The TMP103 All Stainless Steel Pressure Gauge with bourdon tube sensing element offers a robust design in housing size ≤ DN100.

Applications

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

Features

- All SS measuring system
- Socket-case, direct welded
- Dry / liquid filled

Reference

- EN 837-1
- ATEX 2014/34/UE

Standard parameters	
Accuracy	CL 1.6 (DN63 / DN80 / DN100) & CL 2.5 (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
Measuring range	-1 ... 0 bar, -600 ... 0 mbar to 0 ... 1000 bar
Weld joints	TIG argon arc welding

Ordering code

		TMP103 - XX	- XXX	- XX	- XXX	- XX	- XX	- XX
1. Dial size	50 mm / 2"	02						
	63 mm / 2½"	25						
	80 mm / 3"	03						
	100 mm / 4"	04						
2. Range	Refer "Range Table"		XXX					
3. Mounting pattern	Direct, Bottom connection			B0				
	Wall/Surface/Projection mounting, Bottom connection			B1				
	Centre, Back connection[2]			R0				
	Panel/Front flange mounting, Centre Back connection			R2				
	Panel/bracket mounting, Centre Back connection			R3				
	Lower, Back connection			L0				
	Panel/Front flange mounting, Lower Back connection			L1				
	Panel/bracket mounting, Lower Back connection			L2				
4. Process connection[1]	1/8" NPT (M)				11N			
	¼" NPT (M)				12N			
	½" NPT (M)				14N			
	1/8" GAS (M)				11B			
	¼" BSP (M)				12B			
	3/8" BSP (M)				13B			
	½" BSP (M)				14B			
	M20 X 1.5 mm (M)				14M			
5. Ingress protection	IP 65					ER		
	IP 66					ES		
	IP 67					ET		
6. Execution	Dry[2]						EA	
	Dry but fillable						EB	
	Dampening liquid filled, glycerine						EG	
	Dampening liquid filled, silicon oil						EH	

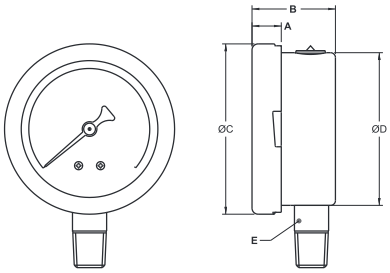
7. Other options					
	Case & Ring in AISI 316 SS (B0)	BA	Toughened glass	GD	Performance test	TP
	Case & Ring in AISI 316 SS (B1)	BB	Maximum Reading pointer[3]	GW	SS tag plate, AISI 304 SS	XF
	Case & Ring in AISI 316 SS (R0)	BG	Dial with Freon temperature scales	G9	SS tag plate, AISI 316 SS	XG
	Case & Ring in AISI 316 SS (R2)	BI	Dial with Ammonia temperature scale	N9	Rolling type case & ring	XO
	Case & Ring in AISI 316 SS (R3)	BJ	Rubber parts, Viton	RA	Custom designed dial	XR
	Case & Ring in AISI 316 SS (L0)	BK	Vent plug, ON-OFF type	RW	Dial tag marking	XT
	Case & Ring in AISI 316 SS (L1)	BL	5 - point calibration certificate	TA	Two-piece construction	E7
	Case & Ring in AISI 316 SS (L2)	BM	Helium leak testing	TL	ATEX Version[4]	AX
	Dampening screw, AISI 316 SS	EN	Material test certificate 2.2	TM		
	Shatterproof safety glass	GC	Certification for Oxygen service	TO		

[1] For other connections, please contact factory.
[2] Available with Ingress Protection IP 54 (Dust Proof) only.
[3] Available in dry version with accuracy CL 1.0 or above.
[4] CE Ex II 2 G Ex h IIC T6...T3 Gb X
II 2 D Ex h IIIC T85°C...T200°C Db X

Specifications		
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 back-ground
	Pointer	Fixed, aluminum, black powder coated
	Gaskets, Blow off disc & filling plug	Neoprene / NBR
	Window	Plexi glass
Standard specifications	Dial size	DN50 / DN63 / DN80 / DN100
	Range	-1 ... 0 to 0 ... 400 bar (DN50) -1 ... 0 to 0 ... 1000 bar (DN 63 / DN80 / DN100)
	Mounting pattern	Direct, Bottom connection
	Process connection	¼" NPT (M) / ¼" BSP (M)
	Ingress protection	IP 54 / IP 65
	Execution	Dry / Dry but fillable
Standard specifications: dampening liquid filled, glycerin	Window	Plexi glass
	Dampening liquid	Glycerin 99.7% [Service temperature up to 65°C]
Temperature effect	When temperature of the measuring system deviates from reference temperature (+20°C) max error ±0.4% / 10K of true scale value.	

