

BOURDON TYPE (DIN CASE)

BE

SPECIAL FEATURES

- STAINLESS STEEL CASE & MEASURING SYSTEM
- SOCKET & CASE WELDED
- PROTECTION IP 65 / IP 66
- DRY OR LIQUID FILLED
- ACCURACY UPTO 0.5%
- STANDARD FOLLOWED IN GENERAL EN 837-1



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 : 100mm, 150mm

Accuracy	: ±1.0% of F.S.
Ambient temperature	: - 25°C to + 65°C
Process temperature	: Max. 300°C
Operating pressure	: 75% of the Scale Value
Over pressure limit	: 30% for Pressure Ranges upto 600kg / cm ² 15% for Pressure Ranges above 600kg / cm ²
Case	: AISI 304 SS
Ring	: AISI 304 SS, Snap Action 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, fixed
Window	: Sheet Glass
Blow off Disc	: Neoprene
Gasket	: Neoprene
Filling Plug	: Neoprene

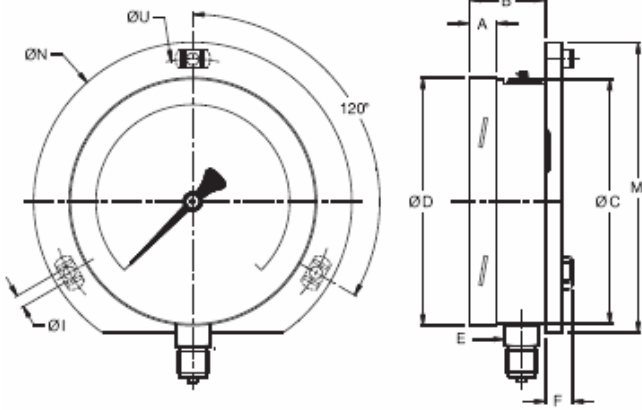
GLYCERINE FILLED VERSION (OPTION PY)

Accuracy	: ±1.0% of F.S.
Ambient Temperature	: Maximum 65°C
Process Temperature	: Maximum 65°C
Dampening Liquids	: Glycerine 98% (others available as option)
Other Features	: Refer Specification of Standard Version

DRY BUT FILLABLE VERSION

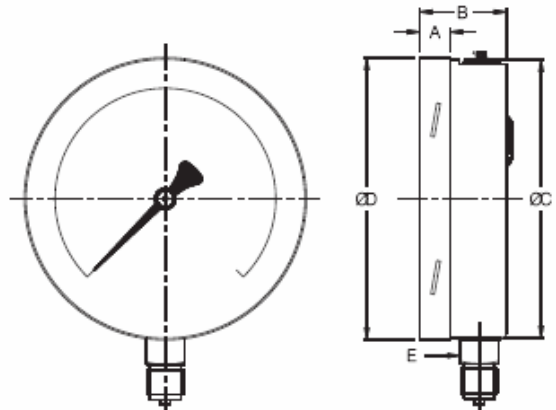
Option Code	Fillable Dampening Liquid
FG	: Fillable Glycerine 98%
FS	: For Silicon Oil

TYPE 1



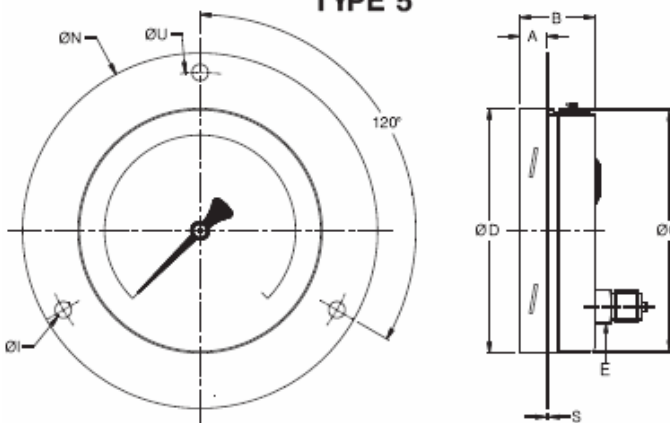
NS	A	B	ØC	ØD	E	F	Ø	ØN	ØU	M	Weight in gram (With Box)
100	17.5	49	99	101	22	15	4.8	132	116	128	645.0
150	17.5	51.5	159	162	22	15	5.8	196	178	188	1280.0

