

ALL SS PRESSURE GAUGE

BOURDON TYPE



SPECIAL FEATURES

- STAINLESS STEEL CASE & MEASURING SYSTEM
- RUGGED CONSTRUCTION
- DRY OR LIQUID FILLED
- STANDARD FOLLOWED IN GENERAL EN 837-1

APPLICATIONS

FOOD & BEVERAGE, PHARMACEUTICAL, CHEMICAL & PETROCHEMICAL INDUSTRIES, CONVENTIONAL & NUCLEAR POWER PLANTS, PUMPS, HYDRO-CLEANING MACHINES, PRESSES, ENGINE COMPRESSORS, TURBINES DIESEL ENGINES, HYDRAULIC EQUIPMENTS, REFRIGERATING PLANTS AND GASEOUS / LIQUID MEDIA THAT WILL NOT OBSTRUCT THE PRESSURE SYSTEM.

SPECIFICATIONS

STANDARD VERSION : 1.5", 2", 2.5" & 3"

Accuracy	:	±1.6% of F.S. (For NS 2.5" & NS 3") & ±2.5% of F.S. (For NS 1.5" & 2")
Ambient temperature	:	- 25° C to + 65° C
Process temperature	:	Max 180° 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 (Bayonet type) & Rolling type for NS 1.5"
Socket	:	AISI 316 SS
Bourdon	:	AISI 316L SS
Movement	:	AISI 304 SS
Joints	:	Tig Argon Arc Welding
Protection	:	IP 65
Dial	:	Aluminium, black graduation on white background
Pointer	:	Black coloured, Fixed
Window	:	Plexi Glass
Filling Plug	:	Neoprene
Gasket	:	Neoprene / Silicon rubber

DRY BUT FILLABLE VERSION (OPTION FG)

Fillable Dampening Liquid	:	Glycerine 99.7%
Ambient Temperature	:	Maximum 65° C
Process Temperature	:	Maximum 65° C
Other Features	:	Refer Specification of Standard Version

GLYCERINE FILLED VERSION (OPTION PY)

Accuracy	:	±1.6% of F.S. (For NS 2.5" & NS 3") & ±2.5% of F.S. (For NS 1.5" & 2")
Ambient Temperature	:	Maximum 65° C
Process Temperature	:	Maximum 65° C
Window	:	Plexi Glass
Dampening Liquids	:	Glycerine 99.7%
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

ALL SS PRESSURE GAUGE

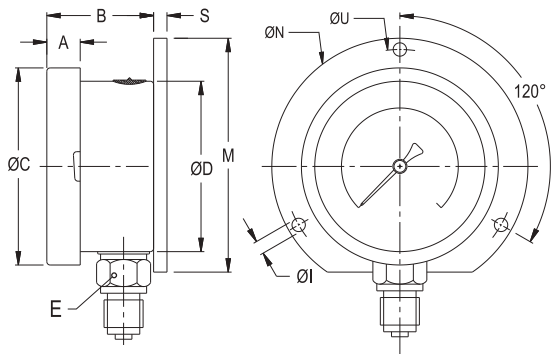
BOURDON TYPE



KAD

DIMENSIONS - STANDARD VERSION

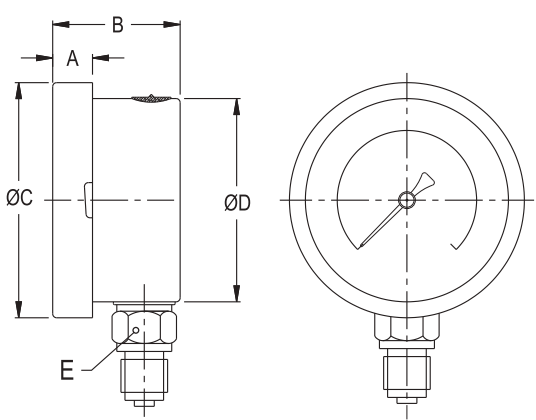
TYPE 1



BAYONET TYPE (STANDARD)

NS	A	B	ØC	ØD	E	S	ØN	ØI	ØU	M	Weight in gram (With Box)	Weight in gram (With Glycerin & Box)
2.5"	10	32	69.5	62.5	A/F 14	7	86	3.6	75	80	215.0	265.0
3"	11	35	89.5	80	A/F 14	4	110	5	94	95	300.0	380.0

