

Bourdon Tube, \geq 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

- Liquid & gaseous mediums
- Corrosive environments
- Oil & Gas applications
- Chemical & Petrochemical
- Food & Beverages
- Nuclear power plants

REFERENCE

- EN 837-1

STANDARD SPECIFICATIONS

Dial size	: DN100 / DN125 / DN150 / DN250
Range	: -1...0...1,600 bar
Mounting pattern	: Direct, Bottom connection
Process connection	: 1/2" NPT (M) / 1/2" BSP (M)
Ingress protection	: IP 54 / IP 65
Execution	: Dry / Dry but fillable

STANDARD PARAMETERS

Accuracy	: CL 1.0
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	: Micro-zero adjustable, aluminum, black powder coated
Gaskets, Blow off disc & filling plug	: Neoprene / NBR
Window	: Sheet glass / Shatterproof safety glass

STAD. SPECIFICATIONS: DAMPENING LIQUID FILLED, GLYCERIN

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

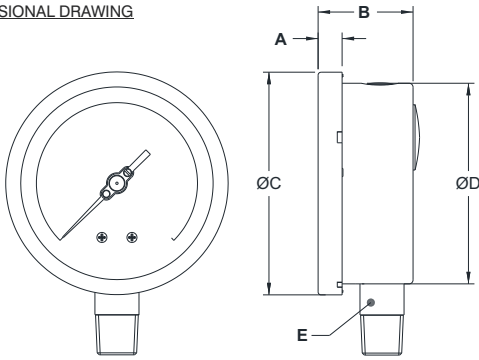
TEMPERATURE EFFECT

Please refer clause no 9.0 of EN 837-1

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

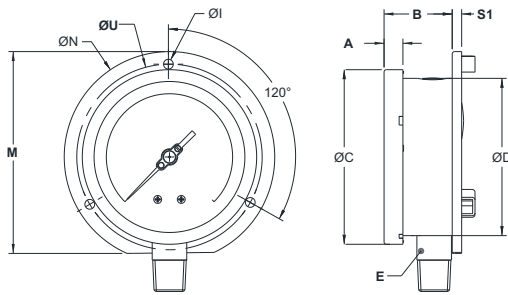
DRAWING

DIMENSIONAL DRAWING



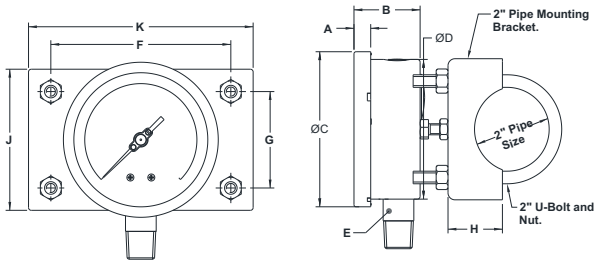
Type - 1A				
DN	100	125	150	250
A	12	15	15	18.5
B	48	48	48	50
ØC	111	129	161	263
ØD	100	118.5	149	250
E	SQ.22	SQ.22	SQ.22	SQ.22
Weight (gm)	506	694	900	2100

DIMENSIONAL DRAWING



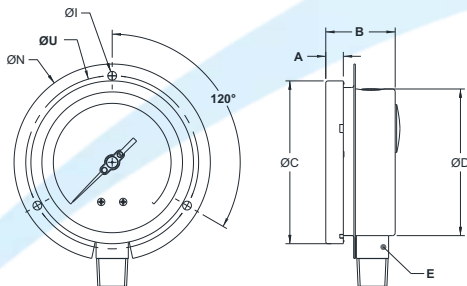
Type - 1B				
DN	100	125	150	250
A	12	15	15	18.5
B	52	50	52	51.5
ØC	111	129	161	263
ØD	100	118.5	149	250
ØE	SQ.22	SQ.22	SQ.22	SQ.22
ØI	6	6	6	7
M	128	143.5	172.4	172.4
ØN	134	150	186	290
S1	6	4	6	1.5
ØU	118	137	168	276
Weight (gm)	613	796	1080	2448

