

## FEATURES

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

## APPLICATION

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

**Bourdon Tube,  $\geq$  DN100**



### 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
Window	: Sheet glass / Shatterproof safety glass

### 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)
Ingress protection	: IP 54 / IP 65
Execution	: Dry / Dry but fillable, glycerin

### STANDARD SPECIFICATIONS : DAMPENING LIQUID FILLED, GLYCERIN

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

### TEMPERATURE EFFECT

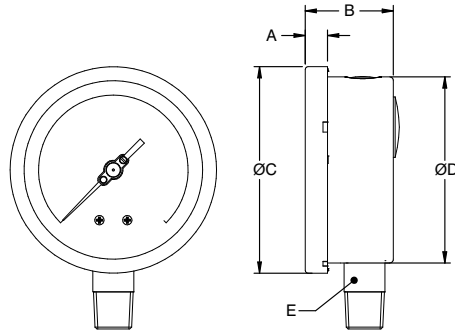
When temperature of the measuring system deviates from reference temperature (+20°C) max error  $\pm 0.4\%$  / 10K of true scale value.

## REFERENCE

EN 837-1, PED 97/23/EC

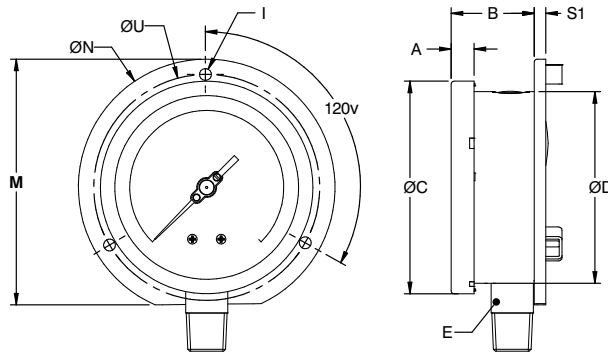
DIMENSIONAL DRAWING

Type B0



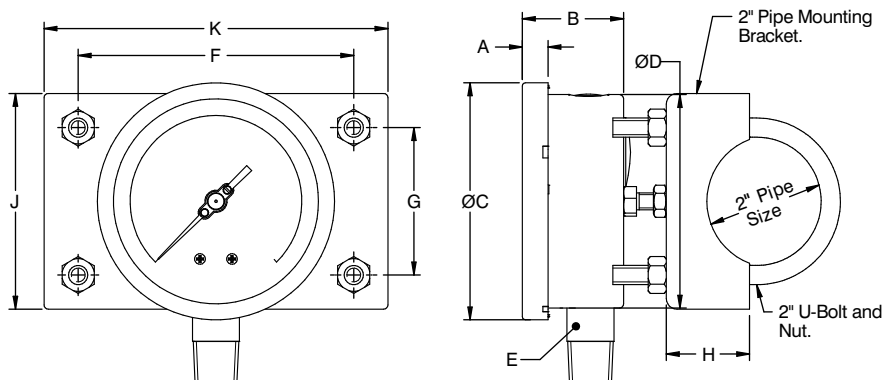
DN	A	B	ØC	ØD	E	Weight (grams)
100	12	48	111	100	SQ.22	506
125	15	48	129	118.5	SQ.22	694
150	15	48	161	149	SQ.22	900
250	18.5	50	263	250	SQ.22	2100

Type B1



DN	A	B	ØC	ØD	E	ØI	M	ØN	S1	ØU	Weight (grams)
100	12	52	111	100	SQ.22	6	128	134	6	118	613
125	15	50	129	118.5	SQ.22	6	143.5	150	4	137	796
150	15	52	161	149	SQ.22	6	172.4	186	6	168	1080
250	18.5	51.5	263	250	SQ.22	7	286.5	290	1.5	276	2448

Type B2

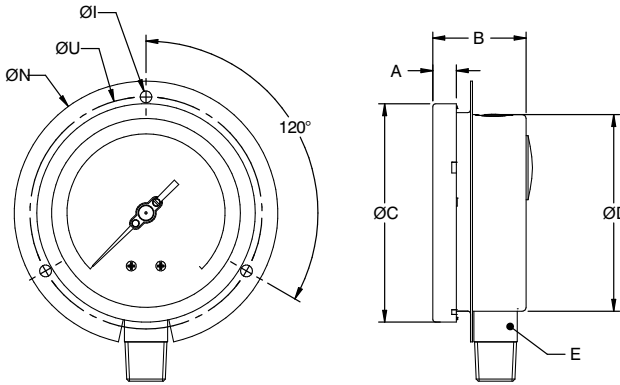


DN	A	B	ØC	ØD	E	F	G	H	J	K	Weight (grams)
100	12	48	111	100	SQ.22	129	69	39	101	161	1580
150	15	48	161	149	SQ.22	129	69	39	101	161	1974

All dimensions are in mm.

