

NESS

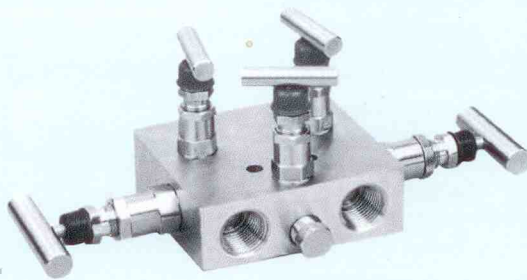
PRESSURE GAUGE
DRAFT GAUGE
CHEMICAL SEAL PRESSURE GAUGE
DIFFERENTIAL PRESSURE GAUGE
GAUGE ACCESSORIES
BIMETALLIC TEMPERATURE GAUGE

LOW PRICE

DEPENDABLE

HIGH REPEATABILITY

HIGH ACCURACY



NESS NESSTECH INC.



SPECIAL FEATURES

- STAINLESS STEEL CASE & MEASURING SYSTEM
- SOCKET & CASE WELDED
- DRY OR LIQUID FILLED
- ACCURACY UPTO 0.5%
- STANDARD FOLLOWED IN GENERAL EN 837-1 / & ANSI / ASME B40.1 FOR NS 125 MM

APPLICATIONS

FOOD & BEVERAGE, PHARMACEUTICAL, CRYOGENICS, CHEMICAL & PETROCHEMICAL INDUSTRIES, CONVENTIONAL & NUCLEAR POWER PLANTS, PUMPS, HYDRO-CLEANING MACHINES, PRESSES, ENGINE COMPRESSORS, TURBINES, DIESEL ENGINES & REFRIGERATING PLANTS.



SPECIFICATIONS

STANDARD VERSION : 63mm(AD), 100mm, 125mm, 150mm

Accuracy	: $\pm 1.6\%$ of F.S. ($\pm 1.0\%$ Available on Request)
Ambient temperature	: -25 to 65°C
Process temperature	: Max 300°C
Operating pressure	: 75% of the Scale Value
Over pressure limit	: 30% for Pressure Ranges upto $600\text{kg} / \text{cm}^2$
	: 15% for Pressure Ranges above $600\text{kg} / \text{cm}^2$

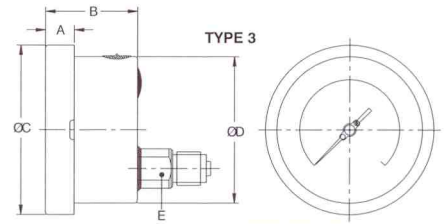
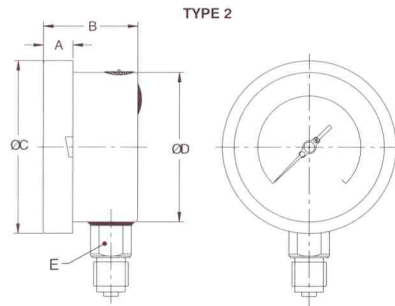
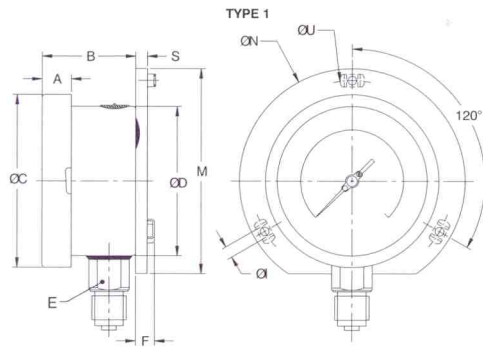
Case	: AISI 304 SS
Ring	: AISI 304 SS, Bayonet Type
Bourdon	: AISI 316L SS
Socket	: AISI 316L SS (Directly Welded to Case)
Movement	: AISI 304 SS
Joints	: Tig Argon Arc Welding

Protection	: IP 65
Dial	: Aluminium, black graduation on white background
Pointer	: Aluminium, black coloured Micrometer zero adjustable
Window	: Safety Glass
Blow off Disc	: Neoprene
Gasket	: Neoprene

GLYCERINE FILLED VERSION (OPTION PY)

Accuracy	: $\pm 1.6\%$ of F.S.
Ambient Temperature	: Maximum 65°C
Process Temperature	: $+15^{\circ}\text{C} / 65^{\circ}\text{C}$
Window	: Plexi Glass
Dampening Liquids	: Glycerine 98% (others available as option)
Other Features	: Refer Specification of Standard Version

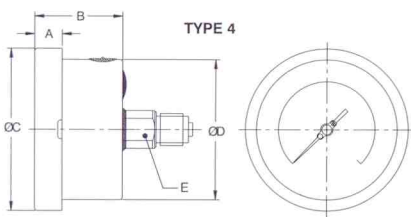
AL MODEL



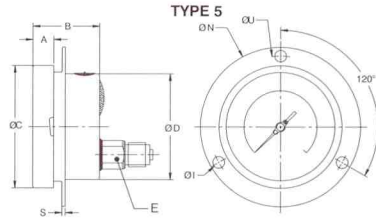
NS	A	B	OC	OD	E	M	S	F	OI	OU	WEIGHT(g)	
100	12.5	48	110	100	22	128	6	14.5	6	134	118	715.0
125	14.5	49	129	119	22	-	4	14.5	6	152	138	820.0
150	15	49	161	149	22	174	5.5	14.5	6	186	168	1240

NS	A	B	OC	OD	E	WEIGHT(g)
100	12.5	48	110	100	22	630.0
125	14.5	49	129	119	22	732.0
150	15	49	161	149	22	1060

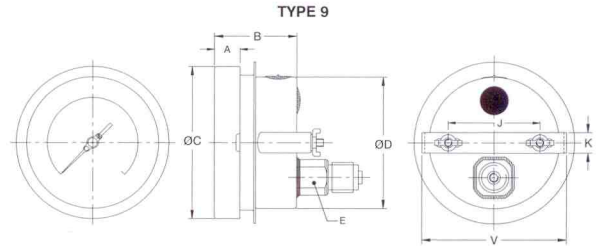
NS	A	B	OC	OD	E	WEIGHT(g)
100	12.5	48	110	100	22	625.0
125	14.5	49	129	119	22	734.0
150	15	49	161	149	22	998.0



NS	A	B	OC	OD	E	WEIGHT(g)
100	12.5	48	110	100	22	640.0



NS	A	B	OC	OD	E	S	OI	OU	WEIGHT(g)	
100	12.5	48	110	100	22	1	6	135	118	710.0
125	14.5	49	129	119	22	4	6	152	138	815.0
150	15	49	161	149	22	5	6	186	168	1160.0



NS	A	B	OC	OD	E	J	K	V	WEIGHT(g)
100	12.5	48	110	100	22	71.82	16	110	750.0
125	14.5	49	129	119	22	80	16	129.5	891.0
150	15	49	161	149	22	105.35	16	158	1220.0