DIMENSIONAL DRAWING



Type - 1C		
DN	100	150
A	12	15
B	48	48
ØC	111	161
ØD	100	149
E	SQ.22	SQ.22
F	129	129
G	69	69
H	39	39
J	101	101
K	161	161
Weight (gm)	1580	1974

DIMENSIONAL DRAWING

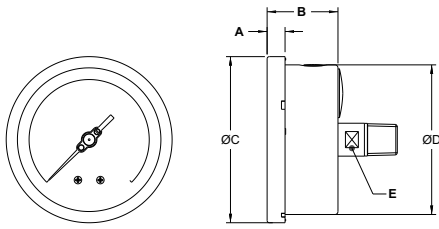


Type - 1D		
DN	100	150
A	12	15
B	48	48
ØC	111	161
ØD	100	149
E	SQ.22	SQ.22
ØI	6	6
ØN	134	186
ØU	118	168
Weight (gm)	580	2433

All dimensions are in mm.

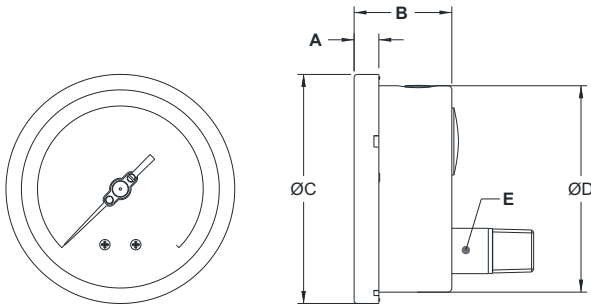
DRAWING

DIMENSIONAL DRAWING



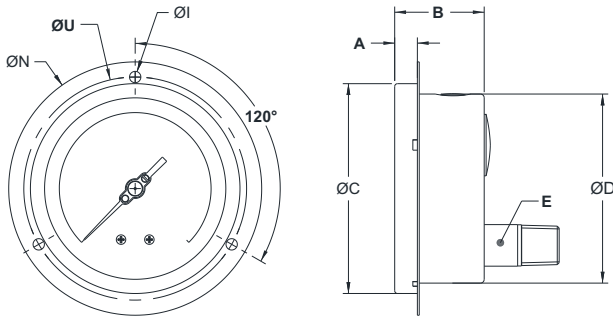
Type - 2A		
DN	100	125
A	12	15
B	48	48
ØC	111	161
ØD	100	149
E	A/F 17	A/F 17
Weight (gm)	506	2100

DIMENSIONAL DRAWING



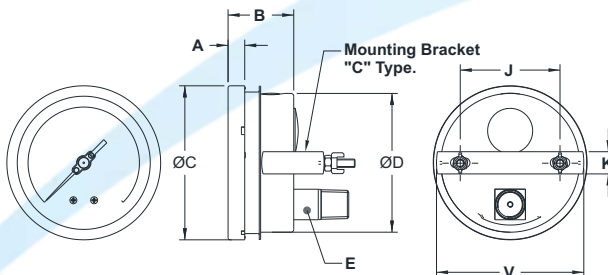
Type - 2E				
DN	100	125	150	250
A	12	15	15	18.5
B	48	48	48	50
ØC	111	129	161	263
ØD	100	118.5	149	250
E	SQ.22	SQ.22	SQ.22	SQ.22
Weight (gm)	506	694	900	2100

DIMENSIONAL DRAWING



Type - 2F				
DN	100	125	150	250
A	12	15	15	18.5
B	48	48	48	50
ØC	111	129	161	263
ØD	100	118.5	149	250
E	SQ.22	SQ.22	SQ.22	SQ.22
ØI	6	6	6	7
ØN	134	150	186	290
ØU	118	137	168	276
Weight (gm)	580	770	1016	2433

DIMENSIONAL DRAWING



Type -2G				
DN	100	125	150	250
A	12	15	15	18.5
B	48	48	48	50
ØC	111	129	161	263
ØD	100	118.5	149	250
E	SQ.22	SQ.22	SQ.22	SQ.22
J	72	75	106.5	180
K	16	15	16	30
V	108	125	158.5	270
Weight (gm)	595	790	1066	2310

All dimensions are in mm.

