



### Special Features

- Stainless steel case & measuring system
- Socket directly welded to case
- Protection IP 66 / IP 67
- Dry or fillable version
- Accuracy upto 0.5% F. S. (optional)
- Standard followed in general EN 837-1

### Application

- Food & beverage
- Pharmaceutical
- Cryogenics
- Chemical
- Petrochemical industries
- Conventional
- Diesel engines & refrigerating plants
- Suitable for corrosive environments
- Gaseous or liquid media that will not obstruct the pressure system
- Nuclear power plants
- Pumps
- Hydro-cleaning machines
- Presses
- Engine
- Compressors
- Turbines

### Specifications

#### Standard Version : 63 mm, 100 mm & 150 mm :

Accuracy	:	±1.0% of F.S.for NS 100 mm & 150 mm
	:	±1.6% of F.S.for NS 63 mm
Ambient temperature	:	- 25°C to + 65°C
Process temperature	:	Max 300°C
Operating pressure	:	75% of Scale Value
Over pressure limit	:	≤ 100 bar : 125% of Max. Scale Value
	:	> 100 to ≤ 600 bar : 115% of Max. Scale Value
	:	> 600 to ≤ 1600 bar : 110% of Max. Scale Value
Case & Bezel	:	AISI 304 SS (Snap Lock Type)
Bourdon	:	AISI 316L SS
Socket	:	AISI 316L SS (Directly Welded to Case)
Movement	:	AISI 304 SS
Joints	:	Tig Argon Arc Welding
Protection	:	IP 65
Dial	:	Aluminum, black graduation on white background
Pointer	:	Aluminum, black coloured Fixed
Window	:	Sheet Glass
Blow off Disc	:	Neoprene
Gasket & Filling Plug	:	Neoprene

#### Dry but fillable version (option FG)

Fillable Dampening Liquid	:	Glycerin 99.7% (Option - FG)
Ambient Temperature	:	Maximum 65°C
Process Temperature	:	Maximum 65°C
Window	:	Plexi Glass
Other Features	:	Refer Specification of Standard Version

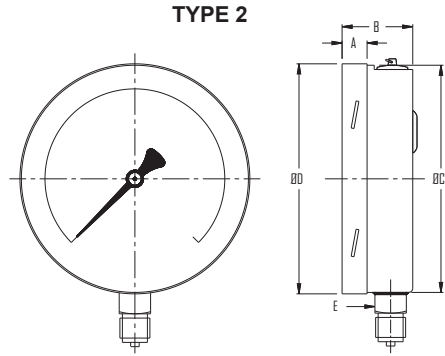
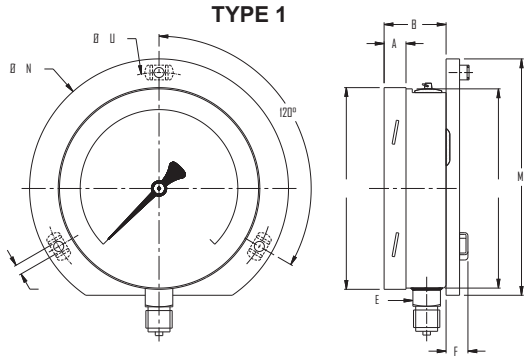
#### Glycerine filled version (option PY)

Accuracy	:	±1.0% of F.S. & ± 1.6% of F.S. for NS 63mm
Ambient Temperature	:	Maximum 65°C
Process Temperature	:	Maximum 65°C
Window	:	Plexi Glass
Dampening Liquids	:	Glycerin 99.7% (others available as option)
Other Features	:	Refer Specification of Standard Version

