

## DIN Style Case &amp; Ring

**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 application
- ⇒ Nuclear power plants

## REFERENCE

- ⇒ EN 837-1,

## STANDARD SPECIFICATIONS

Dial size	: DN63 / DN100 / DN150
Range	: -1...0...1,600bar (DN100/DN150) : -1...0...1,000bar (DN63)
Mounting pattern	: Direct, Bottom connection
Process connection	: ½" NPT (M) / ½" BSP (M) [DN100/DN150] : ¼" NPT (M) / ¼" BSP (M) [DN63]
Ingress protection	: IP 65
Execution	: Dry but fillable

## STANDARD PARAMETERS

Accuracy	: CL 1.0 (DN 100/ DN150) & CL1.6 (DN63)
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), DIN style
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	: Shatterproof safety glass

## STAD. SPECIFICATIONS: DAMPENING LIQUID FILLED, GLYCERIN

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

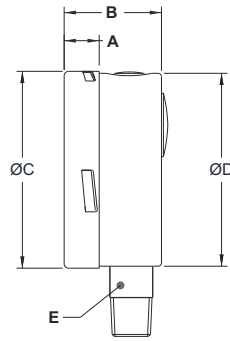
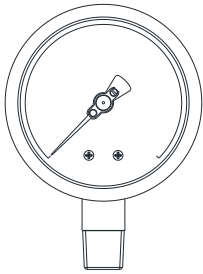
## TEMPERATURE EFFECT

Please refer clause no 9.0 of EN 837-1

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

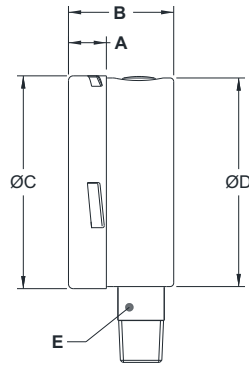
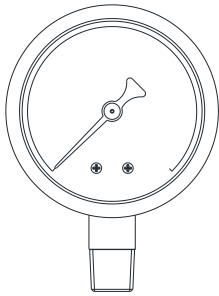
## DRAWING

DIMENSIONAL DRAWING



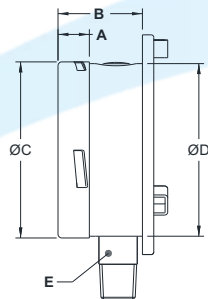
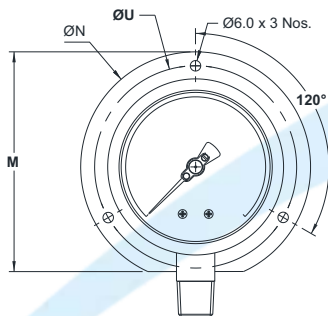
Type - 1A	
DN	63
A	12
B	32
ØC	64
ØD	61.7
E	SQ.14
Weight (gm)	210

DIMENSIONAL DRAWING



Type - 1A		
DN	100	150
A	16.5	17
B	50	51
ØC	101	162
ØD	99	159
E	SQ.22	SQ.22
Weight (gm)	520	910

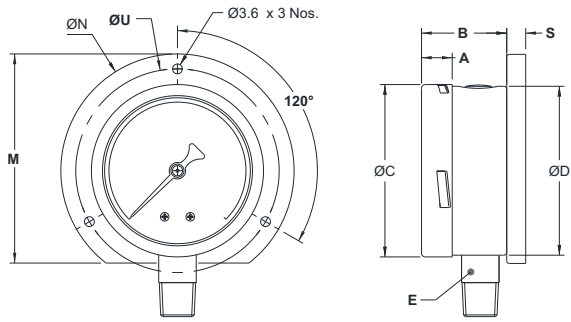
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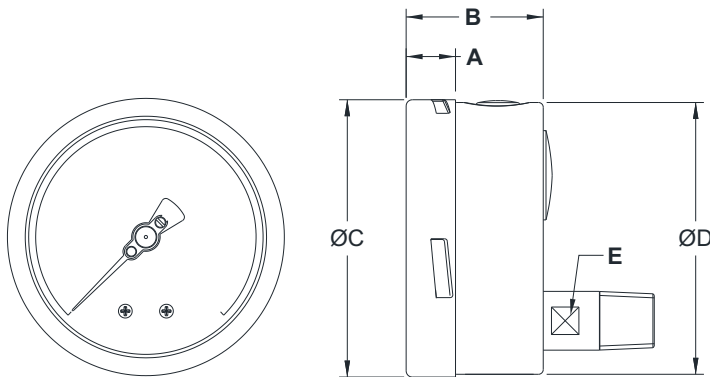
Type - 1B	
DN	63
A	12
B	32
ØC	64
ØD	61.7
E	SQ.14
M	80
ØN	86
S	7
ØU	75
Weight (gm)	250

All dimensions are in mm.