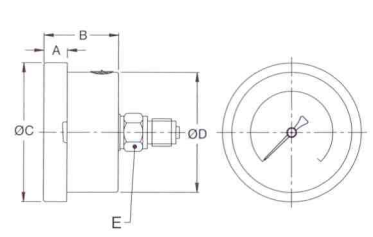
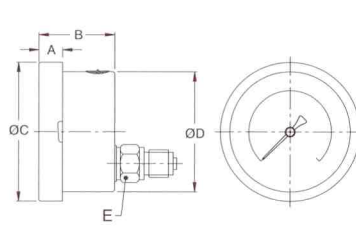
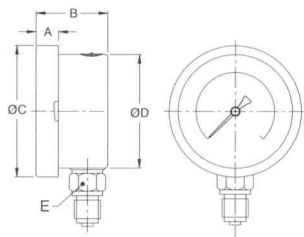
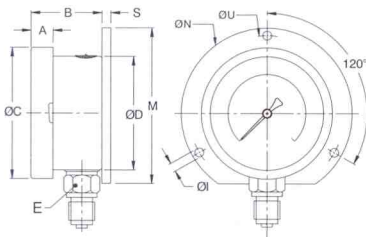
AD MODEL

TYPE 1

TYPE 2

TYPE 3

TYPE 4



NS	A	B	OC	OD	E	S	ON	OI	OU	M	WEIGHT(g)
63	9	31	69.5	62.5	A/F 14	5	88	5	76	80	222.0

NS	A	B	OC	OD	E	WEIGHT(g)
63	9	31	69.5	62.5	A/F 14	179.0

NS	A	B	OC	OD	E	WEIGHT(g)
63	9	31	69.5	62.5	A/F 14	187.0

NS	A	B	OC	OD	E	WEIGHT(g)
63	9	31	69.5	62.5	A/F 14	187.0

ALL SS PRESSURE GAUGE

NEss

CAPSULE TYPE



AF

SPECIAL FEATURES

- STAINLESS STEEL CASE & RING
- MOST SUITABLE FOR AIR & GASEOUS APPLICATION MEASUREMENT FROM 25 mbar TO 600 mbar
- BOTTOM & BACK MOUNTING
- VACUUM & COMPOUND RANGES
- STANDARD FOLLOWED IN GENERAL EN 837-3

APPLICATIONS

FOOD & BEVERAGES, PHARMACEUTICAL, CONVENTIONAL & NUCLEAR POWER PLANTS, DRAFT MEASUREMENT



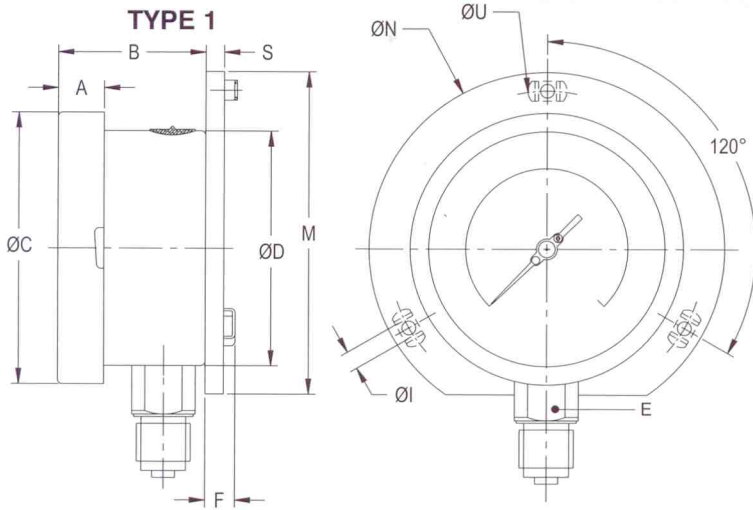
SPECIFICATIONS

STANDARD VERSION : 63mm, 100mm, 125mm, 150mm

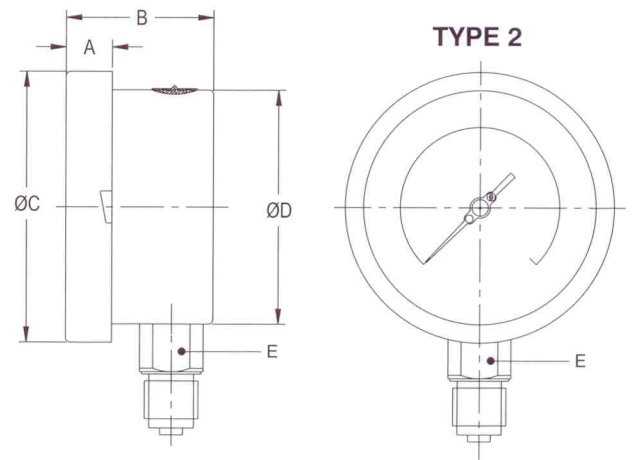
Accuracy	:	$\pm 2.0\%$ of F.S. ($\pm 1.6\%$ Available on Request)
Ambient temperature	:	-25 to 65°C
Process temperature	:	Max 150°C
Operating pressure	:	75% of the Scale Value

Case	:	AISI 304 SS
Ring	:	AISI 304 SS, Bayonet Type
Socket	:	AISI 316L SS
Movement	:	AISI 304 SS
Joints	:	Tig Argon Arc Welding
Capsule	:	AISI 316 SS (With Laser Welded)

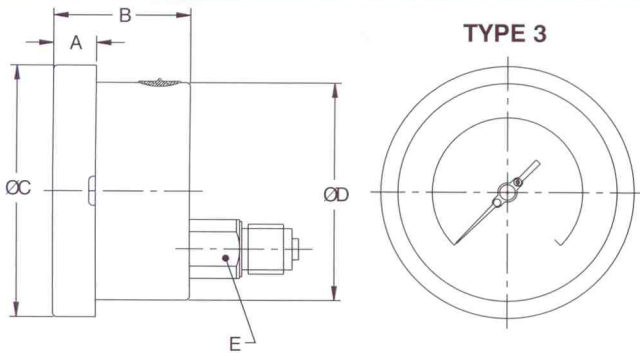
Over Pressure	:	110% F.S.D.
Protection	:	IP 55
Dial	:	Aluminium, black graduation on white background with zero adjustment provision
Pointer	:	Aluminium, black Coloured, Fixed
Window	:	Sheet Glass
Gasket	:	Neoprene



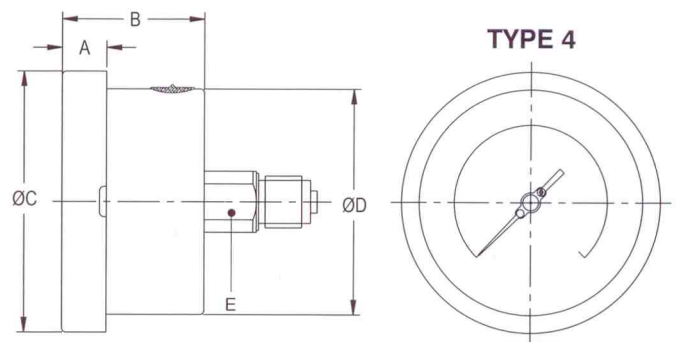
NS	A	B	ØC	ØD	E	M	S	F	ØI	ØN	ØU	WEIGHT(g)
63												
100	12.5	48	110	100	22	128	6	14.5	6	134	118	690
125	14.5	49	129	119	22	-	4	15	6	152	138	760
150	15	49	161	149	22	177	5.5	15	6	186	168	1110



