

## BOURDON TYPE PRESSURE GAUGE

### Special Features:

Stainless steel case & Brass measuring system  
 Socket & case welded  
 Accuracy upto  $\pm 1.0\%$

### Applications:

Food & beverage, pharmaceutical, cryogenics, chemical & petrochemical industries, conventional & nuclear power Plants, pumps, hydro-cleaning machines, presses, engine Compressors, turbines, diesel engines & refrigerating plants.



### Specifications:

Standard Version: 40mm, 50mm, 63mm, 100mm, 150mm, 250mm

Accuracy :  $\pm 1.6\%$  of F.S. for 100mm, 150mm and 250mm  
 $\pm 2.0\%$  of F.S. for 63mm  
 $\pm 2.5\%$  of F.S. for 50mm  
 Ambient temperature :  $- 25^{\circ}\text{C}$  to  $+ 65^{\circ}\text{C}$   
 Process temperature : Max  $180^{\circ}\text{C}$   
 Operating pressure : 75% of the Scale Value  
 Over pressure limit : 30% for Pressure Ranges upto  $600 \text{ kg / cm}^2$   
 15% for Pressure Ranges above  $600 \text{ kg / cm}^2$

Case : AISI 304 SS  
 Ring : AISI 304 SS, Bayonet Type  
 Bourdon : Copper Alloy upto 1000 psi (AISI 316SS upto 15000 psi)  
 Socket : Copper Alloy  
 Movement : Copper Alloy  
 Joints : Silver Alloy Brazing

Protection : IP 65  
 Dial : Aluminium, black graduation on white background  
 Pointer : Aluminium, black coloured Micrometer zero adjustable  
 Window : Sheet Glass  
 Blow off Disc : Neoprene  
 Gasket : Neoprene

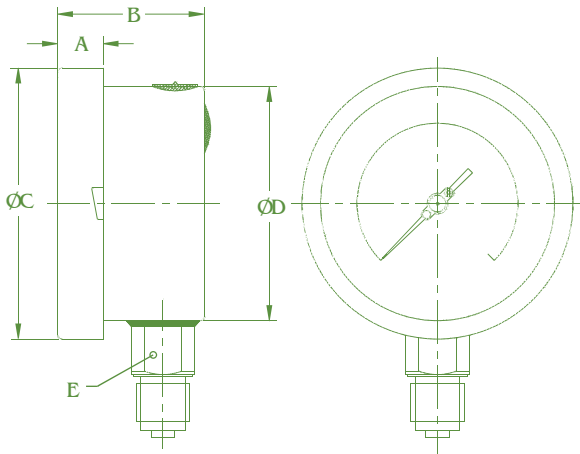
### Glycerine Filled Version (Option LG)

Accuracy :  $\pm 1.6\%$  of F.S. for 100mm, 150mm and 250mm  
 $\pm 2.0\%$  of F.S. for 63mm  
 $\pm 2.5\%$  of F.S. for 50mm  
 Ambient Temperature : Maximum  $65^{\circ}\text{C}$   
 Process Temperature :  $+15^{\circ}\text{C} / 65^{\circ}\text{C}$   
 Window : Plexi Glass  
 Dampening Liquids : Glycerine 98% (others available as option)  
 Other Features : Refer Specification of Standard Version