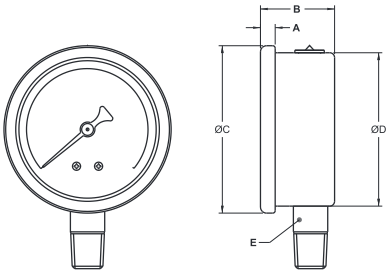
Dimensions - All dimensions are in mm

Type B0 (Bayonet ring)



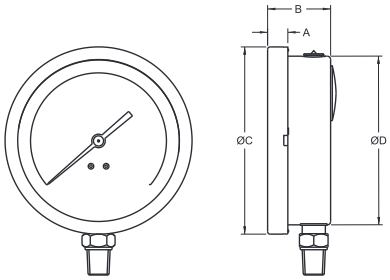
DN	A	B	ØC	ØD	E	Weight (grams)
50	9	34	58,5	52	SQ.14	120
63	12	33	69,7	62,5	SQ.14	209

Type B0 (Rolling ring)



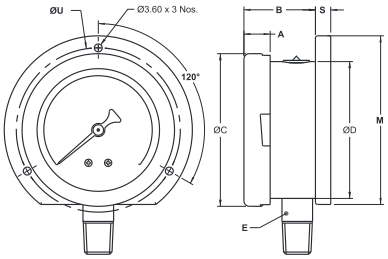
DN	A	B	ØC	ØD	E	Weight (grams)
50	5	32,5	57,5	51,5	SQ.14	110
63	5	31,5	68	62,5	SQ.14	189

Type B0 (Bayonet ring)



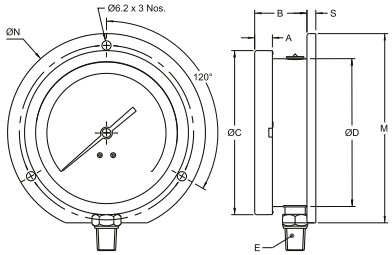
DN	A	B	ØC	ØD	E	Weight (grams)
80	9,5	33,5	89,5	80	A/F14	450
100	12	38	111	100	A/F14	500

Type B1 (Bayonet ring)



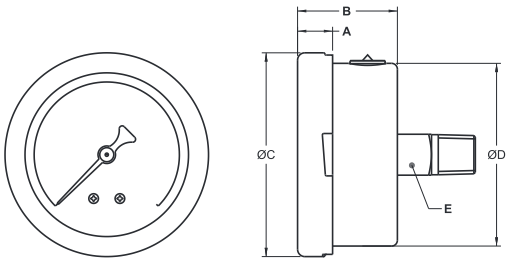
DN	A	B	ØC	ØD	E	ØN	ØU	M	S	Weight (grams)
63	12	33	69,7	62,5	SQ.14	86	75	77	7	254

Type B1 (Bayonet ring)



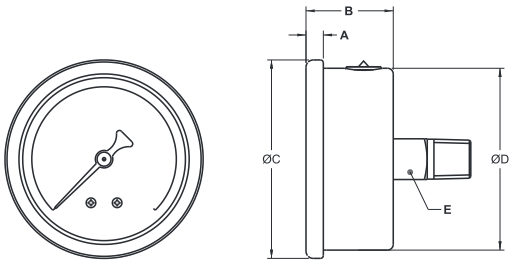
DN	A	B	ØC	ØD	E	ØN	ØU	M	S	Weight (grams)
100	12	38	111	100	A/F14	134	118	128	6	607

Type R0 (Bayonet ring)