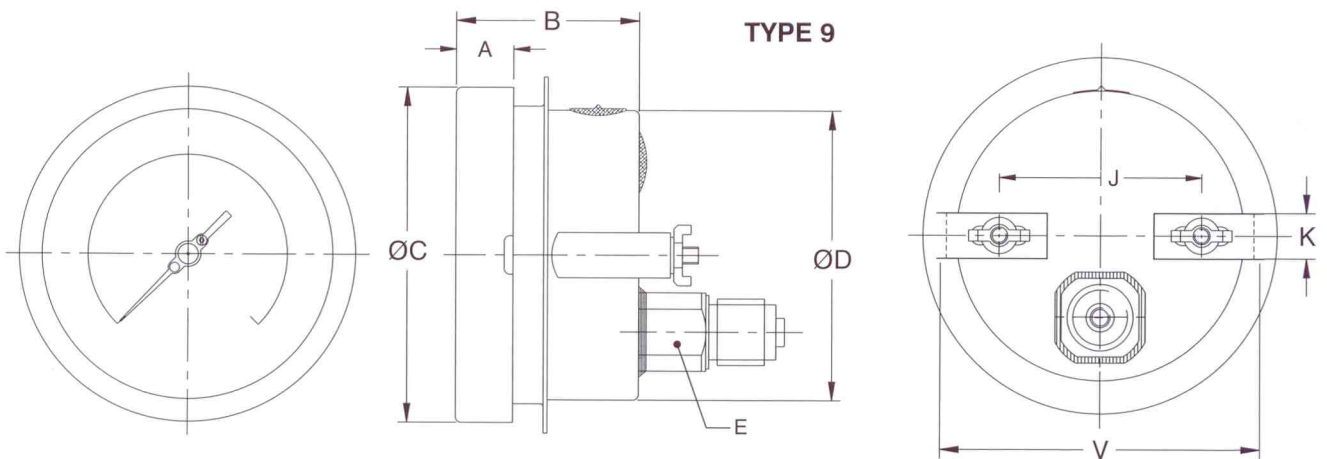
NS	A	B	ØC	ØD	E	WEIGHT(g)
63						
100	12.5	48	110	100	22	605
125	14.5	49	129	119	22	670
150	15	49	161	149	22	1030



NS	A	B	ØC	ØD	E	WEIGHT(g)
63						
100	12.5	48	110	100	22	605
125	14.5	49	129	119	22	665
150	15	49	161	149	22	1115



NS	A	B	ØC	ØD	E	WEIGHT(g)
63	12.5	46	77	66.5	A/F ₁₄	
100	12.5	48	110	100	22	605
125	14.5	49	129	119	22	665
150	15	49	161	149	22	1115



NS	A	B	ØC	ØD	E	J	K	V	WEIGHT(g)
63									
100	12.5	48	110	100	22	66.5	16	106	730
125	11	48	131	119	22	80	16	129.5	825.0
150	15	49	161	149	22	103.5	16	158	1200



SPECIAL FEATURES

- STAINLESS STEEL CASE & MEASURING SYSTEM
- SOLID FRONT DESIGN FEATURES BAFFLE WALL INTERPOSED BETWEEN THE SENSING SYSTEM & THE WINDOW, AND A PRESSURE RELIEVING BACK FOR INCREASED SAFETY.
- SOCKET & CASE WELDED
- DRY OR LIQUID FILLED.
- ACCURACY UPTO 0.5%
- STAINLESS STEEL BLOW OFF BACK
- STANDARD FOLLOWED IN GENERAL EN-837-1



APPLICATIONS

OIL & GAS CHEMICALS / REFINERY / FERTILIZER / PETROCHEMICALS / PHARMACEUTICAL / POWER / CEMENT / SUGAR / FOOD & BEVERAGES / PULP & PAPER & ALLIED PROCESS INDUSTRIES. FOR FLUID & GASEOUS MEDIA.

SPECIFICATIONS

STANDARD VERSION : 100mm, 150mm

Accuracy	: $\pm 1.0\%$ of F.S.
Ambient temperature	: -20 to 65°C
Process temperature	: Max 300°C
Operating pressure	: 75% of the Scale Value
Over pressure limit	: 30% for Pressure Ranges upto $600\text{kg} / \text{cm}^2$ 15% for Pressure Ranges above $600\text{kg} / \text{cm}^2$

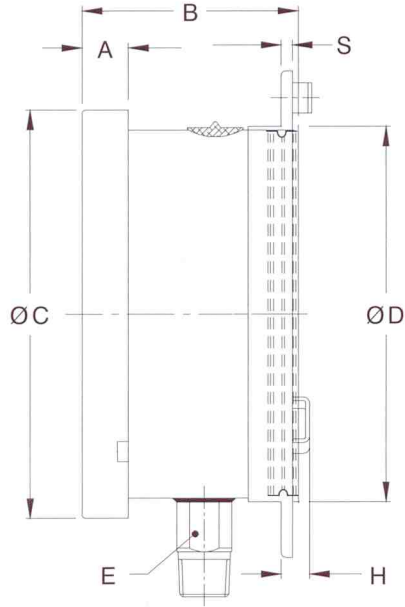
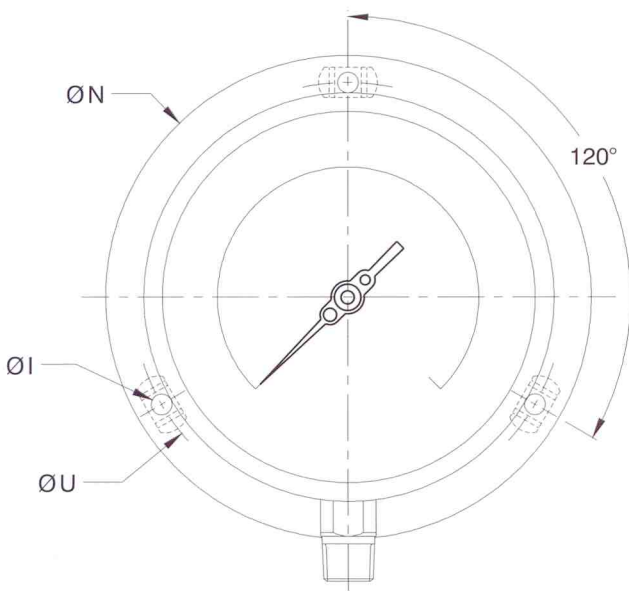
Case	: AISI 304 SS
Ring	: AISI 304 SS, Bayonet Lock
Bourdon	: AISI 316L SS
Socket	: AISI 316L SS
Movement	: AISI 304 SS
Joints	: Tig Argon Arc Welding

Protection	: IP 65
Dial	: Aluminium, black graduation on white background
Pointer	: Aluminium, black Coloured, Micrometer Zero Adjustable
Window	: Shatterproof / Safety Glass
Blow off Disc	: AISI 304 SS
Gasket	: Neoprene

GLYCERINE FILLED VERSION (OPTION PY)