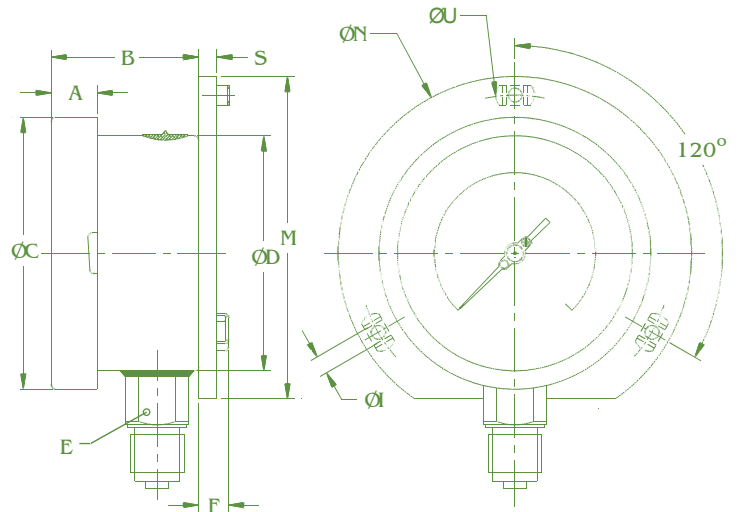
## BOURDON TYPE PRESSURE GAUGE

### DIMENSIONS - STANDARD VERSION

#### ⚙️ Type 1



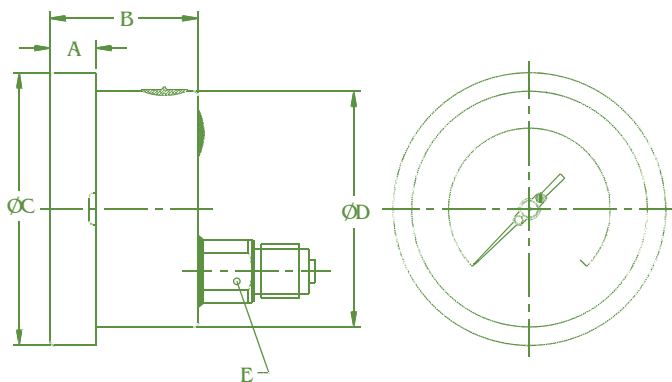
#### ⚙️ Type 2



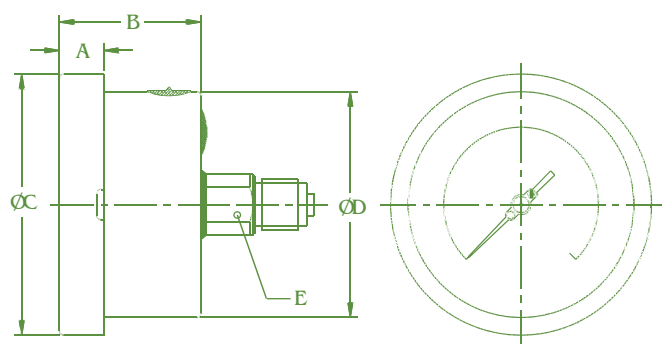
| NS  | A    | B    | ØC   | ØD   | E      |
|-----|------|------|------|------|--------|
| 50  | 10   | 31   | 59   | 51   | A/F 14 |
| 63  | 9    | 31   | 69.5 | 62.5 | A/F 14 |
| 100 | 12.5 | 48   | 110  | 100  | 22     |
| 150 | 15   | 49   | 161  | 149  | 22     |
| 250 | 15   | 50.5 | 263  | 249  | 22     |

| NS  | A    | B    | ØC   | ØD   | E      | M     | S   | F    | ØI | ØN  | ØU  |
|-----|------|------|------|------|--------|-------|-----|------|----|-----|-----|
| 63  | 9    | 31   | 69.5 | 62.5 | A/F 14 | 80    | 5   | 12.5 | 5  | 88  | 76  |
| 100 | 12.5 | 48   | 110  | 100  | 22     | 128   | 6   | 14.5 | 6  | 134 | 118 |
| 150 | 15   | 49   | 161  | 149  | 22     | 177   | 5.5 | 15   | 6  | 186 | 168 |
| 250 | 15   | 50.5 | 263  | 249  | 22     | 268.5 | 1.5 | 15   | 7  | 290 | 276 |

#### ⚙️ Type 3



#### ⚙️ Type 4



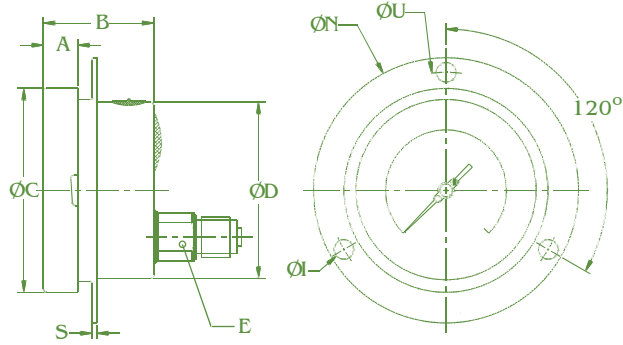
| NS  | A    | B    | ØC   | ØD   | E      |
|-----|------|------|------|------|--------|
| 63  | 9    | 31   | 69.5 | 62.5 | A/F 14 |
| 100 | 12.5 | 48   | 110  | 100  | 22     |
| 150 | 15   | 49   | 161  | 149  | 22     |
| 250 | 15   | 50.5 | 263  | 249  | 22     |

| NS  | A    | B  | ØC   | ØD   | E      |
|-----|------|----|------|------|--------|
| 50  | 10   | 31 | 59   | 51   | A/F 14 |
| 63  | 9    | 31 | 69.5 | 62.5 | A/F 14 |
| 100 | 12.5 | 48 | 110  | 100  | 22     |

