

Bourdon Tube, ≤ DN100

MIEPL make SS Pressure Gauges are based on the proven Bourdon tube measuring system. On pressurization, the deflection of the Bourdon tube, proportional to the incident pressure, is transmitted to the movement via a link and indicated. The modular design enables a multitude of combinations of case materials, process connections, nominal sizes and scale ranges.



FEATURES

- ⇒ All SS Measuring System
- ⇒ Socket-Case, Direct Welded
- ⇒ Dry / Liquid filled

APPLICATION

- ⇒ Food & Beverages
- ⇒ Chemical & Petrochemical
- ⇒ Corrosive environments
- ⇒ Liquid & gaseous mediums

REFERENCE

- ⇒ EN 837-1

STANDARD SPECIFICATIONS

Dial size	: DN40 / DN50 / DN63 / DN80 / DN100
Range	: -1...400bar (DN40 / DN50) : -1...1,000bar (DN63 / DN80 / DN100)
Mounting pattern	: Direct, Bottom connection
Process connection	: 1/8" NPT / 1/4" NPT (M) / 1/4" BSP (M)
Ingress protection	: IP 54 / IP 65
Execution	: Dry / Dry but fillable

STANDARD PARAMETERS

Accuracy	: CL 1.6 (DN 63/ DN80/DN100) & CL2.5 (DN40 / DN50)
Ambient Temperature	: -40... +65°C (without dampening liquid) : -20... +65°C (with dampening liquid)
Service Temperature	: 300°C max.
Pressure Limits	: Steady pressure up to FS value : Fluctuating pressure up to 90% of FS value : Short time 1.3 x FS value for range up to 100 bar : Short time 1.15 x FS value for range above 100 bar
Weld Joints	: TIG argon arc welding

MATERIAL OF CONSTRUCTION

Sensing Element	: Bourdon Tube (<100 bar : C - type , >100 bar : Helical)
Case & Ring Material	: AISI 304 SS (Bayonet type)
Bourdon Tube & Shank	: AISI 316L SS (Shank welded directly to case)
Movement mechanism	: AISI 304 SS
Dial	: Aluminum, black graduation on white background
Pointer	: Fixed, aluminum, black powder coated
Gaskets, Blow off disc & filling plug	: Neoprene / NBR
Window	: Plexi glass

STAND. SPECIFICATIONS: DAMPENING LIQUID FILLED, GLYCERIN

Window	: Plexi glass
Dampening liquid	: Glycerin 99.7% [Service temperature up to 65°C]

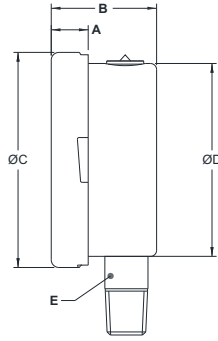
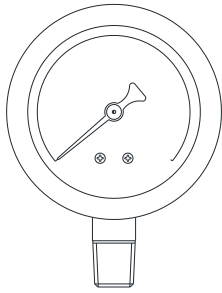
TEMPERATURE EFFECT

Please refer clause no 9.0 of EN 837-1

** DN250 available as standard "Dry" (Code E1) version. For other versions contact factory.

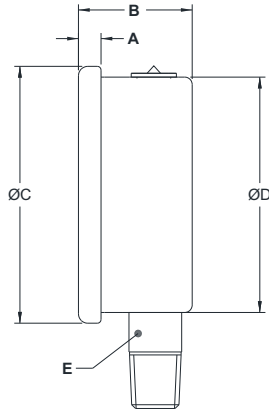
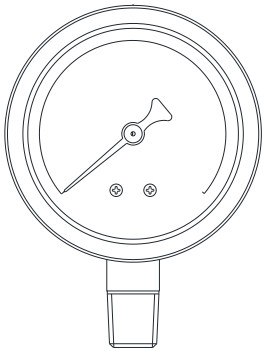
DRAWING

DIMENSIONAL DRAWING



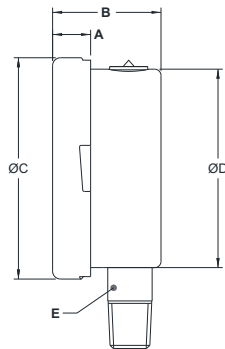
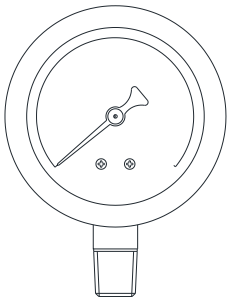
Type - 1A (Bayonet ring)			
DN	40	50	63
A	9	9	12
B	32.5	34	33
ØC	46.5	58.5	69.7
ØD	41	52	62.5
E	SQ.14	SQ.14	SQ.14
Weight (gm)	90	130	220