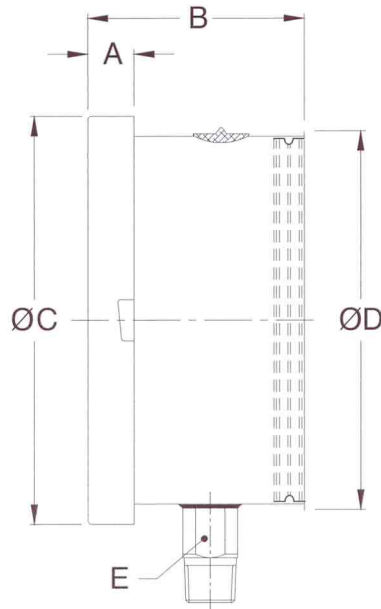
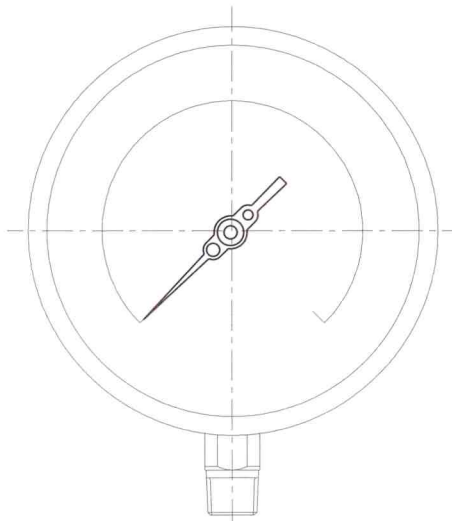
Accuracy	: $\pm 1.0\%$ of F.S.
Ambient Temperature	: Maximum 65°C
Protection	: IP 65
Window	: Shatterproof / Safety Glass
Dampening Liquids	: Glycerine 98% (Others available as Option)
Other Features	: Refer Specification of Standard Version

TYPE 1



NS	A	B	$\varnothing C$	$\varnothing D$	E	$\varnothing N$	$\varnothing U$	H	$\varnothing I$	S	WEIGHT(g)
100	12.5	64	110	100	22	134	118	15	6	1	812.5
150	15	66	161	149	22	196	178	15	6	5	1376.0

TYPE 2



NS	A	B	$\varnothing C$	$\varnothing D$	E	WEIGHT(g)
100	12.5	64	110	100	22	716.5
150	15	66	161	149	22	1220.0

DIFFERENTIAL PRESSURE GAUGE

NESS

DOUBLE DIAPHRAGM TYPE



AQ

SPECIAL FEATURES

- CASE & MEASURING SYSTEM IN SS
- STATIC PRESSURE UPTO 200 Kg/cm²
- 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 : 100mm, 150mm

Accuracy	: ±2.0% of F.S.
Ambient temperature	: -25 to 65°C
Process temperature	: Max 100°C
Static pressure	: 100 kg/cm ² Above ranges 6000 mmWC
	: 40 kg/cm ² upto ranges 6000 mmWC

Case	: AISI 304 SS
Ring	: AISI 304 SS Bayonet Type
Diaphragm	: AISI 316L SS (Double Diaphragm)
Nuts & Bolts	: AISI 304 SS
Purging Port Plug	: 2 x 1/4" NPT(F) AISI 304 SS
Chamber	: AISI 304 Stainless Steel
Movement	: AISI 304 Stainless Steel 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	: Shatter proof / Safety Glass
Case Gasket	: Neoprene
Element Chamber Filling	: Silicon Oil (Others as Optional)
Diaphragm Sealing Gasket	: Viton
Scale Amplitude	: 180° to 270° (Depends on Range)

Temperature Error : - When temperature of the pressure element deviates from +20°C,
Rising temperature: +0,6% / 10°C of true scale value
Falling temperature: -0,6% / 10°C of true scale value

BASIC MODEL FOR PRESSURE GAUGE

Example

TYPE OF GAUGE

AL: PRESSURE GAUGE AF: LOW DRAFT GAUGE AQ: DIFFERENTIAL PRESSURE GAUGE
 AL: PRESSURE GAUGE (63mm) AI: SOLID FRONT (FULL SAFETY PATTERN)

NORMAL SIZE

D: 63mm F: 100mm G: 125mm H: 150mm
 (AD Type only)

TYPE OF MOUNTING

1. WALL / SURFACE / PROJECTION MOUNTING WITH BOTTOM ENTRY
2. DIRECT BOTTOM ENTRY
3. DIRECT LOWER BACK ENTRY
4. DIRECT CENTER BACK ENTRY
5. FLUSH PANEL LOWER BACK ENTRY WITH FRONT FLANGE
9. LOWER BACK ENTRY WITH MOUNTING BRACKET
- 0: OTHER MOUNTING WITH REQUEST

GAUGE CONNECTION

2BM	1/4" BSP (M)	4BM	1/2" BSP (M) STANDARD	2TM	1/4" BSPT (M)
2PT	1/4" PT (M)	2NM	1/4" NPT (M)	3TM	3/8" BSPT (M)
2PF	1/4" PF (M)	3NM	3/8" NPT (M)	4TM	1/2" BSPT (M)
3BM	3/8" BSP (M)	4NM	1/2" NPT (M)	2MM	M12 X 1 (M)
3PT	3/8" PT (M)	4PT	1/2" PT (M)	3MM	M16 X 1.5 (M)
3PF	3/8" PF (M)	4PF	1/2" PF (M)	4MM	M20 X 1.5 (M)

ADAPTOR CAN BE PROVIDED FOR NON STANDARD FLANGED & FEMALE CONNECTIONS.

RANGE

REFER TO THE FOLLOWING TABLE

(OTHER UNIT & DUAL SCALE CAN BE ARRANGED ON REQUEST)

0-10Kg/cm²

UNIT	Kg/cm ² or BARG	MPA		mmH ₂ O	(Not for GL)
	-1-0 0-10	-0.1-0.3	0-4	0-250	
	-1-0.6 0-16	-0.1-0.6	0-6	0-600	
	-1-1.5 0-25	-0.1-0.2	0-10	0-1000	
	-1-4 0-40	-0.1-0	0-16	0-1600	
	-1-6 0-60	0-0.2	0-25	0-2500	
	-1-10 0-100	0-0.25	0-40	0-4000	
	-1-16 0-160	0-0.4	0-60	0-6000	
	0-0.6 0-250	0-0.6	0-100		
	0-1 0-400	0-1			
	0-1.6 0-600	0-1.6			
	0-2.5 0-1000	0-2			
	0-4 0-1600	0-2.5			
	0-6	0-3.5			

OPTION

OA	ACCURACY OF ±0.5%FS (ONLY AVAILABLE ON AL)	SX	SS TAG PLATE
		SW	DIAL TAG MARKING
TI	MONEL BOURDON & SOCKET (ONLY AVAILABLE ON AL)	RH	NESS STANDARD DIAL
		PY	GLYCERINE FILLED TYPE
PS	ANSI 316 SS CASE & RING	QA	SILICON FILLED TYPE
PW	5 POINT CALIBRATION	SB	INTERNAL VACUUM STOP
RQ	ENCLOSURE PROTECTION OF IP 65	ZB	RECEIVER RANGE
RR	ENCLOSURE PROTECTION OF IP 66	YR	STATIC PRESSURE UPTO 200 Kg/cm ²
RX	SHATTERPROOF GLASS	YS	STATIC PRESSURE UPTO 400 Kg/cm ²
SF	MOVEMENT WITH DAMPENING JELLY	SC	ANSI304SS MOVEMENT (APPLIED TO AF)
SG	OXYGEN SERVICE	XX	SPECIAL OPTION (Please specify)
SJ	MAXIMUM READING POINTER		
XZ	INTERNAL ZERO ADJUSTMENT POINTER		

SELECTION OF MODEL (EXAMPLE)

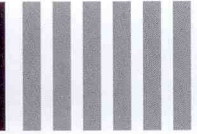
AL-F-2-4NM-0-10Kg/cm²-RH

DIAPHRAGM SEAL

NESS

FLANGE - "1" SECTION TYPE

DIRECT FLANGED INSERT TYPE



DI
DK

CHEMICAL SEAL TYPE PRESSURE GAUGE

(Bourdon Type, Various Wetted Parts are available on request.)

