



SPECIAL FEATURES

- CE & ATEX APPROVED ELECTRICAL CONTACTS
- CASE & MEASURING SYSTEM IN SS
- STATIC PRESSURE UP TO 200 kg/cm² (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

CHEMICALS / REFINERY / NUCLEAR / AEROSPACE / FERTILIZER
/ PETROCHEMICALS / PHARMACEUTICAL / POWER / CEMENT /
SUGAR / FOOD & BEVERAGES / PULP / PAPER & 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 ² up to ranges 600 mmWC : 40 kg/cm ² for ranges 1000 mmWC to 2500 mmWC : 100 kg/cm ² for ranges 4000 mmWC & above

☞ Static Pressure up to 250 kg/cm² on request.

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° (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

* Please specify contact set points while ordering.

Temperature effect:

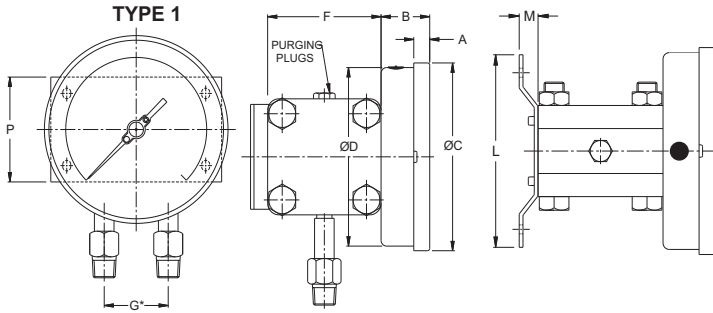
The variation of indication caused by effects of temperature is to be calculated by below formula; which is to be added in the specified accuracy while measurement :- Formula : $\pm 0.08 \times (t_2 - t_1) \%$ of F. S.
where t₁ = reference temperature (+20°C) and t₂ = ambient temperature in °C.

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.)

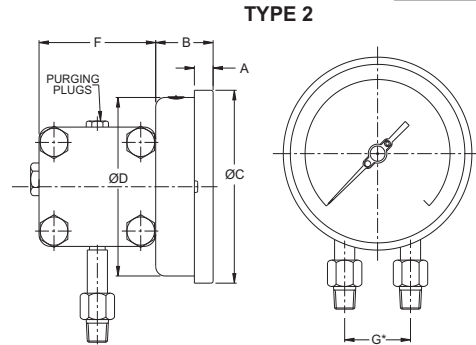
SELECTION TABLE FOR DIAPHRAGM SEALS

DOUBLE DIAPHRAGM TYPE

AQ

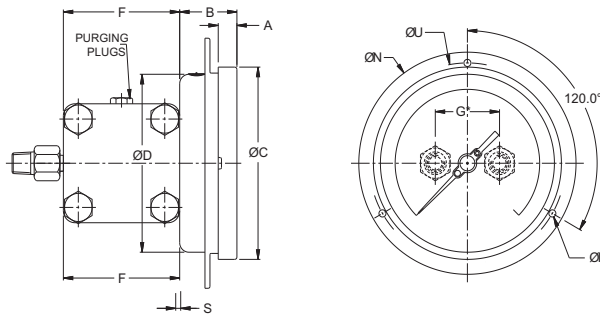


NS	A	B	ØC	ØD	F	G*	M	L	P	Weight in gram (With Box)
100	12.5	47	111	100	99	54	15	150	90	6450.0
150	15	49	161	149	99	54	15	150	90	6750.0



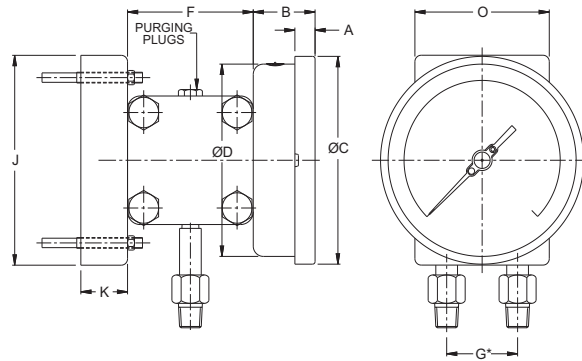
NS	A	B	ØC	ØD	F	G*	Weight in gram (With Box)
100	12.5	47	111	100	99	54	6150.0
150	15	49	161	149	99	54	6400.0