DIMENSIONAL DRAWING



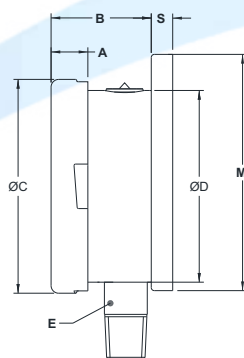
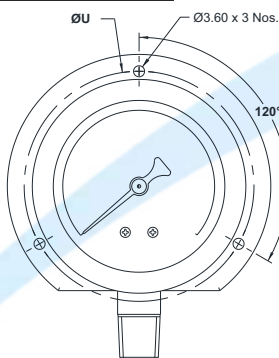
Type - 1A (Rolling ring)			
DN	40	50	63
A	5	5	5
B	29	32.5	31.5
ØC	45.5	57.5	68
ØD	41	51.5	62.5
E	SQ.14	SQ.14	SQ.14
Weight (gm)	90	120	200

DIMENSIONAL DRAWING



Type - 1A (Bayonet Ring)		
DN	80	100
A	9.5	12
B	33.5	38
ØC	89.5	111
ØD	80	100
E	A/F14	A/F14
Weight (gm)	460	510

DIMENSIONAL DRAWING

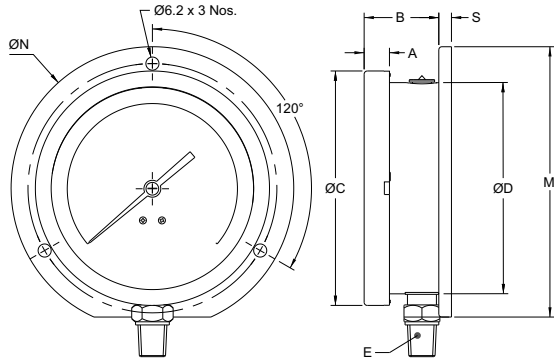


Type - 1B (Bayonet Ring)	
DN	63
A	12
B	33
ØC	69.7
ØD	62.7
E	SQ.14
ØN	86
ØU	75
M	77
S	7
Weight (gm)	270

All dimensions are in mm.

DRAWING

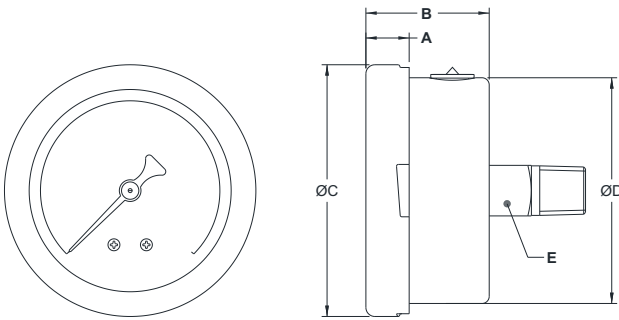
DIMENSIONAL DRAWING



Type - 1B (Bayonet Ring)

DN	100
A	12
B	38
ØC	111
ØD	100
E	A/F14
ØN	134
ØU	118
M	128
S	6
Weight (gm)	620

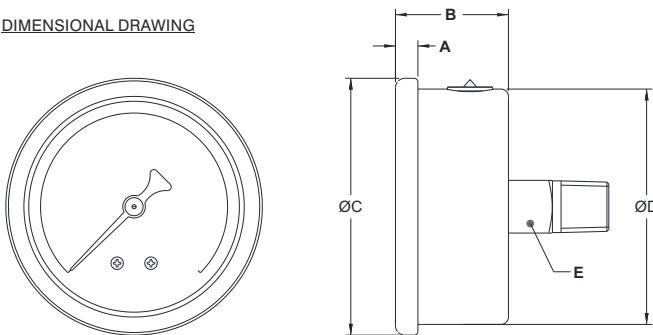
DIMENSIONAL DRAWING



Type 2A (Bayonet ring)

DN	40	50	63
A	9	9	12
B	32.5	34	33
ØC	46.5	58.5	69.7
ØD	41	52	62.5
E	SQ.14	SQ.14	SQ.14
Weight (gm)	90	130	220