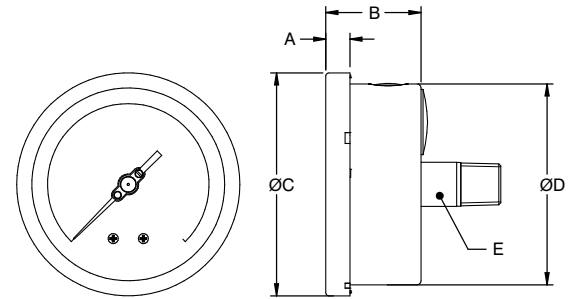
### DIMENSIONAL DRAWING

#### Type B3



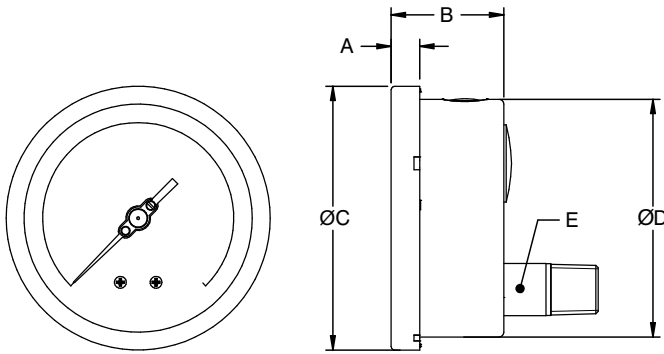
DN	A	B	ØC	ØD	E	ØI	ØN	ØU	Weight (grams)
100	12	48	111	100	SQ.22	6	134	118	580
150	15	48	161	149	SQ.22	6	186	168	2433

#### Type R0



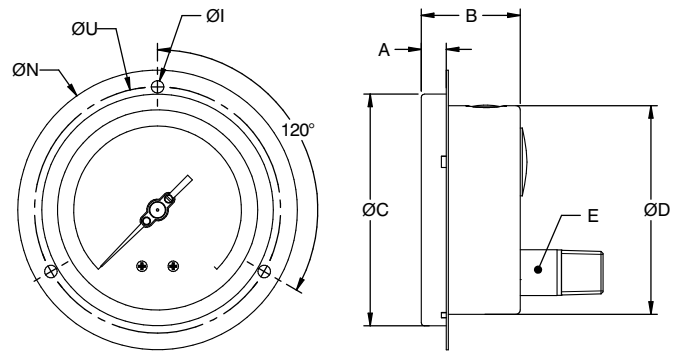
DN	A	B	ØC	ØD	E	Weight (grams)
100	12	48	111	100	SQ.22	506
150	15	48	161	149	SQ.22	2100

#### Type L0



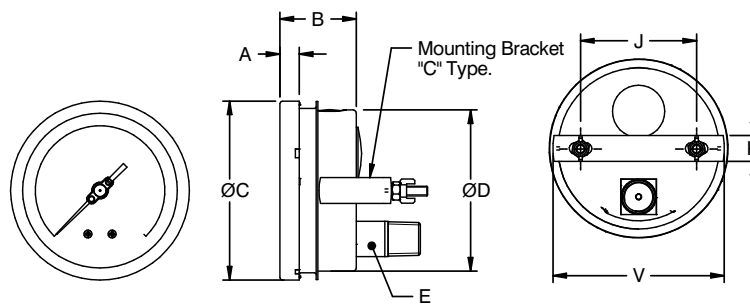
DN	A	B	ØC	ØD	E	Weight (grams)
100	12	48	111	100	SQ.22	506
125	15	48	129	118.5	SQ.22	694
150	15	48	161	149	SQ.22	900
250	18.5	50	263	250	SQ.22	2100

#### Type L1



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

#### Type L2



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

### ORDERING CODES

#### 1. DIAL SIZE

<b>04</b>	100 mm / 4"
<b>05</b>	125 mm / 4½"
<b>06</b>	150 mm / 6"
<b>08</b>	200 mm / 8"
<b>10</b>	250 mm / 10"

#### 2. RANGE

<b>XXX</b>	Refer "Range Table"
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#### 3. MOUNTING PATTERN