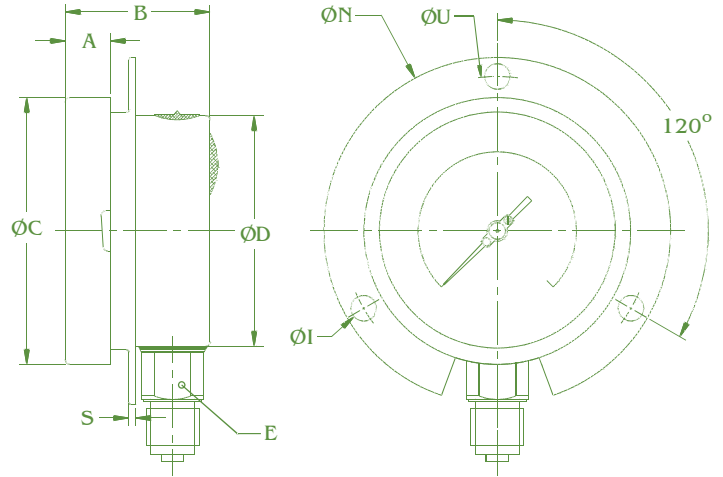
Notes : • Drawings are not to scale. • All Dimensions are in mm.

## BOURDON TYPE PRESSURE GAUGE

### ⚙️ Type 5



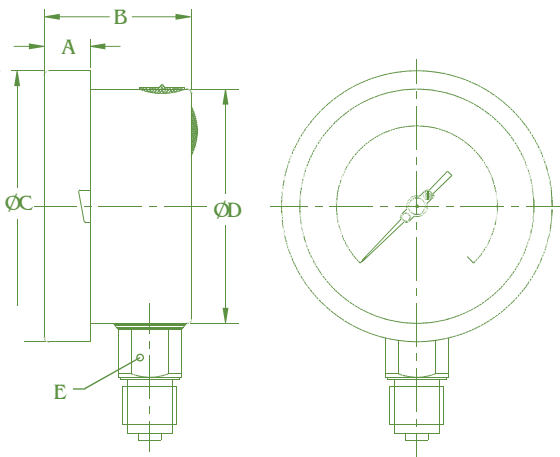
### ⚙️ Type 6



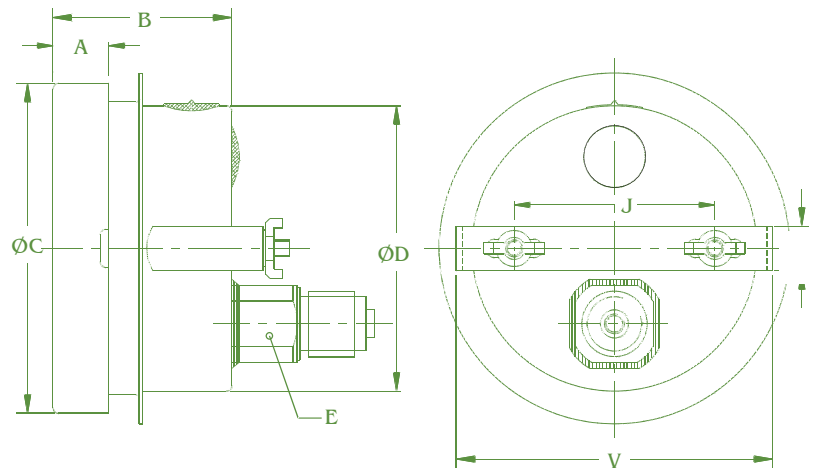
| NS  | A    | B    | ØC  | ØD  | E  | S   | ØI | ØN  | ØU  |
|-----|------|------|-----|-----|----|-----|----|-----|-----|
| 100 | 12.5 | 48   | 110 | 100 | 22 | 1   | 6  | 134 | 118 |
| 150 | 15   | 49   | 161 | 149 | 22 | 5   | 6  | 186 | 168 |
| 250 | 15   | 50.5 | 263 | 249 | 22 | 1.5 | 7  | 290 | 276 |

| NS  | A    | B    | ØC  | ØD  | E  | S   | ØI | ØN  | ØU  |
|-----|------|------|-----|-----|----|-----|----|-----|-----|
| 100 | 12.5 | 48   | 110 | 100 | 22 | 1   | 6  | 134 | 118 |
| 150 | 15   | 49   | 161 | 149 | 22 | 5   | 6  | 186 | 168 |
| 250 | 15   | 50.5 | 263 | 249 | 22 | 1.5 | 7  | 290 | 276 |