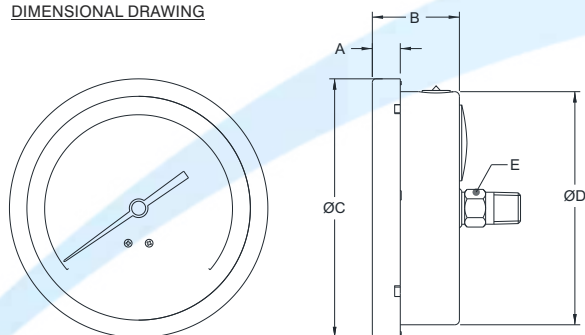
DIMENSIONAL DRAWING



Type 2A (Rolling ring)

DN	40	50	63
A	5	5	5
B	29	32.5	31.5
ØC	45.5	57.5	68
ØD	41	51.5	62.5
E	SQ.14	SQ.14	SQ.14
Weight (gm)	100	120	200

DIMENSIONAL DRAWING



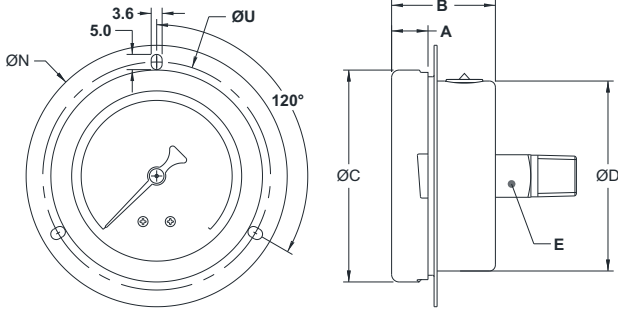
Type - 2A (Bayonet Ring)

DN	80	100
A	9.5	12
B	33.5	38
ØC	89.5	111
ØD	80	100
E	A/F14	A/F14
Weight (gm)	460	510

All dimensions are in mm.

DRAWING

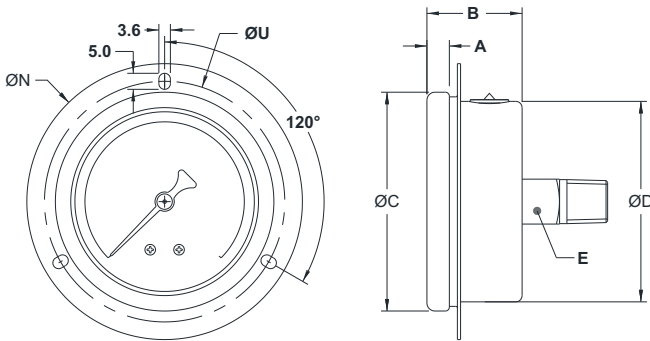
DIMENSIONAL DRAWING



Type - 2C (Bayonet Ring)

DN	63
A	12
B	33
ØC	69.7
ØD	62.5
E	SQ.14
ØN	86
ØU	75
Weight (gm)	250

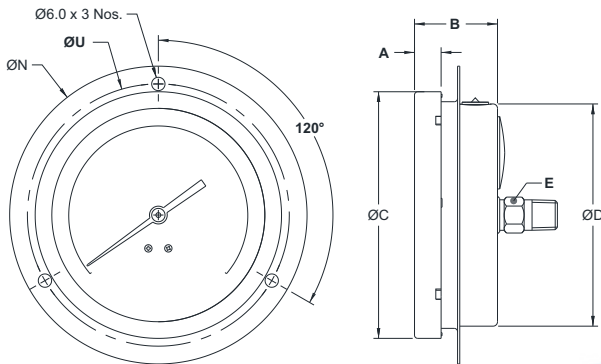
DIMENSIONAL DRAWING



Type - 2C (Rolling Ring)

DN	63
A	5
B	31.5
ØC	68
ØD	62.5
E	SQ.14
ØN	86
ØU	75
Weight (gm)	200

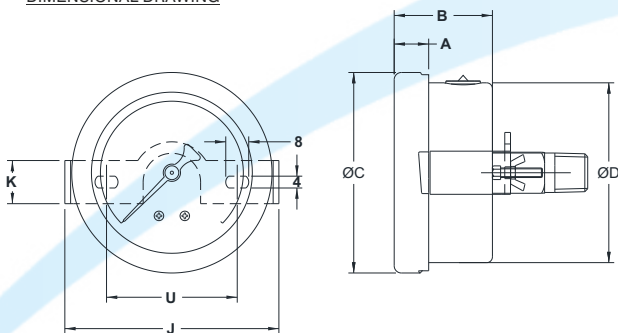
DIMENSIONAL DRAWING



Type - 2C (Bayonet Ring)

DN	100
A	12
B	38
ØC	111
ØD	100
E	A/F14
ØN	134
ØU	118
Weight (gm)	590

DIMENSIONAL DRAWING



Type - 2D (Bayonet Ring)

DN	50	63
A	9	12
B	34	33
ØC	58.5	69.7
ØD	51	62.5
E	SQ.14	SQ.14
U	70.5	70.5
J	91	91
K	38	38
Weight (gm)	180	270

All dimensions are in mm.