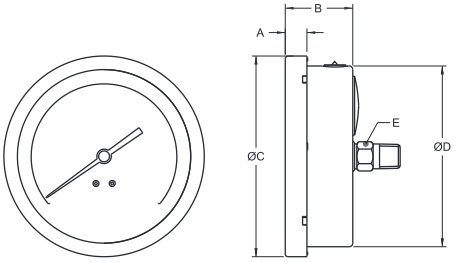
DN	A	B	ØC	ØD	E	Weight (grams)
50	9	34	58,5	52	SQ.14	120
63	12	33	69,7	62,5	SQ.14	209

Type R0 (Rolling ring)



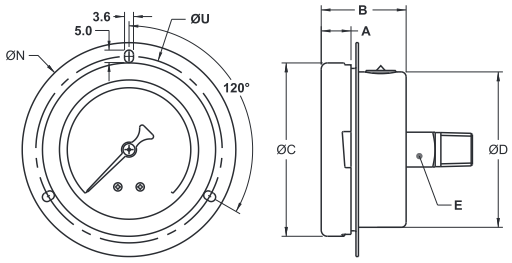
DN	A	B	ØC	ØD	E	Weight (grams)
50	5	32,5	57,5	51,5	SQ.14	110
63	5	31,5	68	62,5	SQ.14	189

Type R0 (Bayonet ring)



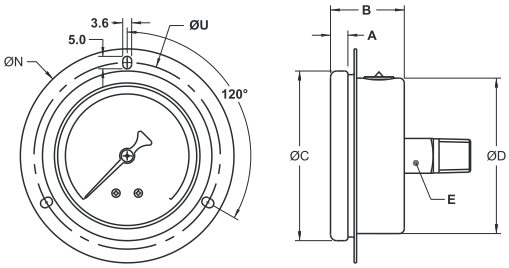
DN	A	B	ØC	ØD	E	Weight (grams)
80	9,5	33,5	89,5	80	A/F14	450
100	12	38	111	100	A/F14	500

Type R2 (Bayonet ring)



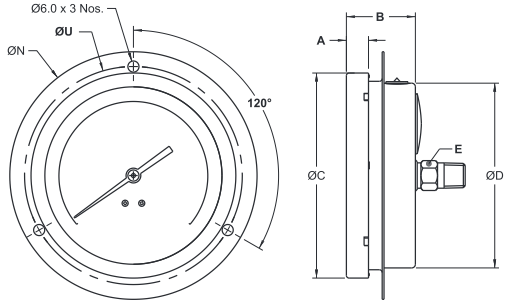
DN	A	B	ØC	ØD	E	ØN	ØU	Weight (grams)
63	12	33	69,5	62,5	SQ.14	86	75	240

Type R2 (Rolling ring)



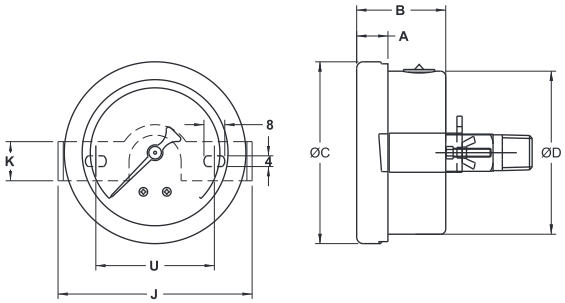
DN	A	B	ØC	ØD	E	ØN	ØU	Weight (grams)
63	5	31,5	68	62,5	SQ.14	86	75	189

Type R2 (Bayonet ring)



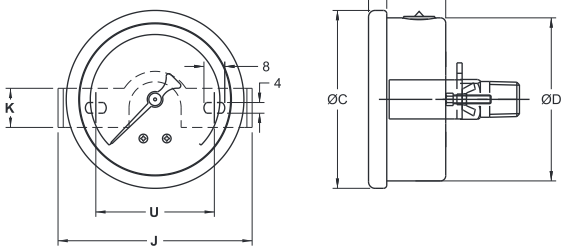
DN	A	B	ØC	ØD	E	ØN	ØU	Weight (grams)
100	12	38	111	100	A/F14	134	118	574

Type R3 (Bayonet ring)