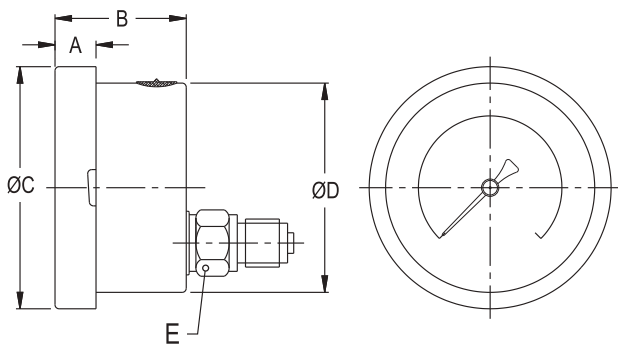
TYPE 2



BAYONET TYPE (STANDARD)

NS	A	B	ØC	ØD	E	Weight in gram (With Box)	Weight in gram (With Glycerin & Box)
2"	10	32.5	58.5	51	A/F 14	153.0	210.0
2.5"	10	31	69.5	62.5	A/F 14	180.0	240.0
3"	11	35	89.5	80	A/F 14	250.0	330.0

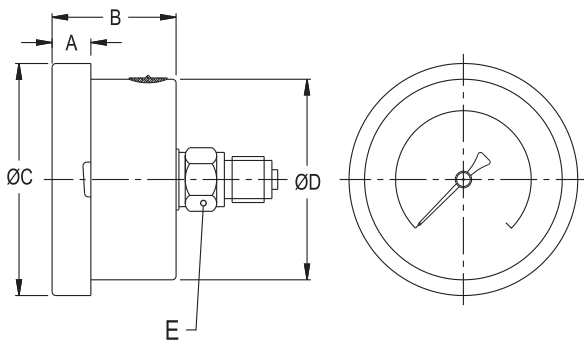
TYPE 3



BAYONET TYPE (STANDARD)

NS	A	B	ØC	ØD	E	Weight in gram (With Box)	Weight in gram (With Glycerin & Box)
2.5"	10	32	69.5	62.5	A/F 14	190.0	250.0

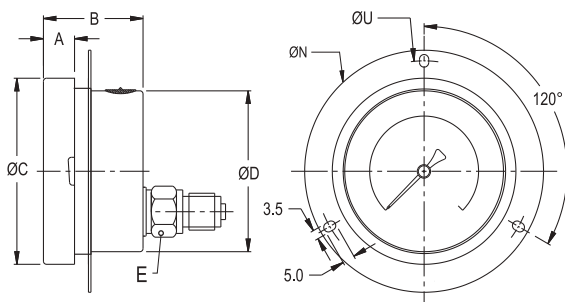
TYPE 4



BAYONET TYPE (STANDARD)

NS	A	B	ØC	ØD	E	Weight in gram (With Box)	Weight in gram (With Glycerin & Box)
2"	10	32.5	58.5	51	A/F 14	170.0	230.0
2.5"	10	32	69.5	62.5	A/F 14	188.0	250.0
3"	11	35	89.5	80	A/F 14	240.0	320.0

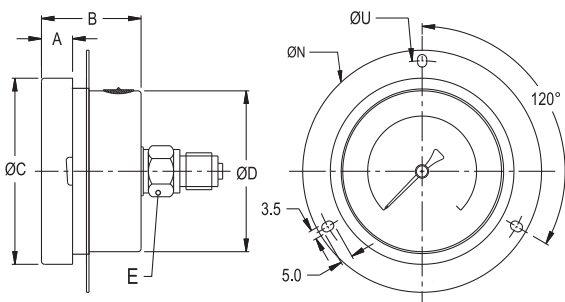
TYPE 5



BAYONET TYPE (STANDARD)

NS	A	B	ØC	ØD	E	ØN	ØU	Weight in gram (With Box)	Weight in gram (With Glycerin & Box)
2.5"	10	32	69.5	62.5	A/F 14	86	75	213.0	275.0