ORDERING CODE

MP01 - D - XXX - 1A - 4NM - IP2 - E2 - AA

ORDERING CODE	D	XXX	1A	4NM	IP2	E2	AA
1. DIAL SIZE	100 mm / 4"	D					
	125 mm / 4½"	E					
	150 mm / 6"	F					
	250 mm / 10"	H					
2. RANGE	Refer "Range Table"		XXX				
3. MOUNTING PATTERN	Direct, Bottom connection		1A				
	Wall/Surface/Projection mounting, Bottom connection		1B				
	2" Pipe/Yoke mounting, Bottom connection		1C				
	Panel/Front flange mounting, Bottom connection (available in DN100 / DN150)		1D				
	Centre, Back connection ²		2A				
	Lower, Back connection		2E				
	Panel/Front flange mounting, Lower Back connection		2F				
Panel/bracket mounting, Lower Back connection		2G					
4. PROCESS CONNECTION	¼" BSP (M)			2BM			
	¼" NPT (M)			2NM			
	3/8" BSP (M)			3BM			
	½" BSP (M)			4BM			
	M20 X 1.5 mm (M)			4MM			
	½" NPT (M)			4NM			
Other thread size and standards available on request. ¹							
5. INGRESS PROTECTION	IP 65				IP2		
	IP 66				IP3		
	IP 67				IP4		
6. EXECUTION	Dry ⁵					E1	
	Dry but fillable					E2	
	Dampening liquid filled, glycerine					E4	
	Dampening liquid filled, silicon oil					E5	
7. OTHER OPTIONS	Case & Ring in AISI 316 SS (1A)	AA	Shatterproof safety glass	FC	CE certificate		SE
	Case & Ring in AISI 316 SS (1B)	AB	Toughened glass	FD	IBR certification		SI
	Case & Ring in AISI 316 SS (1C)	AC	AISI 316 SS movement	FL	Helium leak testing		SL
	Case & Ring in AISI 316 SS (1D)	AD	Dampened movement	FM	Material test certificate 2.2		SM
	Case & Ring in AISI 316 SS (2A)	AG	Maximum Reading pointer ³	FW	Tested to NACE standards		SN
	Case & Ring in AISI 316 SS (2E)	AK	Knife edge pointer	FX	Certification for oxygen service		SO
	Case & Ring in AISI 316 SS (2F)	AL	Monel wetted parts	LN	Performance test		SP
	Case & Ring in AISI 316 SS (2G)	AM	Dial with Ammonia temperature scale	M9	C.C. ⁶ with NABL traceability		ST
	Dampening screw, Monel	DM	Over range protection 1.5 x FS	NP	Accuracy CL 0.5 / CL 0.6 of FS		WA
	Dampening screw, AISI 316 SS	DN	High over pressure protection ⁸	NS	SS tag plate, AISI 304 SS		WF
	Internal overload stop	DX	Epoxy coating (Case & Ring)	O8	SS tag plate, AISI 316 SS		WG
	Internal vacuum stop	DY	Receiver gauge ⁴	Q9	Electro polished (Case & Ring)		WK
	Pointer stop on dial	DZ	Rubber parts, Viton	QA	Anti-parallax mirror band		WN
	Eco Version ⁷	D8	Vent plug, ON-OFF type	QW	Custom designed dial		WR
	Dial with Freon temperature scales	F9	5 - point calibration certificate	SA	Dial tag marking		WT
	Plexi glass	FB	Material test certificate 3.1	SC			

Ordering Example : **MP01 - D - XXX - 1A - 4NM - IP2 - E2 - AA**

1. For other connections, please contact factory.

3. Available in dry version with accuracy CL 1.0 or above.

5. Available with Ingress Protection IP 54 (dust proof) only.

7. Supplied with AISI 304 SS wetted parts, fix pointer, single color dial & accuracy CL 1.6.

2. Available in DN100 only.

4. Please specify the second scale required.

6. C.C. = Calibration Certificate.

8. Refer Factory For Conformation.