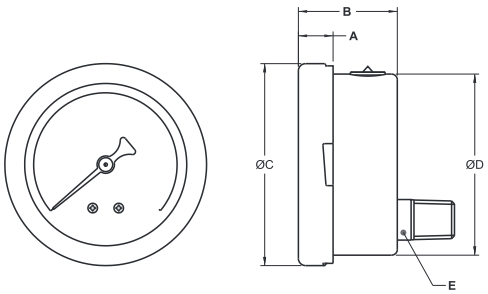
DN	A	B	ØC	ØD	E	U	J	K	Weight (grams)
50	9	34	58,5	51	SQ.14	70,5	91	38	163
63	12	33	69,7	62,5	SQ.14	70,5	91	38	254

Type R3 (Rolling ring)



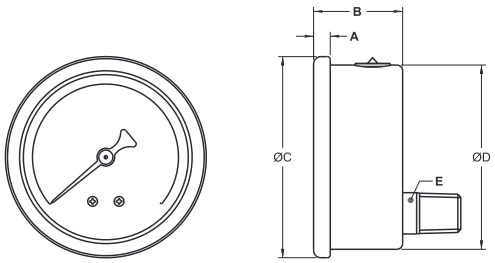
DN	A	B	ØC	ØD	E	U	J	K	Weight (grams)
50	9	34	58,5	51	SQ.14	70,5	91	38	163
63	12	33	69,7	62,5	SQ.14	70,5	91	38	254

Type L0 (Bayonet ring)



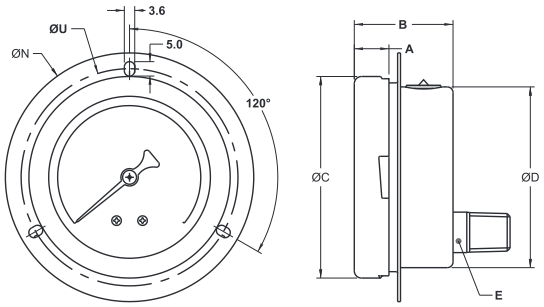
DN	A	B	ØC	ØD	E	Weight (grams)
63	12	33	69,7	62,5	SQ.14	209

Type L0 (Rolling ring)



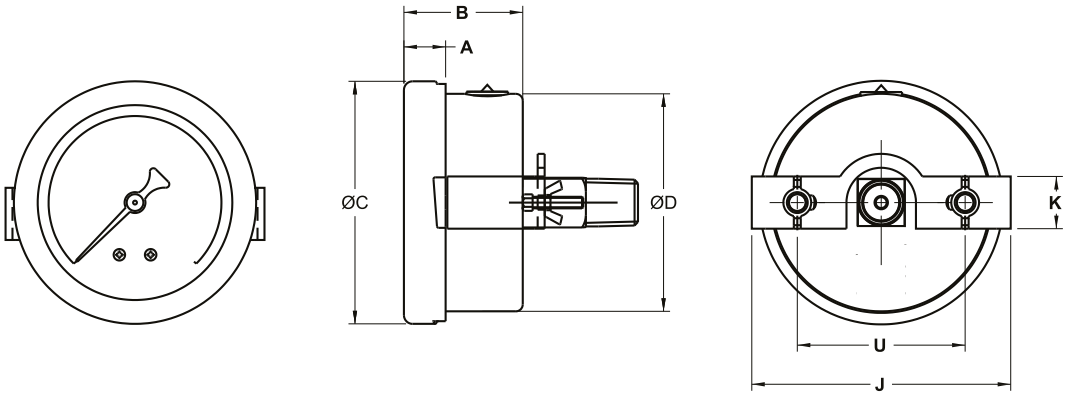
DN	A	B	ØC	ØD	E	Weight (grams)
63	5	31,5	68	62,5	SQ.14	189

Type L1 (Bayonet ring)



DN	A	B	ØC	ØD	E	ØN	ØU	Weight (grams)
63	12	33	69,7	62,5	SQ.14	86	75	240

Type L2 (Bayonet ring)



DN	A	B	ØC	ØD	E	U	J	K	Weight (grams)
50	9	34	58,5	51	SQ.14	45,5	74,5	15	163
63	12	33	69,7	62,5	SQ.14	45,5	74,5	15	254