### ⚙️ Type 7



### ⚙️ Type 8



| NS  | A    | B  | ØC  | ØD  | E  |
|-----|------|----|-----|-----|----|
| 100 | 12.5 | 38 | 110 | 100 | 22 |

| NS  | A    | B    | ØC  | ØD  | E  | J     | K  | V   |
|-----|------|------|-----|-----|----|-------|----|-----|
| 100 | 12.5 | 48   | 110 | 100 | 22 | 66.5  | 16 | 106 |
| 150 | 15   | 49   | 161 | 149 | 22 | 103.5 | 16 | 158 |
| 250 | 15   | 50.5 | 263 | 249 | 22 | 215   | 16 | 260 |

Notes : • Drawings are not to scale. • All Dimensions are in mm.

## BOURDON TYPE PRESSURE GAUGE

### RANGE TABLE

Note : Omicron offers National / International Scales like kPa, MPa, bar, PSI, kg/cm<sup>2</sup> & Dual Scale like kPa with PSI, kPa with bar, bar with PSI or Equivalent scales as per the requirement can be provided on request. Following are the example tables for kg/cm<sup>2</sup> & PSI scales:

#### Pressure:

##### SINGLE SCALE (kg/cm<sup>2</sup> or bar)

| RANGE | RANGE | RANGE | RANGE | RANGE  |
|-------|-------|-------|-------|--------|
| 0/0.6 | 0/4   | 0/25  | 0/160 | 0/1000 |
| 0/1   | 0/6   | 0/40  | 0/250 | 0/1400 |
| 0/1.6 | 0/10  | 0/60  | 0/400 | 0/1600 |
| 0/2.5 | 0/16  | 0/100 | 0/600 |        |

##### DUAL SCALE (PSI with kg/cm<sup>2</sup>) or PSI with bar

| RANGE (PSI) | RANGE (kg/cm <sup>2</sup> ) | RANGE (PSI) | RANGE (kg/cm <sup>2</sup> ) | RANGE (PSI) | RANGE (kg/cm <sup>2</sup> ) |
|-------------|-----------------------------|-------------|-----------------------------|-------------|-----------------------------|
| 0/15        | 0/1                         | 0/400       | 0/28                        | 0/4000      | 0/280                       |
| 0/30        | 0/2                         | 0/500       | 0/35                        | 0/5000      | 0/350                       |
| 0/60        | 0/4                         | 0/600       | 0/40                        | 0/6000      | 0/400                       |
| 0/100       | 0/7                         | 0/1000      | 0/70                        | 0/10000     | 0/700                       |
| 0/150       | 0/10                        | 0/1500      | 0/100                       | 0/15000     | 0/1000                      |
| 0/200       | 0/14                        | 0/2000      | 0/140                       | 0/20000     | 0/1400                      |
| 0/300       | 0/20                        | 0/3000      | 0/200                       | 0/23000     | 0/1600                      |

\* Note: For ranges above 1600kg/cm<sup>2</sup>, please consult factory.

#### Vacuum & Compound:

##### DUAL SCALE (inHg with PSI & mmHg with kg/cm<sup>2</sup>)

| RANGE (inHg with PSI) | RANGE (mmHg with kg/cm <sup>2</sup> ) | RANGE (inHg with PSI) | RANGE (mmHg with kg/cm <sup>2</sup> ) | RANGE (inHg with PSI) | RANGE (mmHg with kg/cm <sup>2</sup> ) |
|-----------------------|---------------------------------------|-----------------------|---------------------------------------|-----------------------|---------------------------------------|
| - 30/0                | - 760/0                               | - 30/60               | - 760/4                               | - 30/200              | - 760/14                              |
| - 30/15               | - 760/1                               | - 30/100              | - 760/7                               | - 30/300              | - 760/21                              |
| - 30/30               | - 760/2                               | - 30/150              | - 760/10                              | - 30/350              | - 760/24                              |

##### SINGLE SCALE (kg/cm<sup>2</sup>)

| RANGE   | RANGE   | RANGE | RANGE  |
|---------|---------|-------|--------|
| - 1/0   | - 1/1.5 | - 1/5 | - 1/15 |
| - 1/0.6 | - 1/3   | - 1/9 | - 1/24 |