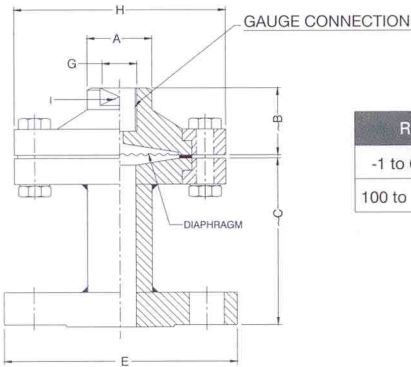
SPECIAL FEATURE

(Please refer to AL and AI model for the general specification.)

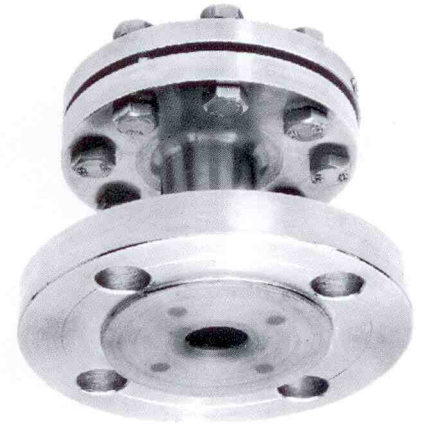
DIAPHRAGM SEALS ARE PROVIDED IN THE VARIOUS KINDS OF PRESSURE GAUGES IN ORDER TO ISOLATE THE SENSING ELEMENT FROM THE MAIN SERVICE DUE TO ITS CORROSIVE, VISCOUS AND SEDIMENTED NATURE AND TO AVOID CLOGGING AND SOLIDIFICATION. THIS CAN BE WIDELY USED WITH ANTI CORROSIVE TREATMENT/ PROTECTION & VARIOUS FLANGED SIZES.

DI MODEL (1 1/2" or Smaller size)

- Range: -1 to 150 Kg/cm²
- Process Temperature: -20 to 200°C (with PTFE Lining)
-40 to 345°C (without PTFE Lining)
- Flange Connection: ANSI (ASME) / DIN / BS / JIS / JPI Standard

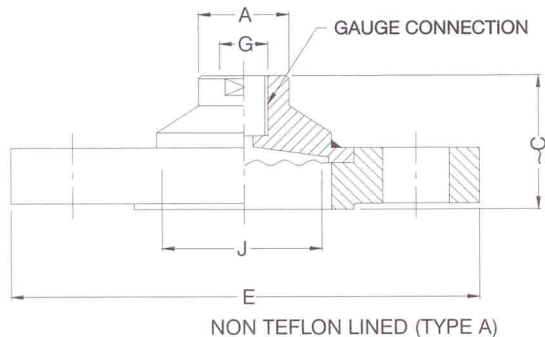


Ranges	A	~ B	~ C	E	H	G	I
-1 to 60 kg/cm ²	30	31	75	*	98	3/8" BSP(F)	A/F 25
100 to 400 kg/cm ²	30	31	75	*	78	3/8" BSP(F)	A/F 25



DK MODEL (2" and Bigger size)

- Range: -1 to 150 Kg/cm²
- Process Temperature: -40 to 345°C (by Filling Liquid)
- Flange Connection: ANSI (ASME) / DIN / BS / JIS / JPI Standard



A	~ C	E	G	J
30	44.5	**	3/8" BSP(M)	***



BASIC MODEL FOR CHEMICAL SEAL PRESSURE GAUGE

Example

HOW TO ORDER	
BASIC MODEL	DI
OPTIONS	
FOR NON STANDARD PRODUCTS/OPTIONAL ITEMS, PLEASE CONTACT FACTORY FOR DELIVERY AND MINIMUM QUANTITY OF ORDER.	
TOP CHAMBER	XX
YA: AISI 316L SS XV: AISI 316 SS XW: AISI 304 SS YC: CARBON STEEL	
DIAPHRAGM	UJ
KE: PTFE UN: NICKEL UR: TITANIUM UL: HASTELLOY'C' UP: SILVER UJ: AISI 316L SS UM: MONEL UQ: TANTALUM	
GASKET	VI
VR: METAL VI: PTFE	
TENSION FLANGE & NUT - BOLTS	XS
XQ: AISI 304 SS XS: NICKEL PLATED MILD STEEL XR: AISI 316 SS	
FLUSHING RING	VF
VG: FLUSHING RING WITH 1/2"NPT PLUG (AISI 304 SS) VE: FLUSHING RING WITH 1/4"NPT PLUG (AISI 304 SS) VD: FLUSHING RING WITH 1/2"NPT PLUG (AISI 316 SS) VF: FLUSHING RING WITH 1/4"NPT PLUG (AISI 316 SS) Std.	
BOTTOM CHAMBER (I SECTION)	TM
TK: AISI 304 SS TN: CARBON STEEL TZ: PVC TM: AISI 316 SS TL: AISI 316L SS TV: POLYPROPELENE UA: PVDF	
INSTRUMENT CONNECTION	VP
VL: 1/2"BSP(F) VQ: 3/8"NPT(F) VN: 1/4"BSP(F) VM: 1/2"NPT(F) VO: 1/4"NPT(F) VP: 3/8"BSP(F)	
PROCESS CONNECTION	B11
AS PER DIN/BS/ANSI/JIS(SELECT CODE FROM TABLE)	
FILLING FLUIDS	UX
US: FLUROLUBE 4.2 [-45 TO 175°C / -49 TO 374°F] UY: SILICON DC 704 [0 TO 315°C / 32 TO 599°F] UT: FLUROLUBE 6.3 [-40 TO 235°C / -40 TO 455°F] UZ: SILICON DC 710 [5 TO 345°C / 41 TO 653°F] UU: FLUROLUBE FS5 [-40 TO 150°C / -40 TO 302°F] VA: SYLTHERM 800 [45 TO 205°C / -49 TO 401°F] UV: FOOD GRADE OIL [-20 TO 140°C / -4 TO 284°F] VB: SYLTHERM XLT [-75 TO 150°C / -102 TO 302°F] UX: SILICON DC 200-1 OCS [-40 TO 205°C / -40 TO 401°F] VC: HALOCARBON OIL	
PROTECTION ON WETTED PARTS	VV
VS: PTFE LINING ON BOTFOM CHAMBER(I SECTION)- 2mm THICK VV: PTFE PROTECTION FOR DIAPHRAGM VZ: PTFE COATING ON DIAPHRAGM	
TYPE	A1
AO: WITHOUT CAPILLARY AI: WITH CAPILLARY	
CAPILLARY	PE
PE: AISI 304 SS PG: AISI 316 SS	
CAPILLARY COVERED WITH ARMOUR	PF
PF: AISI 304 SS PH: AISI 316 SS PI: PVC	
CAPILLARY LENGTH(Max up to 6Mtrs.)	3Mtr.
IN METERS (e.g. 1.5 = 1.5 METERS 2.0 = 2 METERS)	
OTHER OPTIONS	TB
TB: HELIUM LEAK TEST TC: DRY SEAL ONLY WITHOUT INSTRUMENT	