#### Temperature effect :

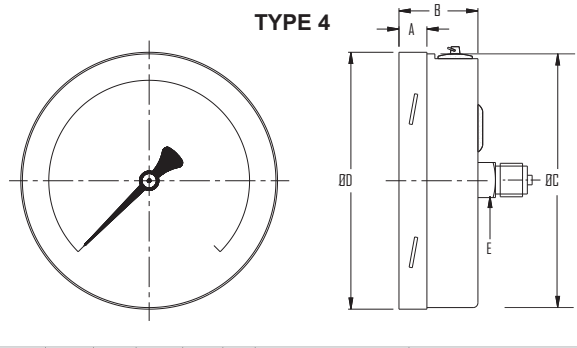
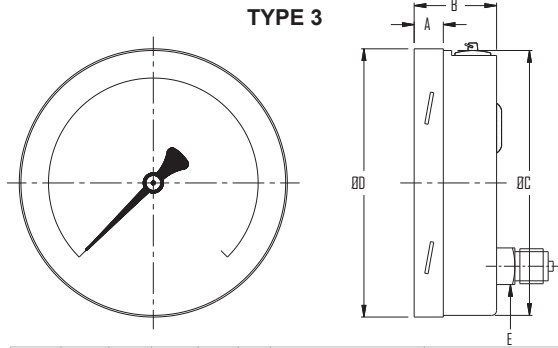
The variation of indication caused by effects of temperature is to be calculated by below formula; which is to be added in the specified accuracy while measurement :- Formula :  $\pm 0.04 \times (t_2 - t_1) \% \text{ of F. S.}$  where  $t_1$  = reference temperature (+20°C) and  $t_2$  = ambient temperature in °C.

**Range Table**



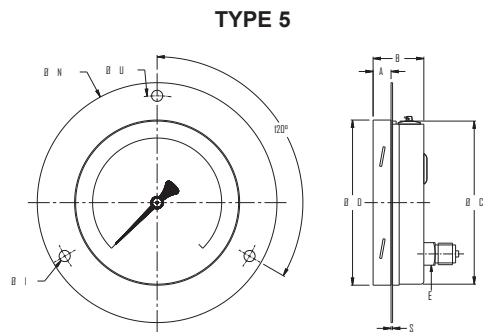
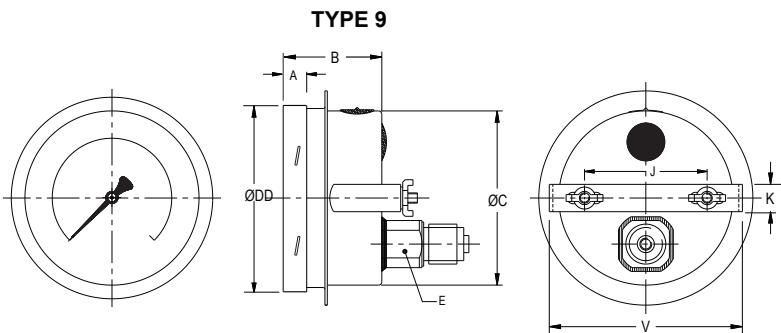
NS	A	B	ØC	ØD	E	F	ØI	ØN	ØU	M	Weight in gram (With Box)	Weight in gram (With Glycerin & Box)
63	12	32	61.7	64	14	10	3.6	86	75	80	260.0	370.0
100	17.5	49	99	101	22	15	4.8	132	116	126	645.0	885.0
150	17.5	51.5	159	162	22	15	5.8	196	178	188	1280.0	1920.0

NS	A	B	ØC	ØD	E	Weight in gram (With Box)	Weight in gram (With Glycerin & Box)
63	12	32	61.7	64	14	200.0	310.0
100	17.5	49	99	101	22	550.0	790.0
150	17.5	51.5	159	162	22	1060.0	1700.0



NS	A	B	ØC	ØD	E	Weight in gram (With Box)	Weight in gram (With Glycerin & Box)
63	12	32	61.7	64	14	200.0	310.0
100	17.5	49	99	101	22	550.0	790.0
150	17.5	51.5	159	162	22	1060.0	1700.0

NS	A	B	ØC	ØD	E	Weight in gram (With Box)	Weight in gram (With Glycerin & Box)
63	12	32	61.7	64	14	200.0	310.0
100	17.5	49	99	101	22	550.0	790.0
150	17.5	51.5	159	162	22	1060.0	1700.0