TYPE 12



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

TYPE 6



NS	A	B	ØC	ØD	F	G*	J	K	O	Weight in gram (With Box)
100	12.5	47	111	100	99	54	161	39	101	7250.0
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 : Waaree offers National / International Scales like kPa, MPa, bar, psi, kg/cm², 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/cm² & mmWC

PRESSURE RANGE (Single Scale)

Low Pressure			High Pressure		
mmWC	mmWC	mmWC	kg/cm ²	kg/cm ²	kg/cm ²
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

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

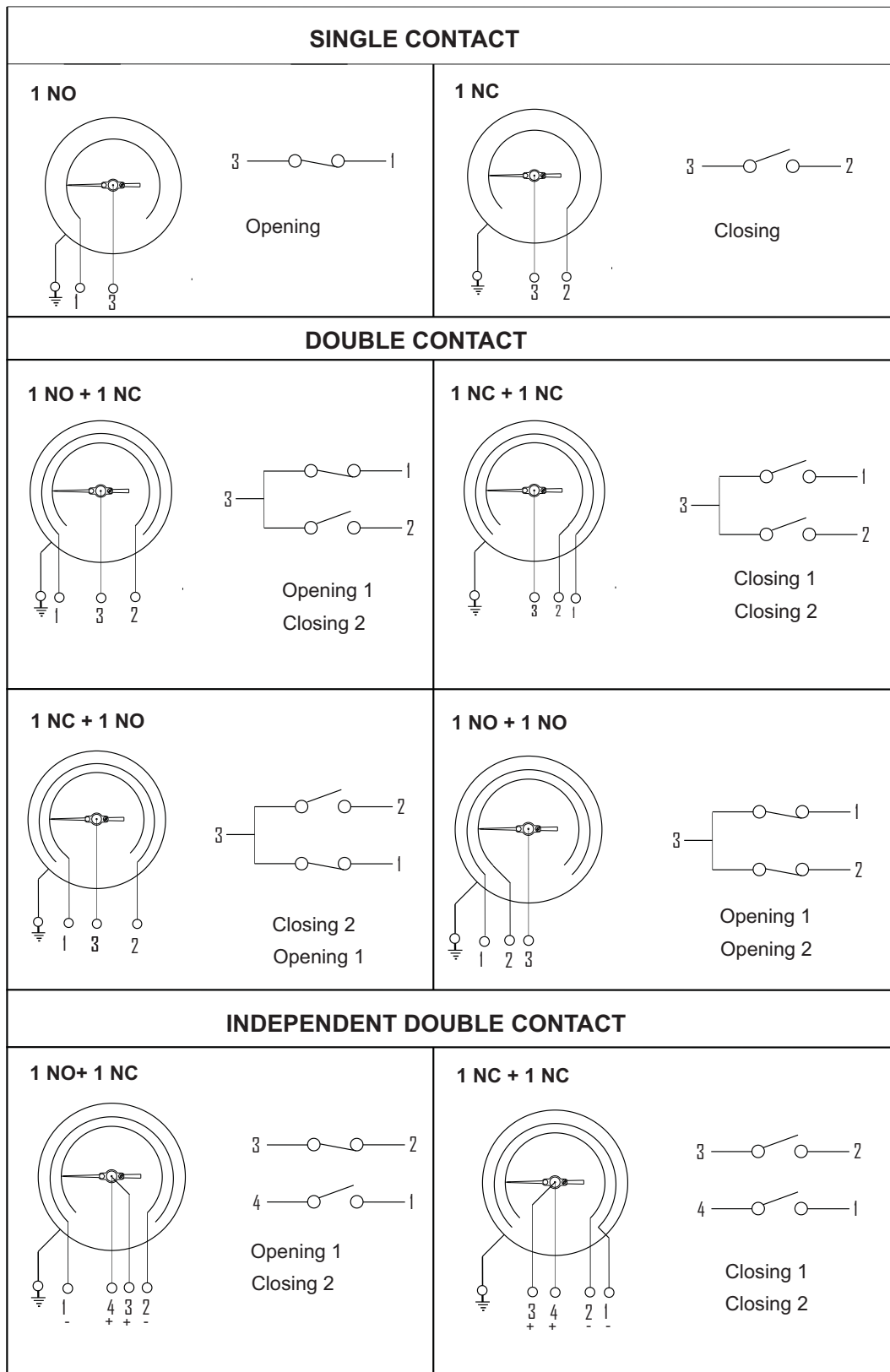
Note : Other Scale are available on customer request.