SELECTION OF MODEL (EXAMPLE)

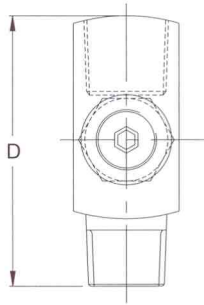
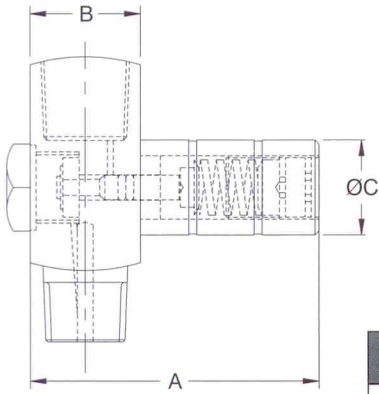
DI-XW-UJ-VI-XS-VF-TM-VP-B11 -IJX-W-A1 -PE-PF-3Mtr-TB

GAUGE ACCESSORIES

OVERRANGE PROTECTOR

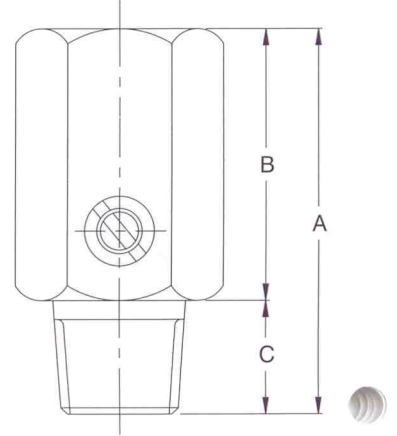


SET PRESSURE : 0.1 to 40MPa
 PROOF PRESSURE : 50MPa
 MAX. PROCESS TEMPERATURE : -20 to 200°C
 MATERIAL : SUS316(Standard)



A	B	ØC	D	WEIGHT
73	28 SQ.	24	74	470.0

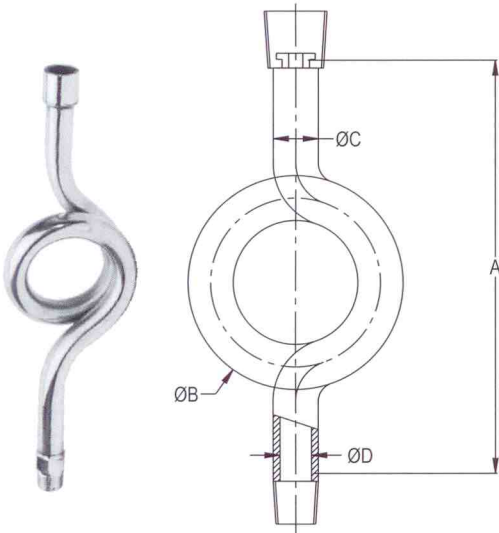
GAUGE SNUBBER



PROOF PRESSURE : 40MPa
 MAX. PROCESS TEMPERATURE : -20 to 200°C
 MATERIAL : SUS316(Standard)

CONNECTION	A	B	ØC	Hex. "H" A/F
1/4" (MxF)	63	50	13	17.0
3/8" (MxF)	63	47	16	28.0
1/2" (MxF)	63	43	20	28.0

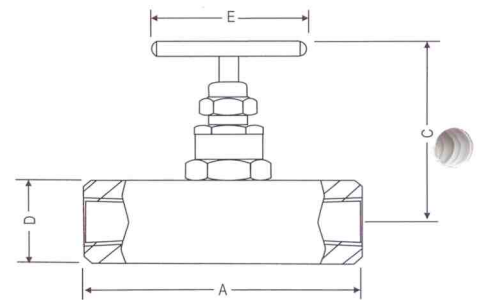
SYPHON TUBE



Pipe Size	A	ØB	ØC	ØD	E
1/2" Sch. 40	240	110	21.3	15.7	25
1/2" Sch. 80	240	110	21.3	13.9	25
1/2" Sch. 160	240	110	21.3	11.7	25

MAX. TEMPERATURE : 450°C
 MAX. PRESSURE : 13.5MPa
 MATERIAL : SUS316(Standard)

NEEDLE VALVE

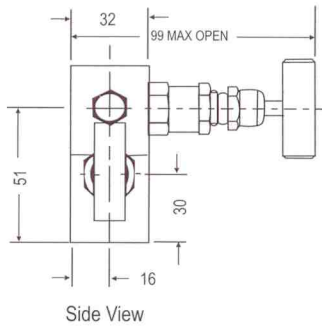
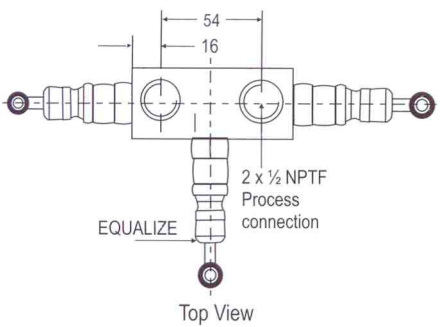
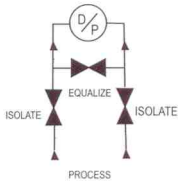
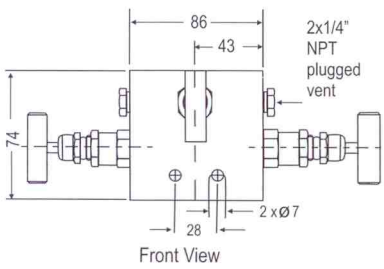
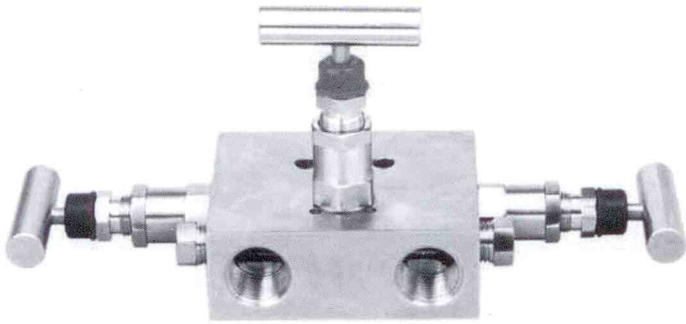