TYPE 12

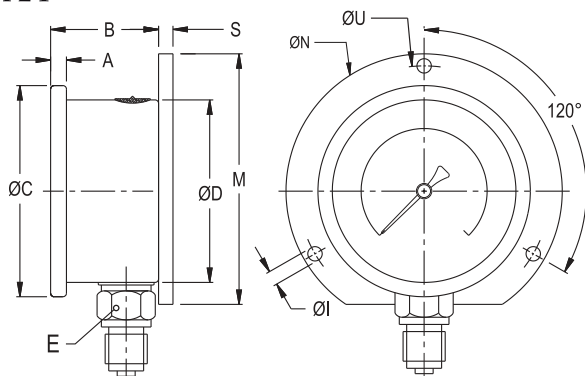


BAYONET TYPE (STANDARD)

NS	A	B	ØC	ØD	E	ØN	ØU	Weight in gram (With Box)	Weight in gram (With Glycerin & Box)
2.5"	10	32	69.5	62.5	A/F 14	86	75	213.0	275.0

DIMENSIONS - STANDARD VERSION

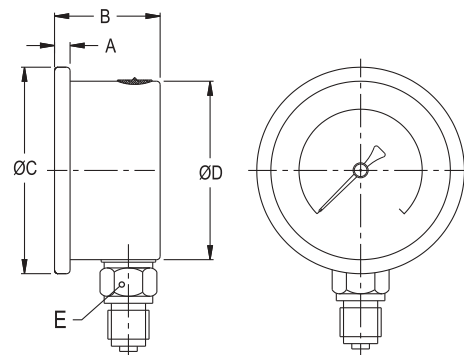
TYPE 1



ROLLING TYPE (OPTION SQ)

NS	A	B	ØC	ØD	E	S	ØN	ØI	ØU	M	Weight in gram (With Box)	Weight in gram (With Glycerin & Box)
2.5"	6.5	30.5	69	62.5	A/F 14	7	86	3.6	75	80	190.0	250.0

TYPE 2

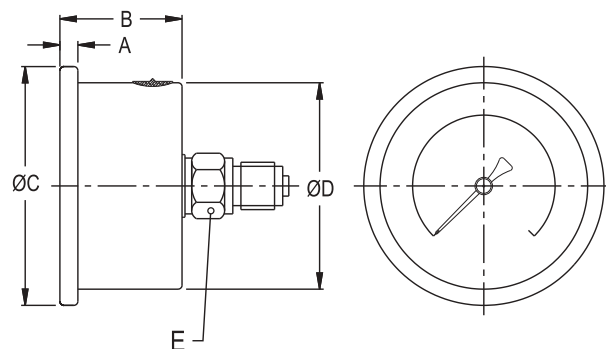


ROLLING TYPE (OPTION SQ)

NS	A	B	ØC	ØD	E	Weight in gram (With Box)	Weight in gram (With Glycerin & Box)
1.5"	5	29	45.5	41	A/F 14	90.0	130.0
2"	5	29	57.5	51.5	A/F 14	125.0	185.0
2.5"	6.5	30.5	69	62.5	A/F 14	140.0	200.0

*ROLLING TYPE (STANDARD)

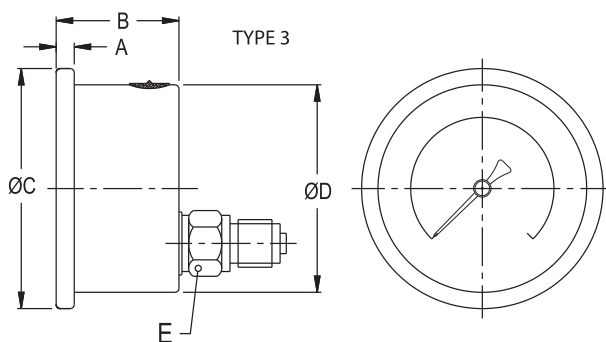
TYPE 4



ROLLING TYPE (OPTION SQ)

NS	A	B	ØC	ØD	E	Weight in gram (With Box)	Weight in gram (With Glycerin & Box)
1.5"	5	29	45.5	41	A/F 14	100.0	140.0
2"	4.5	29	57.5	51.5	A/F 14	117.0	167.0
2.5"	6.5	30.5	69	62.5	A/F 14	170.0	230.0

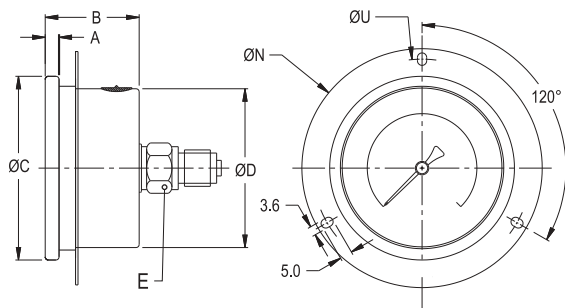
TYPE 3



ROLLING TYPE (OPTION SQ)