ACCESSORIES (Refer Datasheet for complete specifications)

* MANIFOLDS

* Refer catalogue for valves and manifolds

WIRING DIAGRAMS FOR ELECTRIC CONTACTS



HOW TO ORDER

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

Example

BASIC MODEL

CODE	F	H	AQ
NOMINAL SIZE	100 mm	150 mm	X
TYPE OF MOUNTING			
1 WALL / SURFACE / PROJECTION MOUNTING WITH BOTTOM ENTRY			X
2 DIRECT BOTTOM ENTRY			OR
6 2" PIPE / YOKE MOUNTING WITH BOTTOM ENTRY (Mounting bracket will be provided of steel epoxy painted.)			XX
12 CENTER BACK ENTRY WITH FRONT FLANGE			

PROCESS CONNECTION (* These connections are provided through adaptors.)

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.*	2NF 1/4" NPT (F) (Standard)	XXX
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.*		

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/cm².)

2) Connections like Metric/ PT/ PF/ Flaired/ UNF/ G/ R etc can be provided on request.

DIAPHRAGM

UJ AISI 316L SS (Standard)	UM MONEL		XX
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CENTRAL CHAMBER

NF AISI 304 SS (Standard)	RB AISI 316 SS	RD MONEL	XX
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SIDE CHAMBER (WETTED PARTS)

TP AISI 316 SS (Standard)	TQ AISI 304 SS	TR MONEL	XX
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FILLING FLUID

UX SILICON DC 200 [-40 TO 205 °C / -40 TO 401 °F] (Standard)			XX
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RANGE

REFER RANGE TABLE

OPTIONS

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

* For ranges 2.5 kg/cm² 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.

ELECTRIC CONTACTS (C€ & ATEX APPROVED)

(FOR DRY VERSION, WITH INGRESS PROTECTION UP TO IP 55 & POLY CARBONATE DOME AS A WINDOW.)

A) SINGLE INSULATED MAGNETIC SNAP ACTION TYPE*
(230 V AC, 1 Amp.)(48 V DC, 0.5 Amp.)
(AVAILABLE FOR 1 kg/cm² & ABOVE)

B) INDUCTIVE TYPE (220 V AC, 0.4 Amp.)
(AVAILABLE FOR 1000 mmWC & ABOVE)

RJ Single; NORMALLY CLOSED (1 NC)	YW Single; NORMALLY OPEN (1 NO)		XX
RK Double; NORMALLY CLOSED + NORMALLY OPEN (1 NC +1 NO)	YV Single; NORMALLY CLOSED (1 NC)		
RL Single; NORMALLY OPEN (1 NO)	YX Double; NORMALLY CLOSED + NORMALLY OPEN (1 NC +1 NO)		
RM Double; NORMALLY OPEN + NORMALLY CLOSED (1 NO + 1 NC)	YY Double; NORMALLY OPEN (BOTH NO)		
RN Double; NORMALLY CLOSED (BOTH NC)	YZ Double; NORMALLY CLOSED (BOTH NC)		
RO Double; NORMALLY OPEN (BOTH NO)	ZA Double; NORMALLY OPEN + NORMALLY CLOSED (1 NO + 1 NC)		
RU BOOSTER WITH RELAY FOR CURRENT UP TO 5 Amp.			
RA SPDT			
RC DPDT			

* FOR DOUBLE INSULATED ELECTRICAL CONTACTS, CONSULT FACTORY FOR PRICE & DELIVERY.

Ordering Example: AQ - X - X OR XX - XXX - XX - XX - XX - XX - 0/2 kg/cm² - XX - XX

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.

Notes : • Drawings are not to scale. • All Dimensions are in mm. • NS = Nominal Size.