NS	A	B	ØC	ØD	E	J	K	V	Weight in gram (With Box)	Weight in gram (With Glycerin & Box)
63	12	32	61.7	64	14	46.5	15	74	280.0	390.0
100	17.5	49	99	101	22	72	16	108	750.0	990.0
150	17.5	51.5	159	162	22	106.5	16	166	1220.0	1860.0

NS	A	B	ØC	ØD	E	ØI	ØN	ØU	S	Weight in gram (With Box)	Weight in gram (With Glycerin & Box)
63	12	32	61.7	64	14	3.6	86	75	1	250.0	360.0
100	17.5	49	99	101	22	4.8	132	116	1	630.0	870.0
150	17.5	51.5	159	162	22	5.8	196	178	1	1180.0	1820.0

Notes : • Drawings are not to scale. • All Dimensions are in mm . • NS = Nominal Size  
 • Weights mentioned are approximate and for standard product. • Weight can be different after selection of options.

Design and specifications subject to change without notice

**Range Table**

Note : We offer Pressure, Vacuum and Compound ranges in Scales like kPa, MPa, bar, psi, kg/cm<sup>2</sup> & Dual Scale like kPa with psi, kPa with bar, bar with psi or scales as per the requirement can be provided on request. Following are the example tables for kg/cm<sup>2</sup> & psi scales

**Pressure**
**Single scale (kg/cm<sup>2</sup> or bar)**

0/0.6	0/4	0/25	0/160	0/1000
0/1	0/6	0/40	0/250	0/1600 *
0/1.6	0/10	0/60	0/400	
0/2.5	0/16	0/100	0/600	(* For NS 100 mm & 150 mm)

**Dual scale ( psi with kg/cm<sup>2</sup> ) or psi with bar**

psi	kg/cm <sup>2</sup>	psi	kg/cm <sup>2</sup>	psi	kg/cm <sup>2</sup>
0/15	0/1	0/400	0/28	0/4000	0/280
0/30	0/2	0/500	0/35	0/5000	0/350
0/60	0/4	0/600	0/40	0/6000	0/400
0/100	0/7	0/1000	0/70	0/10000	0/700
0/150 0/220	0/10	0/1500	0/100	0/15000	0/1000
0/300	0/16	0/2200	0/160	0/22000	0/1600 *
	0/20	0/3000	0/200		(* For NS 100 mm & 150 mm)

**Vacuum & Compound**
**Single scale (kg/cm<sup>2</sup>)**

- 1/0	- 1/1.5	- 1/5	- 1/15
- 1/0.6	- 1/3	- 1/9	- 1/24

**Dual scale (inHg with psi & mmHg with kg/cm<sup>2</sup>)**

inHg with psi	mmHg with kg/cm <sup>2</sup>	- inHg with	mmHg with kg/cm <sup>2</sup>	inHg with psi	mmHg with kg/cm <sup>2</sup>
- 30/0	- 760/0	- 30/60	- 760/3	- 30/200	- 760/15
- 30/15	- 760/1	- 30/100	- 760/6	- 30/300	- 760/20
- 30/30	- 760/2	- 30/150	- 760/9	- 30/350	- 760/24

**Receiver**

Linear Scale	Square Root Scale
(0 - 100% Internal Scale)	( 0 - 10 Sq - Root Internal Scale )
External Scale	External Scale
0.2 - 1 kg/cm <sup>2</sup> or 3 - 15 psi	0.2 - 1 kg/cm <sup>2</sup> or 3 - 15 psi
(0-100% linear scale)	(0.2 - 1 kg/cm <sup>2</sup> )

**Freon (with temperature scale)**
**Ammonia (with temperature scale)**

Note : For temperature scales, please provide refrigerant name.

Range ( psi )	( kg/cm <sup>2</sup> )	( psi )
-30 inHg - 150	0-300	-30 inHg - 150
-30 inHg - 300	0-500	-30 inHg - 300
		0 - 300

**Accessories (Refer datasheet for complete specifications)**

<b>EB</b> Cooling tower	* Needle valve	<b>EH</b> Siphon
<b>ED</b> Overload protector (gauge saver)**	<b>EG</b> Snubber	<b>EC</b> Gauge cock

\* Refer catalogue for valves and manifolds \*\* For Pressure Ranges.