TYPE 2



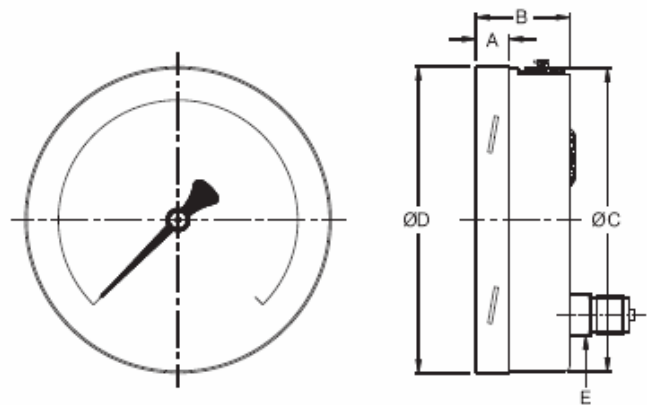
NS	A	B	ØC	ØD	E	Weight in gram (With Box)
100	17.5	49	99	101	22	560.0
150	17.5	51.5	159	162	22	1100.0

TYPE 5



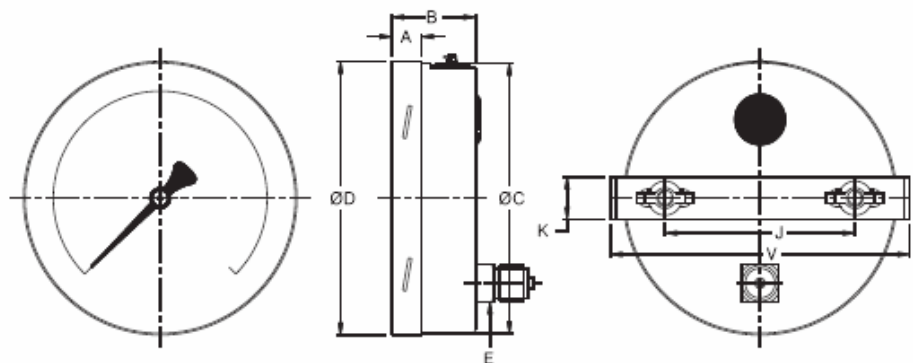
NS	A	B	ØC	ØD	E	Ø	ØN	ØU	S	Weight in gram (With Box)
100	17.5	49	99	101	22	4.8	132	116	1	630.0
150	17.5	51.5	159	162	22	5.8	196	178	1	1180.0

TYPE 3



NS	A	B	ØC	ØD	E	Weight in gram (With Box)
100	12.5	49	99	101	22	550.0
150	17.5	51.5	159	162	22	1060.0

TYPE 9



NS	A	B	ØC	ØD	E	J	K	V	Weight in gram (With Box)
100	2.5	49	99	101	22	66.5	16	106	760.0
150	7.5	51.5	159	162	22	103.5	16	158	1400.0

RANGE TABLE

Note : Manufacturer offers National / International Scales like kPa, MPa, bar, psi, kg/cm² & Dual Scale like kPa with psi, kPa with bar, bar with psi or Equivalent scales as per the requirement can be provided on request.

Following are the example tables for kg/cm² & psi scales

PRESSURE

SINGLE SCALE (kg/cm ² or bar)				
RANGE	RANGE	RANGE	RANGE	RANGE
0/0.6	0/4	0/25	0/160	0/1000
0/1	0/6	0/40	0/250	0/1400
0/1.6	0/10	0/60	0/400	0/1600
0/2.5	0/16	0/100	0/600	

DUAL SCALE (PSI with kg/cm ²) or PSI with bar					
RANGE (PSI)	RANGE (kg/cm ²)	RANGE (PSI)	RANGE (kg/cm ²)	RANGE (PSI)	RANGE (kg/cm ²)
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	0/10	0/1500	0/100	0/15000	0/1000
0/200	0/14	0/2000	0/140	0/20000	0/1400
0/300	0/20	0/3000	0/200	0/23000	0/1600

* Note: For ranges above 1600kg/cm², please consult factory.

VACUUM & COMPOUND

DUAL SCALE (inHg with PSI & mmHg with kg/cm ²)					
RANGE	RANGE	RANGE	RANGE	RANGE	RANGE
inHg with PSI	mmHg with kg/cm ²	inHg with PSI	mmHg with kg/cm ²	inHg with PSI	mmHg with kg/cm ²
- 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

SINGLE SCALE (kg/cm ²)			
RANGE	RANGE	RANGE	RANGE
- 1/0	- 1/1.5	- 1/5	- 1/15
- 1/0.6	- 1/3	- 1/9	- 1/24

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 ² or 3 - 15 psi	0.2 - 1 kg/cm ² or 3 - 15 psi
(0-100% linear scale)	(0.2 - 1 kg/cm ²)