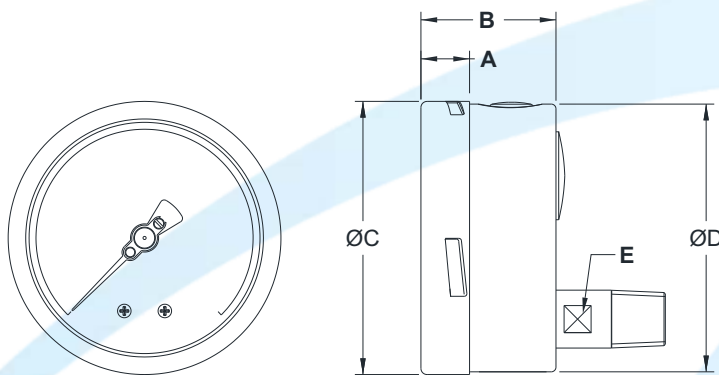
### DRAWING



Type - 1B		
DN	100	150
A	16.5	17
B	54	55
$\varnothing C$	101	162
$\varnothing D$	99	159
E	SQ.22	SQ.22
M	126	188
$\varnothing N$	132	196
$\varnothing U$	116	178
Weight (gm)	610	1080



Type - 2A	
DN	63
A	12
B	32
$\varnothing C$	64
$\varnothing D$	61.7
E	SQ.14
Weight (gm)	210



Type - 2E		
DN	100	150
A	16.5	17
B	50	51
$\varnothing C$	101	162
$\varnothing D$	99	159
E	A/F 18	A/F 18
Weight (gm)	510	910

All dimensions are in mm.

## ORDERING CODE

MP04 - D - XXX - 1A - 4NM - IP2 - E1

1. DIAL SIZE	63 mm / 2.5"	C				
	100 mm / 4"	D				
	150mm / 6"	F				
2. RANGE	Refer "Range Table"		XXX			
3. MOUNTING PATTERN	Direct, Bottom connection			1A		
	Wall / Surface / Projection mounting, Bottom connection			1B		
	Centre, Back connection <sup>2</sup>			2A		
	Lower, Back connection			2E		
	Panel / Front flange mounting, Lower Back connection			2F		
	Panel / Bracket mounting, Lower Back connection			2G		
4. PROCESS CONNECTION	1/4" BSP (M)				2BM	
	1/4" NPT (M)				2NM	
	3/8" BSP (M)				3BM	
	1/2" BSP (M)				4BM	
	M20 X 1.5 mm (M)				4MM	
	1/2" NPT (M)				4NM	
	Other thread size and standards available on request. <sup>1</sup>					
5. INGRESS PROTECTION	IP 65					IP2
	IP 66					IP3
	IP 67					IP4
6. EXECUTION	Dry <sup>7</sup>					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	AISI 316 SS movement	FL	IBR certification	SI
	Case & Ring in AISI 316 SS (1B)	AB	Dampened movement	FM	Helium leak testing	SL
	Case & Ring in AISI 316 SS (2A)	AG	Maximum Reading pointer <sup>3</sup>	FW	Material test certificate 2.2	SM
	Case & Ring in AISI 316 SS (2E)	AK	Knife edge pointer	FX	Tested to NACE standards	SN
	Case & Ring in AISI 316 SS (2F)	AL	Monel wetted parts	LN	Certification for oxygen service	SO
	Case & Ring in AISI 316 SS (2G)	AM	Dial with Ammonia temperature scale	M9	Performance test	SP
	Dampening screw, Monel	DM	Over range protection 1.5 x FS	NP	C.C. <sup>6</sup> with NABL traceability	ST
	Dampening screw, AISI 316 SS	DN	Epoxy coating (Case & Ring)	O8	Accuracy CL 0.5 / CL 0.6 of FS	WA
	Internal overload stop	DX	Receiver gauge <sup>4</sup>	Q9	SS tag plate, AISI 304 SS	WF
	Internal vacuum stop	DY	Rubber parts, Viton	QA	SS tag plate, AISI 316 SS	WG
	Pointer stop on dial	DZ	Vent plug, ON-OFF type	QW	Electro polished (Case & Ring)	WK
	Dial with Freon temperature scales	F9	5 - point calibration certificate	SA	Anti-parallax mirror band	WN
	Plexi glass	FB	Material test certificate 3.1	SC	Custom designed dial	WR
	Toughened glass	FD	CE certificate	SE	Dial tag marking	WT

Ordering Example : **MP04 - D - XXX - 1A - 4NM - IP2 - E1**

1. For other connections, please contact factory.

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

5. For options applicable to dial size code 25, please refer model MP03.

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

2. Available in DN100 & DN150 only.

4. Please specify the second scale required.

6. C.C. = Calibration Certificate