<b>B0</b>	Direct, Bottom connection
<b>B1</b>	Wall/Surface/Projection mounting, Bottom connection
<b>B2</b>	2" Pipe/Yoke mounting, Bottom connection
<b>B3</b>	Panel/Front flange mounting, Bottom connection (available in D100 / D150)
<b>R0</b>	Centre, Back connection <sup>3</sup>
<b>L0</b>	Lower, Back connection
<b>L1</b>	Panel/Front flange mounting, Lower Back connection
<b>L2</b>	Panel/bracket mounting, Lower Back connection

#### 4. PROCESS CONNECTION

<b>12B</b>	¼" BSP (M)
<b>12N</b>	¼" NPT (M)
<b>13B</b>	3/8" BSP (M)
<b>14B</b>	½" BSP (M)
<b>14M</b>	M20 X 1.5 mm (M)
<b>14N</b>	½" NPT (M)

Other thread size and standards available on request.

#### 5. INGRESS PROTECTION

<b>ER</b>	IP 65
<b>ES</b>	IP 66
<b>ET</b>	IP 67

#### 6. EXECUTION

<b>EA</b>	Dry <sup>6</sup>
<b>EB</b>	Dry but fillable, glycerine
<b>EC</b>	Dry but fillable, silicon oil <sup>2</sup>
<b>EG</b>	Dampening liquid filled, glycerine
<b>EH</b>	Dampening liquid filled, silicon oil <sup>2</sup>

#### 7. OTHER OPTIONS

<b>BA</b>	Case & Ring in AISI 316 SS (B0)
<b>BB</b>	Case & Ring in AISI 316 SS (B1)
<b>BC</b>	Case & Ring in AISI 316 SS (B2)
<b>BD</b>	Case & Ring in AISI 316 SS (B3)
<b>BG</b>	Case & Ring in AISI 316 SS (R0)
<b>BK</b>	Case & Ring in AISI 316 SS (L0)
<b>BL</b>	Case & Ring in AISI 316 SS (L1)
<b>BM</b>	Case & Ring in AISI 316 SS (L2)
<b>EM</b>	Dampening screw, Monel
<b>EN</b>	Dampening screw, AISI 316 SS
<b>EX</b>	Internal overload stop
<b>EY</b>	Internal vacuum stop
<b>EZ</b>	Pointer stop on dial
<b>G9</b>	Dial with Freon temperature scales
<b>GB</b>	Plexi glass
<b>GC</b>	Shatterproof safety glass
<b>GD</b>	Toughened glass
<b>GL</b>	AISI 316 SS movement
<b>GM</b>	Dampened movement
<b>GW</b>	Maximum Reading pointer <sup>4</sup>
<b>GX</b>	Knife edge pointer
<b>MN</b>	Monel wetted parts
<b>N9</b>	Dial with Ammonia temperature scale
<b>OP</b>	Overrange protection 1.5xFS
<b>OS</b>	Short overpressure up to 4 time of FS
<b>P8</b>	Epoxy coating (Case & Ring)
<b>R9</b>	Receiver gauge <sup>5</sup>
<b>RA</b>	Rubber parts, Viton
<b>RN</b>	Rubber parts, NBR
<b>RW</b>	Vent plug, ON-OFF type
<b>TA</b>	5 - point calibration certificate
<b>TC</b>	Material test certificate 3.1
<b>TE</b>	CE certificate
<b>TI</b>	IBR certification
<b>TL</b>	Helium leak testing
<b>TM</b>	Material test certificate 2.2
<b>TN</b>	Tested to NACE standards
<b>TO</b>	Certification for Oxygen service
<b>TP</b>	Performance test
<b>TT</b>	C.C. with NABL traceability
<b>XA</b>	Accuracy CL 0.5 / CL 0.6 of FS
<b>XF</b>	SS tag plate, AISI 304 SS
<b>XG</b>	SS tag plate, AISI 316 SS
<b>XK</b>	Electro polished (Case & Ring)
<b>XN</b>	Anti-parallax mirror band
<b>XR</b>	Custom designed dial
<b>XT</b>	Dial tag marking

**Ordering Example : P101-04-XXX-B0-14N-ER-EB-BA**

#### NOTES

- For other connections, please contact factory.
- Rubber parts shall be in Viton.
- Available in DN100 only.
- Available in dry version only with accuracy CL 1.0 or above.
- Please specify the second scale required.
- Available with Ingress Protection IP 54 (dust proof) only.
- C.C = Calibration Certificate