FREON (WITH TEMPERATURE SCALE)

AMMONIA (WITH TEMPERATURE SCALE)

DUAL SCALE (Inch Hg to PSI)		RANGE (kg/cm ²)	RANGE (psi)
RANGE	RANGE		
-30/150	0-300	-1 to 12.5	-30 - 150
-30/300	0-500	-1 to 16	-30 - 300
		-1 to 25	0 - 300

ACCESSORIES †

EB COOLING TOWER	ED GAUGE SAVER	EG SNUBBER
EC GAUGE COCK	* NEEDLE VALVE	EH SIPHON
		DX DIAPHRAGM SEAL

† Refer Datasheet for complete specifications * Refer catalogue for Valves & Manifolds

HOW TO ORDER

BASIC MODEL

CODE	F	H
NOMINAL SIZE	100 mm	150 mm

TYPE OF MOUNTING

- 1 WALL / SURFACE / PROJECTION MOUNTING WITH BOTTOM ENTRY
- 2 DIRECT BOTTOM ENTRY
- 3 DIRECT LOWER BACK ENTRY
- 5 FLUSH PANEL BACK ENTRY WITH FRONT FLANGE
- 9 BACK ENTRY WITH MOUNTING BRACKET

GAUGE CONNECTION

2BM 1/4" BSP (M)	3NM 3/8" NPT (M)	4TM 1/2" BSPT (M)
3BM 3/8" BSP (M) STANDARD	4NM 1/2" NPT (M) STANDARD	2MM M 12 X 1 (M)
4BM 1/2" BSP (M) STANDARD	2TM 1/4" BSPT (M)	3MM M 16 X 1.5 (M)
2NM 1/4" NPT (M)	3TM 3/8" BSPT (M)	4MM M 20 X 1.5 (M)

Note : Connections like PT/PF/Flaired /UNF/G/R etc.can be provided on request.
Non standard connections can be provided through adaptors.

RANGE

REFER TABLES

OPTIONS

FOR NON STANDARD PRODUCTS/OPTIONAL ITEMS, PLEASE CONTACT FACTORY FOR DELIVERY AND MINIMUM QUANTITY OF ORDER.

OA ACCURACY ± 0.5% OF F.S. (EXCEPT WITH OPTION DAMPENING LIQUID, MAXIMUM READING POINTER)	SX SS TAG PLATE
TI MONEL BOURDON & SOCKET (MONEL VERSION)	SW DIAL TAG MARKING
PS AISI 316 SS CASE & BEZEL	TB HELIUM LEAK TEST
PW FIVE POINT CALIBRATION CERTIFICATE	TF TESTED TO NACE STANDARDS
FS FILLABLE LIQUID SILICON OIL*	RH CUSTOM DESIGNED DIAL
FG FILLABLE LIQUID GLYCERINE	PZ DAMPENING LIQUID MINERAL LIQUID FILLED
RR ENCLOSURE PROTECTION IP 66	PX DAMPENING LIQUID FLOUROLUBE FILLED
RW PLEXI GLASS	PY DAMPENING LIQUID GLYCERINE FILLED
RX SHATTERPROOF / SAFETY GLASS	QA DAMPENING LIQUID SILICON OIL FILLED*
RZ TOUGHENED GLASS	QB DAMPENING SCREW IN AISI 316 SS
SG OXYGEN SERVICE (WITHOUT OPTION DAMPENING LIQUID)	SA INTERNAL OVERPRESSURE STOP
SI KNIFE EDGE POINTER	SB INTERNAL VACUUM STOP
SJ MAXIMUM READING POINTER (WITHOUT OPTIONS : FILLED VERSION GAUGES)	ZB RECEIVER RANGE
SQ CASE WITH ROLLING TYPE BEZEL	ZC FREON RANGE (WITH TEMPERATURE SCALE)
SL ZERO ADJUSTABLE POINTER	ZD AMMONIA RANGE (WITH TEMPERATURE SCALE)
	ZZ EPOXY PAINTED CASE & BEZEL
	KA ON - OFF TYPE VENT PLUG
	SH FIXED POINTER
	ZL OVER RANGE PROTECTION 150% OF F. S.
	RE ENCLOSURE PROTECTION IP 67

* GASKET, BOD & PLUG OF VITON / NBR

Ordering Example:

BE - F - 2 - 4NM - 0/10kg/cm² - QA

Note : ● Due to continuous improvement, the specification may vary from time to time.

BE

F

2

4NM

0-10

kg/cm²

QA