How To Order					Example	
<b>Basic Model</b>					BE	
<b>Code</b>						
<b>Nominal Size</b>						
	<b>D</b>	<b>F</b>	<b>H</b>		X	
	63 mm	100 mm	150 mm			
<b>Type of Mounting</b>						
<b>1</b>	Wall / surface / projection	<b>4</b>	Direct center back entry		X	
	Mounting with bottom entry	<b>5</b>	Lower back entry with front flange			
<b>2</b>	Direct bottom entry	<b>9</b>	Back entry with mounting bracket			
<b>3</b>	Direct lower back entry					
<b>Gauge Connection</b> (# Applicable for NS 63 mm)						
<b>2BM</b>	1/4" BSP (M) Standard#	<b>2NM</b>	1/4 " NPT (M) Sstandard#	<b>4TM</b>	1/2 " BSPT (M)*	XXX
<b>3BM</b>	3/8" BSP (M) Standard*	<b>4NM</b>	1/2" NPT (M) Standard*	<b>4MM</b>	M 20 x 1.5 (M)*	
<b>4BM</b>	1/2" BSP (M) Standard*					
* These connections will be provided through adaptors for NS 63 mm. Consult factory for minimum order quantity, price & delivery.						
Note : Connections like Metric/ PT/ PF/ Flaired/ UNF/ G/ R etc can be provided on request.						
<b>Range</b>						
Refer range table					0/10 kg/cm <sup>2</sup>	
<b>Optional extras</b>						
<b>OA</b>	Accuracy ± 0.5% of F. S. (for dry version)#	<b>TB</b>	Helium leak test		XX	
<b>TI</b>	Monel bourdon & socket (Monel version)**#	<b>TF</b>	Conformity as per NACE standard			
<b>FL</b>	Integral dampening screw (Monel)**	<b>PW</b>	Five point factory calibration certificate			
<b>FS</b>	Fillable liquid silicon oil*	<b>SG</b>	Oxygen service (dry version)			
<b>FG</b>	Fillable liquid glycerine	<b>RH</b>	Custom designed dial			
<b>PY</b>	Dampening liquid glycerine filled Dampening	<b>QB</b>	Integral dampening screw (AISI 316 SS)			
<b>QA</b>	liquid silicon oil filled*	<b>SA</b>	Internal overpressure stop#			
<b>RR</b>	Enclosure protection IP 66	<b>SB</b>	Internal vacuum stop#			
<b>RE</b>	Enclosure protection IP 67	<b>ZB</b>	Receiver range#			
<b>RW</b>	Plexi glass	<b>ZC</b>	Freon range (with temperature scale)			
<b>RX</b>	Shatterproof/safety glass	<b>ZD</b>	Ammonia range (with temperature scale)			
<b>RZ</b>	Toughened glass	<b>CK</b>	Epoxy painted case & bezel			
<b>SF</b>	Movement with dampening jelly	<b>ZM</b>	Electro polished case & bezel			
<b>ZL</b>	Over range protection 150% of F. S.	<b>KA</b>	ON - OFF type vent plug			
<b>SL</b>	Pointer slotted zero adjustable	<b>GH</b>	Material test certificates***			
<b>SX</b>	SS tag plate	<b>PU</b>	Calibration certificate traceable to National / International standards			
<b>SW</b>	Dial tag marking#	<b>SK</b>	Micrometer '0' adjustment pointer#			

#For NS 100 mm & 150 mm

\* Gasket, BOD & Filling plug of Viton.

\*\*Integral dampening screw will be in monel if ordered. Refer option FL.

\*\*\* Material test certificates will be provided for wetted parts only with chemical composition testing. For others, please consult factory.

**Ordering Example: BE . X . X . XXX . 0/10 kg/cm<sup>2</sup> . 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.