NS	A	B	ØC	ØD	E	Weight in gram (With Box)	Weight in gram (With Glycerin & Box)
2.5"	6.5	30.5	69	62.5	A/F 14	160.0	220.0

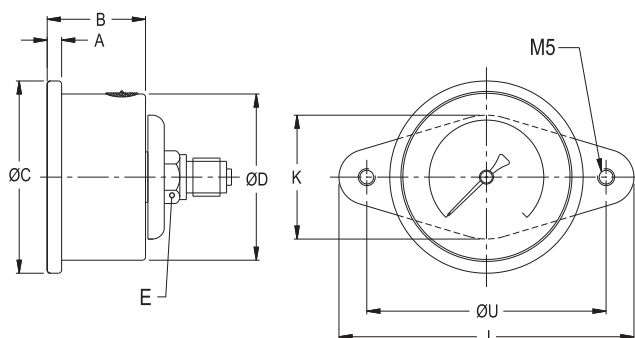
TYPE 12



ROLLING TYPE (OPTION SQ)

NS	A	B	ØC	ØD	E	ØN	ØU	Weight in gram (With Box)	Weight in gram (With Glycerin & Box)
2.5"	6.5	30.5	69	62.5	A/F 14	86	75	220.0	280.0

TYPE 13



ROLLING TYPE (STANDARD)

NS	A	B	ØC	ØD	E	J	K	ØU	Weight in gram (With Box)	Weight in gram (With Glycerin & Box)
2"	5	29	57	51.5	A/F 14	91	38	70.5	180.0	240.0
2.5"	6.5	30.5	69	62.5	A/F 14	91	38	70.5	210.0	270.0

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

ALL SS PRESSURE GAUGE

BOURDON TYPE



RANGE TABLE

Note: KleeV offers Pressure ranges, Vacuum ranges and Compound ranges in Scales like kPa, MPa, bar, psi, bar & 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 bar & psi scales.

RANGE WITH NOMINAL SIZES

NOMINAL SIZE RANGE (psi with bar) psi	Range bar	1.5"	2"	2.5"	3"
-30 inHg / 0	-760 mmHg / 0	✓	✓	✓	✓
0/15 psi	0/1 bar	✓	✓	✓	✓
0/30 psi	0/2 bar	✓	✓	✓	✓
0/60 psi	0/4 bar	✓	✓	✓	✓
0/100 psi	0/7 bar	✓	✓	✓	✓
0/150 psi	0/10 bar	✓	✓	✓	✓
0/220 psi	0/16 bar	✓	✓	✓	✓
0/300 psi	0/20 bar	✓	✓	✓	✓
0/400 psi	0/28 bar	✓	✓	✓	✓
0/500 psi	0/35 bar	✓	✓	✓	✓
0/600 psi	0/42 bar	✓	✓	✓	✓
0/1000 psi	0/70 bar	X	✓	✓	✓
0/1500 psi	0/100 bar	X	✓	✓	✓
0/2200 psi	0/160 bar	X	✓	✓	✓
0/3000 psi	0/200 bar	X	✓	✓	✓
0/4000 psi	0/280 bar	X	✓	✓	✓
0/5000 psi	0/350 bar	X	✓	✓	✓
0/6000 psi	0/400 bar	X	✓	✓	✓
0/10000 psi	0/700 bar	X	X	✓	✓
0/15000 psi	0/1000 bar	X	X	✓	✓
- 30 inHg /30	- 1/2 bar	X	X	✓	✓
- 30 inHg /60	- 1/4 bar	X	X	✓	✓
- 30 inHg /100	- 1/7 bar	X	X	✓	✓
- 30 inHg /150	- 1/10 bar	X	X	✓	✓
- 30 inHg /200	- 1/14 ar	X	X	✓	✓
- 30 inHg /300	- 1/21 bar	X	X	✓	✓

AMMONIA WITH TEMPERATURE SCALE

- 30" Hg / 150 psi	X	X	✓	✓
- 30" Hg / 300 psi	X	X	✓	✓
0/300 psi	X	X	✓	✓
-1/12.5 bar	X	X	✓	✓
-1/16 bar	X	X	✓	✓
1/25 bar	X	X	✓	✓

ACCESSORIES (Refer Datasheet For Complete Specifications)

KEC	GAUGE COCK	KEG	SNUBBER
KED	OVERLOAD PROTECTOR (GAUGE SAVER)**	KEH	SIPHON
*	NEEDLE VALVE	KEB	COOLING TOWER

* Refer catalogue for Valves & Manifolds ** For Pressure Ranges.