Type FF

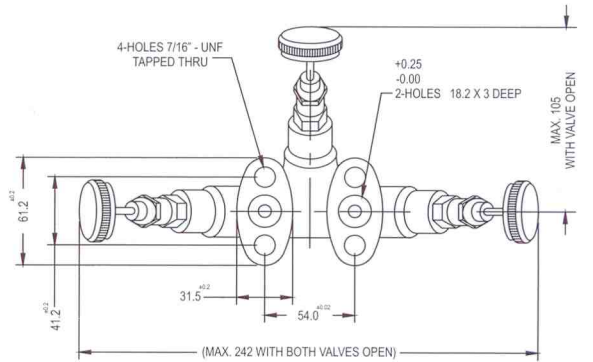
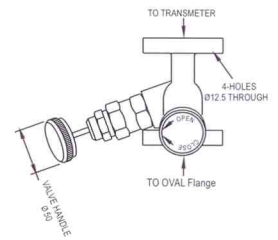
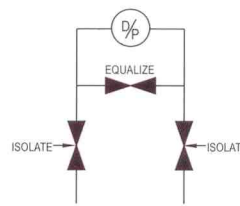
Size	Type	Length A	Width D	Ht open C	Ht closed C	Handle E
1/8"	FxF	50	22	55	52	40
	MxF	55	22	55	52	40
	MxM	60	22	55	52	40
1/4"	FxF	55	25	63	60.5	40
	MxF	65	25	63	60.5	40
	MxM	60	25	63	60.5	40
3/8"	FxF	55	25	63	60.5	40
	MxF	65	25	63	60.5	40
	MxM	65	25	63	60.5	40
1/2"	FxF	65	32	83.6	79.6	50
	MxF	75	32	83.6	79.6	50
	MxM	70	32	83.6	79.6	50
3/4"	FxF	70	38	88.6	82.6	50
	MxF	75	38	88.6	82.6	50
	MxM	80	38	83.6	79.6	50
1"	FxF	90	45	101	96	50
	MxF	105	45	101	96	50
	MxM	105	45	101	96	50

3 WAY VALVE MANIFOLD

3VS

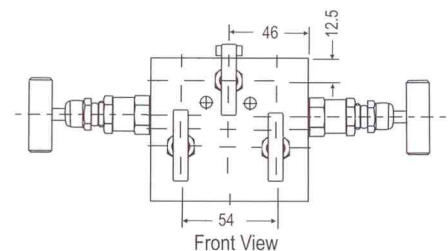
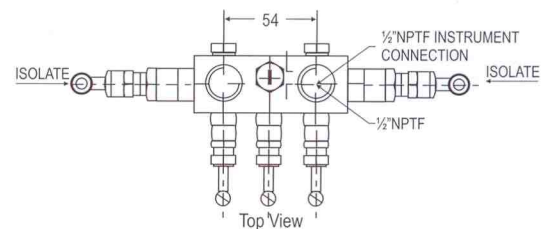
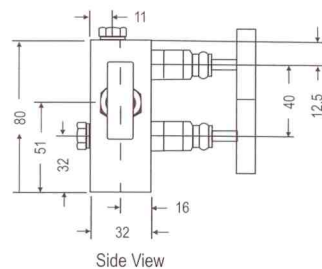
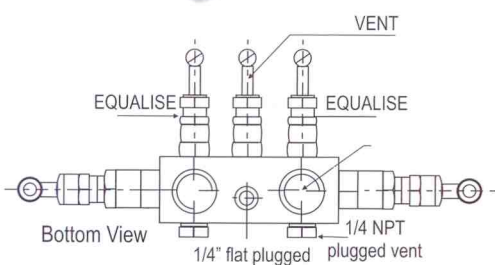
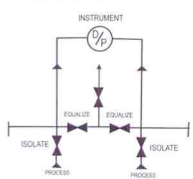
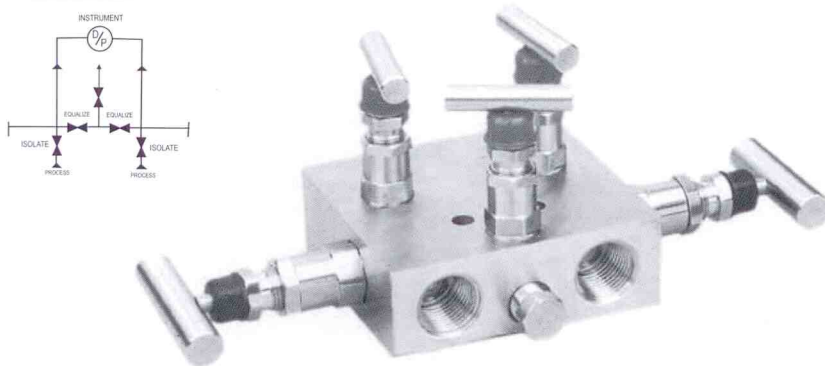


3VCN

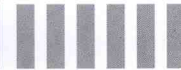


5 WAY VALVE MANIFOLD

5VG



(Specification)	
MATERIAL	: SUS316 (Standard)
PROOF PRESSURE	: 40MPa
MAX. TEMPERATURE	: 240°C
GASKET	: PTFE (Standard)
W/DRAIN PLUG	: 1/4" NPT (SUS316)



SPECIAL FEATURES

- STAINLESS STEEL CASE & STEM
- BOTTOM / BACK / EVERY ANGLE ENTRY
- OPTIONAL : SILICON FILLED UP TO 200°C
- STANDARD FOLLOWED EN 13190.

APPLICATIONS

CHEMICALS / REFINERY / FERTILIZER / PETROCHEMICALS /
 PHARMACEUTICAL / POWER / CEMENT / SUGAR /
 FOOD & BEVERAGES / PULP & PAPER & ALLIED
 PROCESS INDUSTRIES.



SPECIFICATIONS

STANDARD VERSION : 63mm, 100mm, 125mm, 150mm

Accuracy	: Class 1 as per EN 13190
Operating Pressure	: 15 kg/cm ² / (without thermowell) maximum
Over Range Limit	: 15% of full scale range or 600°C whichever is min.
Stem Diameter	: 6mm / 8mm / 9.5mm / 10mm / 12mm
Stem Length	: Refer scale table

Case	: AISI 304 SS
Ring	: AISI 304 SS, Bayonet Lock
Stem	: AISI 316 SS
Connection	: AISI 316 SS
Joints	: Tig argon arc welding
Sensing Element	: Bi - metal strip coiled

Protection	: IP 65
Dial	: Aluminium, black graduation on white background
Pointer	: Aluminium, black Coloured Slotted zero adjustable (STD) Externally Zero adjustable pointer with Mounting - 8 (Except nominal size 63mm) Aluminium, black Coloured Fixed Pointer for NS - 63mm
Window	: Sheet Glass
Gasket	: Neoprene

BASIC MODEL FOR TEMPERATURE GAUGE

Example

TYPE OF GAUGE

CB: Bimetallic Temperature Gauge

CB

NORMINAL SIZE

D: 63mm F: 100mm G: 125mm H: 150mm

F

TYPE OF MOUNTING

- 2. DIRECT BOTTOM ENTRY
- 4. DIRECT CENTER BACK ENTRY
- 7. 45 Degree Angle TYPE
- 8. EVERY ANGLE TYPE

2

GAUGE CONNECTION

3TM	3/8"BSPT (M)	3NM	3/8"NPT (M)	3BM	3/8" BSP (M)
3PT	3/8"PT (M)	3PF	3/8" PF (M)	4BM	1/2" BSP (M)
4TM	1/2"BSPT (M)	4NM	1/2"NPT (M)	4PT	1/2"PT (M)
4PF	1/2"PF (M)	4MM	M20 X 1.5 (M)		

4NM

CONNECTION TYPE

ZI SLIDING UNION ZJ FIXED

ZI

DIAMETER OF THERMOBULB

1U 6mm 2C 8mm 2I 9.5mm 2J 10mm 2K 12mm

2C

LENGTH OF THERMOBULB

Please specify in mm (Including Immersion & Extension Length)

RANGE

REFER TO THE FOLLOWING TABLE (OTHER UNIT & DUAL SCALE CAN BE ARRANGED ON REQUEST.)

