT (F) (Standard)

Note: 1) For selection of Diaphragm Seals, refer individual data sheets.  
(THE CAPILLARY LENGTH SHALL BE MAXIMUM UP TO 3 METERS & RANGE SHALL BE ABOVE 1 kg/cm<sup>2</sup>.)  
2) Connections like Metric/ PT/ PF/ Flaired/ UNF/ G/ R etc can be provided on request.

<b>DIAPHRAGM</b>	
<b>UJ</b>	AISI 316L SS (Standard)
<b>UM</b>	MONEL

<b>SIDE CHAMBER (WETTED PARTS)</b>			
<b>NF</b>	AISI 304 SS (Standard)	<b>RB</b>	AISI 316SS
		<b>RD</b>	MONEL

<b>CENTRAL CHAMBER</b>			
<b>TP</b>	AISI 316 SS (Standard)	<b>TQ</b>	AISI 304 SS
		<b>TR</b>	MONEL

<b>FILLING FLUID</b>	
<b>UX</b>	SILICON DC 200 [-40 TO 205 °C / -40 TO 401° F] (Standard)

<b>RANGE</b>	
REFER RANGE TABLE	

<b>OPTIONS</b>			
<b>PS</b>	AISI 316 SS CASE & BEZEL	<b>TF</b>	CONFORMITY AS PER NACE MR 0175
<b>PY</b>	DAMPENING LIQUID GLYCERINE	<b>PU</b>	CALIBRATION CERTIFICATE TRACEABLE TO NATIONAL/INTERNATIONAL STANDARDS
<b>QA</b>	DAMPENING LIQUID SILICON OIL**	<b>PW</b>	FIVE POINT CALIBRATION CERTIFICATE
<b>RH</b>	CUSTOM DESIGNED DIAL	<b>GH</b>	MATERIAL TEST CERTIFICATES#
<b>SW</b>	DIAL TAG MARKING	<b>JU</b>	2" PIPE/YOKE MOUNTING BRACKET & 'U' CLAMP (AISI 304 SS)
<b>SX</b>	SS TAG PLATE	<b>FN</b>	2" PIPE/YOKE MOUNTING BRACKET & 'U' CLAMP (AISI 316 SS)
<b>SJ</b>	MAXIMUM READING POINTER WITH PLEXI GLASS (FOR DRY VERSION)*	<b>ZZ</b>	DIELECTRIC OIL FILLED**

\* For ranges 2.5 kg/cm<sup>2</sup> and above.\*\* Gasket & Plug of NBR. Refer Price List for Viton.  
# MATERIAL TEST CERTIFICATES WILL BE PROVIDED FOR WETTED PARTS ONLY WITH CHEMICAL COMPOSITION TESTING. FOR OTHERS, PLEASE CONSULT FACTORY.

<b>ELECTRIC CONTACTS (CE &amp; ATEX APPROVED)</b>			
<b>A) SINGLE INSULATED MAGNETIC SNAP ACTION TYPE* (230 V AC, 1 Amp.)(48 V DC, 0.5 Amp.) AVAILABLE FOR 1 kg/cm<sup>2</sup> &amp; ABOVE</b>			
<b>RJ</b>	Single; NORMALLY CLOSED (1 NC)	<b>YW</b>	Single; NORMALLY OPEN (1 NO)
<b>RL</b>	Double; NORMALLY CLOSED + NORMALLY OPEN (1 NC + 1 NO)	<b>YX</b>	Double; NORMALLY CLOSED + NORMALLY OPEN (1 NC + 1 NO)
<b>RM</b>	Double; NORMALLY OPEN + NORMALLY CLOSED (1 NO + 1 NC)	<b>YY</b>	Double; NORMALLY OPEN (BOTH NO)
<b>RN</b>	Double; NORMALLY CLOSED (BOTH NC)	<b>YZ</b>	Double; NORMALLY CLOSED (BOTH NC)
<b>RO</b>	Double; NORMALLY OPEN (BOTH NO)	<b>ZA</b>	Double; NORMALLY OPEN + NORMALLY CLOSED (1 NO + 1 NC)
<b>RU</b>	BOOSTER WITH RELAY FOR CURRENT UP TO 5 Amp.		
<b>RA</b>	SPDT		
<b>RC</b>	DPDT		
* FOR DOUBLE INSULATED ELECTRICAL CONTACTS, CONSULT FACTORY FOR PRICE & DELIVERY.			

FOR OTHER OPTIONAL ITEMS, PLEASE CONTACT FACTORY FOR DELIVERY AND MINIMUM QUANTITY OF ORDER.  
Note : Specifications and dimensions given in this product catalogue represents the state of engineering at the time of printing. Modifications may take place and materials specified may be replaced by others without prior notice.