ALL SS PRESSURE GAUGE

BOURDON TYPE



HOW TO ORDER

Example

BASIC MODEL
CODE

KAD

NOMINAL SIZE	15	20	25	30
	1.5"	2"	2.5"	3"
TYPE OF MOUNTING	15	20	25	30
1 WALL/ SURFACE/ PROJECTION MOUNTING WITH BOTTOM ENTRY	X	X	✓	✓
2 DIRECT BOTTOM ENTRY	✓	✓	✓	✓
3 DIRECT LOWER BACK ENTRY	X	X	✓	X
4 DIRECT CENTER BACK ENTRY	✓	✓	✓	✓
5 LOWER BACK ENTRY WITH FRONT FLANGE	X	X	✓	X
12 CENTER BACK ENTRY WITH FRONT FLANGE	X	X	✓	X
13 CENTER BACK ENTRY WITH MOUNTING BRACKET	X	✓	✓	X

XX

X
OR
XX

Note: *Applicable for Rolling type design only.

GAUGE CONNECTION	15	20	25	30
1BM 1/8" BSP(M)	✓	✓	✓	X
1NM 1/8" NPT(M)	✓	✓	✓	X
1TM 1/8" BSPT(M)	✓	✓	✓	X
2BM 1/4" BSP(M)	X	✓	✓	X
2NM 1/4" NPT(M)	X	✓	✓	X
2TM 1/4" BSPT(M)	X	✓	✓	X
3BM 3/8" BSP(M)	X	X*	X*	✓
3NM 3/8" NPT(M)	X	X*	X*	✓
3TM 3/8" BSPT(M)	X	X*	X*	✓
4BM 1/2" BSP(M)	X	X*	X*	X*
4NM 1/2" NPT(M)	X	X*	X*	X*
4TM 1/2" BSPT(M)	X	X	X*	X*

* These connections will be provided on request. Consult factory for minimum order quantity, price & delivery.

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

RANGE

Refer Range Table

0/10
bar

OPTIONAL EXTRAS

CD CUSTOM DESIGNED DIAL	MT MATERIAL TEST CERTIFICATES***
OS OXYGEN SERVICE (FOR DRY VERSION)	SX SS TAG PLATE
SS AISI 316 SS CASE & BEZEL*#	LT HELIUM LEAK TEST
TI MONEL BOURDON & SOCKET (MONEL VERSION)**	IDS INTEGRAL DAMPENING SCREW (AISI 316 SS)
SQ CASE WITH ROLLING TYPE BEZEL**	P6 ENCLOSURE PROTECTION IP 66
C5 FIVE POINT CALIBRATION CERTIFICATE	P7 ENCLOSURE PROTECTION IP 67
FG FILLABLE LIQUID GLYCERINE	CT CALIBRATION CERTIFICATE TRACEABLE TO NATIONAL/ INTERNATIONAL STANDARDS
FS FILLABLE LIQUID SILICON OIL***	MJ MOVEMENT WITH DAMPENING JELLY*#
DG DAMPENING LIQUID GLYCERINE FILLED	1A ACCURACY ± 1.0% OF F. S.*#
DS DAMPENING LIQUID SILICON OIL FILLED***	ZD AMMONIA RANGE (WITH TEMPERATURE SCALE)
	25 25 MM BOD (EXCEPT MOUNTING CBM, CBMFF & CBMBR)

* Applicable for NS 2.5".

Applicable for NS 3".

** Applicable for NS 1.5", 2" & 2.5".

*** GASKET & FILLING 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.

Ordering Example : KAD - XX - X OR XX - XXX - 0/10 bar - 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.

KLEEV USA INC.

833 Claude Laurel Dr, Apex, NC 27523, USA

Telephone: +1(919)-924-0408 | Fax: +1(919)-267-3859 | Email: info@kleevusa.com | Website: www.kleevusa.com