DRAWING

DIMENSIONAL DRAWING

Type - 2D (Rolling Ring)		
DN	50	63
A	9	12
B	34	33
ØC	58.5	69.7
ØD	51	62.5
E	SQ.14	SQ.14
U	70.5	70.5
J	91	91
K	38	38
Weight (gm)	180	270

DIMENSIONAL DRAWING

Type - 2E (Bayonet Ring)	
DN	63
A	12
B	33
ØC	69.7
ØD	62.5
E	SQ.14
Weight (gm)	220

DIMENSIONAL DRAWING

Type - 2E (Rolling Ring)	
DN	63
A	5
B	31.5
ØC	68
ØD	62.5
E	SQ.14
Weight (gm)	200

DIMENSIONAL DRAWING

Type - 2F (Bayonet Ring)	
DN	63
A	12
B	33
ØC	69.7
ØD	62.5
E	SQ.14
ØN	86
ØU	75
Weight (gm)	250

DIMENSIONAL DRAWING

Type - 2G (Bayonet Ring)		
DN	50	63
A	9	12
B	34	33
ØC	58.5	69.7
ØD	51	62.5
E	SQ.14	SQ.14
U	45.5	45.5
J	74.5	74.5
K	15	15
Weight (gm)	170	260

ORDERING CODE

MP03 - B - XXX - 1A - 2NM - IP2 - E2

1. DIAL SIZE	50 mm / 2"	B				
	63 mm / 2½"	C				
	80mm / 3"	I				
	100 mm / 4"	D				
2. RANGE	Refer "Range Table"		XXX			
3. MOUNTING PATTERN	Direct, Bottom connection		1A			
	Wall / Surface / Projection mounting, Bottom connection		1B			
	Centre, Back connection ²		2A			
	Panel / Front flange mounting, Centre Back connection		2C			
	Panel / Bracket mounting, Centre Back connection		2D			
	Lower, Back connection		2E			
	Panel / Front flange mounting, Lower Back connection		2F			
Panel / Bracket mounting, Lower Back connection		2G				
4. PROCESS CONNECTION	1/8" NPT (M)			1NM		
	¼" NPT (M)			2NM		
	½" NPT (M)			4NM		
	1/8" BSP (M)			1BM		
	¼" BSP (M)			2BM		
	3/8" BSP (M)			3BM		
	½" BSP (M)			4BM		
	M20 X 1.5 mm (M)			4MM		
Other thread size and standards available on request. ¹						
5. INGRESS PROTECTION	IP 65				IP2	
	IP 66				IP3	
	IP 67				IP4	
6. EXECUTION	Dry ²					E1
	Dry but fillable					E2
	Dampening liquid filled, glycerine					E4
	Dampening liquid filled, silicon oil					E5
7. OTHER OPTION	Case & Ring in AISI 316 SS (1A)	AA	Shatterproof safety glass	FC	Material test certificate 3.1	SM
	Case & Ring in AISI 316 SS (1B)	AB	Toughened glass	FD	Certification for oxygen service	SO
	Case & Ring in AISI 316 SS (2A)	AG	Maximum Reading pointer (MRP)	FW	Performance test	SP
	Case & Ring in AISI 316 SS (2C)	AI	Freon scale	F9	SS tag plate, AISI 304 SS	WF
	Case & Ring in AISI 316 SS (2D)	AJ	Dial with Ammonia temperature scale	M9	SS tag plate, AISI 316 SS	WG
	Case & Ring in AISI 316 SS (2E)	AK	Rubber parts, Viton	QA	Rolling type case & ring	WO
	Case & Ring in AISI 316 SS (2F)	AL	Vent plug, ON-OFF type	QW	Custom designed dial	WR
	Case & Ring in AISI 316 SS (2G)	AM	5 - point calibration certificate	SA	Dial tag marking	WT
	Dampening screw, AISI 316 SS	DN	Helium leak testing	SL	Two piece construction	D7

Ordering Example : **MP03 - B - XXX - 1A - 2NM - IP2 - E2**

1. For other connections, please contact factory.

3. DN 40 Gauges will be supplied with IP 54 Protection only

2. Available with Ingress Protection IP 54 (Dust Proof) only.