Standard Ranges			
RANGE	bar	Kg/cm²	bar/psi
0 ... 0.6	B01	K01	N01
0 ... 1	B02	K02	N02
0 ... 1.6	B03	K03	N03
0 ... 2.5	B05	K05	N05
0 ... 4	B06	K06	N06
0 ... 6	B07	K07	N07
0 ... 7	B08	K08	N08
0 ... 10	B09	K09	N09
0 ... 16	B11	K11	N11
0 ... 25	B13	K13	N13
0 ... 40	B16	K16	N16
0 ... 60	B17	K17	N17
0 ... 70	B18	K18	N18
0 ... 100	B19	K19	N19
0 ... 160	B21	K21	N21
0 ... 250	B24	K24	N24
0 ... 400	B27	K27	N27
0 ... 600	B29	K29	N29
0 ... 700	B30	K30	N30
0 ... 1000	B31	K31	N31
-1 ... 0	B37	K37	N37
-1 ... 0.6	B38	K38	N38
-1 ... 1.5	B39	K39	N39
-1 ... 3	B42	K42	N42
-1 ... 5	B43	K43	N43
-1 ... 9	B45	K45	N45
-1...15	B47	K47	N47
-1...24	B49	K49	N49

Standard Ranges	
RANGE	psi
0 ... 10	S01
0 ... 15	S02
0 ... 25	S03
0 ... 35	S05
0 ... 60	S06
0 ... 90	S07
0 ... 100	S08
0 ... 150	S09
0 ... 235	S11
0 ... 365	S13
0 ... 600	S16
0 ... 870	S17
0 ... 1000	S18
0 ... 1500	S19
0 ... 2300	S21
0 ... 3600	S24
0 ... 6000	S27
0 ... 8700	S29
0 ... 10000	S30
0 ... 15000	S31
-30 ... 0[1]	S37
-30 ... 10[1]	S38
-30 ... 20[1]	S39
-30 ... 45[1]	S42
-30 ... 75[1]	S42
-30 ... 130[1]	S45
-30 ... 220[1]	S47
-30 ... 350[1]	S49

Standard Ranges	
RANGE	kPa
0 ... 60	E01
0 ... 100	E02
0 ... 160	E03
0 ... 250	E05
0 ... 600	E06
0 ... 600	E07
0 ... 700	E08
0 ... 1000	E09
0 ... 1600	E11
0 ... 2500	E13
0 ... 4000	E16
0 ... 6000	E17
0 ... 7000	E18
0 ... 10000	E19
0 ... 16000	E21
0 ... 25000	E24
0 ... 40000	E27
0 ... 60000	E29
0 ... 70000	E30
-	-
-100 ... 0	E37
-100 ... 60	E38
-100 ... 150	E39
-100 ... 300	E42
-100 ... 500	E43
-100 ... 900	E45
-100 ... 1500	E47
-100 ... 2400	E49

Standard Ranges	
RANGE	MPa
-	-
0 ... 0.1	M02
0 ... 0.16	M03
0 ... 0.25	M05
0 ... 0.4	M06
0 ... 0.6	M07
0 ... 0.7	M08
0 ... 1	M09
0 ... 1.6	M11
0 ... 2.5	M13
0 ... 4	M16
0 ... 6	M17
0 ... 7	M18
0 ... 10	M19
0 ... 16	M21
0 ... 25	M24
0 ... 40	M27
0 ... 60	M29
0 ... 70	M30
0 ... 100	M31
- 0.1 ... 0	M37
-0.1 ... 0.06	M38
-0.1 ... 0.15	M39
-0.1 ... 0.3	M42
-0.1 ... 0.5	M43
-0.1 ... 0.9	M45
-0.1 ... 1.5	M47
-0.1 ... 2.4	M49

Standard Ranges	
RANGE	mbar
-600 ... 0	B00
-	-
-	-
-	-
-	-
-	-
-	-
-	-
-	-
-	-
-	-
-	-
-	-
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General notes

- Other scales & measurement units are available.
- Equivalent scales available in kg/cm2, psi, kPa, MPa, bar/psi, kPa/bar, kPa/psi or any other special scales.
- Primary scales shall be in "BLACK" and secondary scales shall be "RED".
- Special scales, custom dial designs, OEM/private logo printing is available, details contact our marketing team.
- Any other range codes which are not available in the list shall be confirmed by factory.

Technical note

1) In compound ranges, negative pressures are marked in In Hg, hence for example for -1 to 1 bar the corresponding scale shall be -30"Hg to 15 psi.