0-100C

Range	Minimum Insertion Length (mm)		Range	Minimum Insertion Length (mm)		Range	Minimum Insertion Length (mm)	
	6mm	8·9.5mm		6mm	8·9.5mm		6mm	8·9.5mm
-50 - 50	100	82	-20 - 80	100	82	0 - 300	100	88
-50 - 100	116	91	-20 - 60	114	88	0 - 400	150	100
-50 - 150	98	79	0 - 50	100	107	0 - 500	150	100
-30 - 220	84	70	0 - 60	137	107			
-30 - 170	98	79	0 - 80	114	88			
-30 - 120	116	91	0 - 100	100	82			
-30 - 70	100	82	0 - 120	88	72			
-30 - 50	114	88	0 - 150	116	91			
-20 - 180	98	79	0 - 200	98	79			
-20 - 100	88	72	0 - 250	84	91			

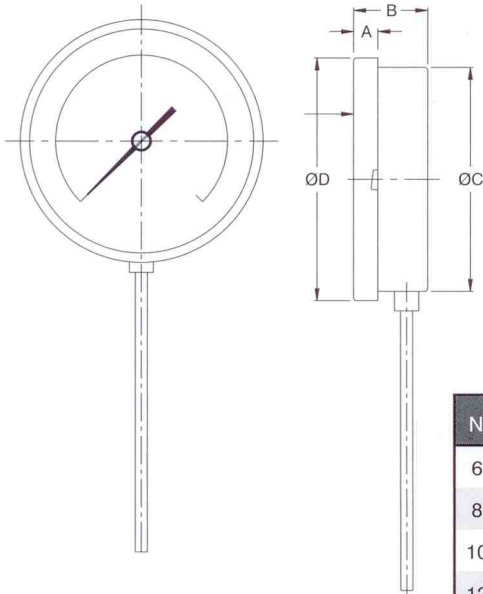
OPTION

QA	SILICON FILLED TYPE	SX	SS TAG PLATE
PY	GLYCERINE FILLED TYPE	SW	DIAL TAG MARKING
PS	ANSI 316 SS CASE & RING	RH	NESS STANDARD DIAL
PW	5 POINT CALIBRATION	SJ	MAXIMUM READING POINTER
RS	External Zero Adjustment (Type 8 only)	XX	SPECIAL OPTION (Please specify)
RX	SHATTERPROOF GLASS		
RQ	ENCLOSURE PROTECTION OF IP 65		
RR	ENCLOSURE PROTECTION OF IP 66		

RH

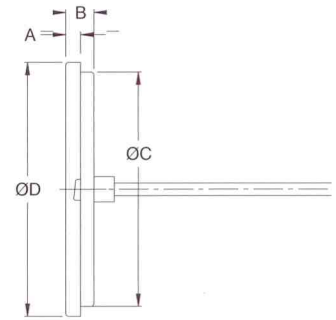
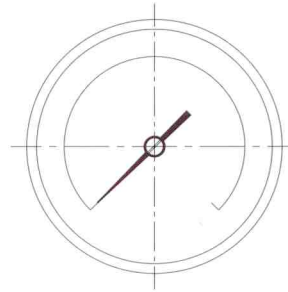
SELECTION OF MODEL (EXAMPLE)

CB-F-8-4NM-ZI-2C-0-100C-RH



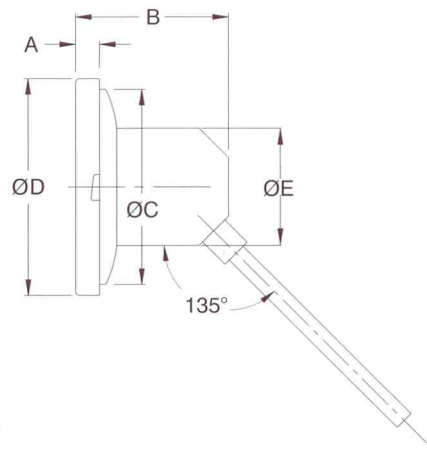
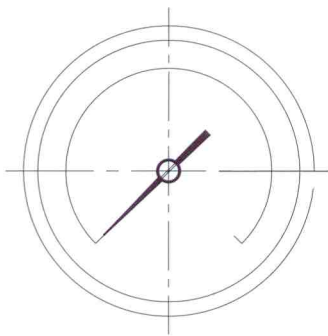
Type 2
(BOTTOM)

NS	A	B	OC	OD
63	12.5	46	66	77.5
80	11	36	80	89.5
100	9.5	46	100	110
125	11	48	119	131
150	15	49	149	161



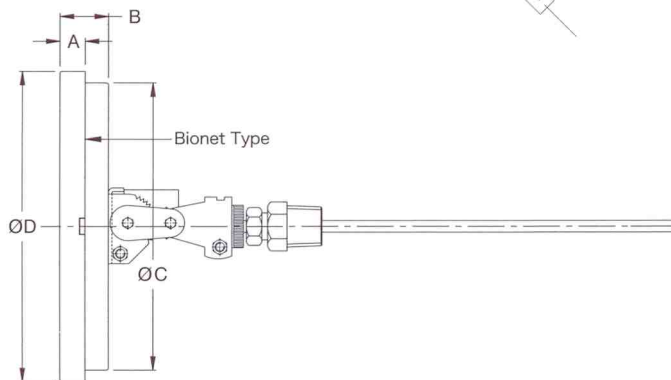
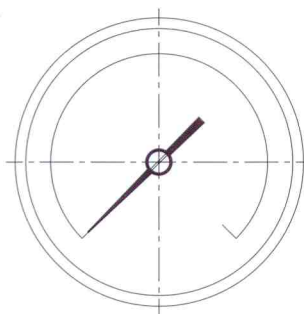
Type 4
(BACK)

NS	A	B	OC	OD
63	9.5	16	60	69.5
80	11	16	80	89.5
100	9.5	18	100	110
125	10	20	119	131.5
150	15	25.5	149	161



Type 7
(45 Degree Angle)

NS	A	B	OC	OD	OE
100	12	78	100	111	60



Type 8
(Every Angle Type)

NS	A	B	OC	OD
80	11	16	80	89.5
100	9.5	18	100	110
125	11	48	119	131
150	15	25.5	149	161

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E-Mail: e.sales@nesstech.co.jp

※This specification is to improve performance without changing it may otherwise