#### Freon (With Temperature Scale)

##### DUAL SCALE (Inch Hg to PSI)

| RANGE    | RANGE | RANGE (kg/cm <sup>2</sup> ) | RANGE (PSI) |
|----------|-------|-----------------------------|-------------|
| - 30/150 | 0-300 | -1 to 12.5                  | -30 - 150   |
| - 30/300 | 0-500 | -1 to 16                    | -30 - 300   |
|          |       | -1 to 25                    | 0 - 300     |

#### Ammonia (With Temperature Scale)

#### Accessories: †

|    |               |    |              |    |                |
|----|---------------|----|--------------|----|----------------|
| CT | COOLING TOWER | GS | GAUGE SAVER  | SN | SNUBBER        |
| GC | GAUGE COCK    | *  | NEEDLE VALVE | GS | SYPHON         |
|    |               |    |              | ** | DIAPHRAGM SEAL |

† Refer Datasheet for complete specifications

\* Refer catalogue for Valves & Manifolds

\*\* Refer catalogue for Diaphragm Seals

## BOURDON TYPE PRESSURE GAUGE

### HOW TO ORDER

#### Basic Model:

PGSB

| CODE             | A  | B  | C   | D   | E   | C |
|------------------|----|----|-----|-----|-----|---|
| Nominal Size(mm) | 50 | 63 | 100 | 150 | 250 |   |

#### Type Of Mounting:

2

1. Direct Bottom Entry
2. Wall / Surface / Projection Mounting With Bottom Entry
3. Direct Lower Back Entry
4. Direct Centre Back Entry
5. Flush Panel Back Entry With Front Flange
6. Bottom Entry With Front Flange
7. Direct Bottom Entry With Light Weight Case (Only For 100mm Ns)
8. Back Entry With Mounting Bracket

(Other types of mounting can be provided on request.)

#### Gauge Connection:

10N

|     |              |      |                       |      |                       |     |                |
|-----|--------------|------|-----------------------|------|-----------------------|-----|----------------|
| 03B | 1/8" BSP (M) | 06BT | 1/4" BSPT (M)         | 15N  | 1/2" NPT (M) STANDARD | M16 | M 16 X 1.5 (M) |
| 03N | 1/8" NPT (M) | 10B  | 3/8" BSP (M) STANDARD | 15B  | 1/2" BSP (M) STANDARD | M20 | M 20 X 1.5 (M) |
| 06B | 1/4" BSP (M) | 10BT | 3/8" BSPT (M)         | 15BT | 1/2" BSPT (M)         |     |                |
| 06N | 1/4" NPT (M) | 10N  | 3/8" NPT (M)          | M12  | M 12 X 1 (M)          |     |                |

Note : Connections like PT/PF/Flaired /UNF/G/R etc.can be provided on request.  
Non standard connections can be provided through adaptors.

#### Range:

0 - 10<sub>2</sub>  
kg/cm<sup>2</sup>

Refer tables

#### Options:

OtA

|    |   |    |  |
|----|---|----|--|
| OA | Optional Accuracy ± 1.0% Of F.S.<br>(Except With Option Dampening Liquid Maximum Reading Pointer) |    |  |
| SM | AISI 304 SS Movement  | GD | Glow In The Dark Design Dial               |
| SC | AISI 316 SS Case & Ring   | DD | Custom Designed Dial                       |
| ST | SS Tag Plate  | LM | Dampening Liquid Mineral Liquid Filled     |
| SD | Dampening Screw   | LF | Dampening Liquid Flourolube Filled         |
| EP | Enclosure Protection IP 66  | LG | Dampening Liquid Glycerine Filled          |
| GP | Plexi Glass   | LS | Dampening Liquid Silicon Oil Filled*       |
| GS | Shatterproof / Safety Glass   | DT | Dial Tag Marking                           |
| GT | Toughened Glass   | FP | Five Point Factory Calibration Certificate |
| RF | Freon Range (With Temperature Scale)  | OR | Over Range Protection 150% Of F.S.         |
| RA | Ammonia Range (With Temperature Scale)  |    |  |
| RO | Oxygen Service (Without Option Dampening Liquid)  |    |  |
| SI | Knife Edge Pointer  |    |  |
| SJ | Maximum Reading Pointer   |    |  |

Ordering Example : PGSB-C1-10B-0/10kgcm<sup>2</sup> - OA

Note : Due to continuous improvement, the specification may vary from time to time.

For non standard products/optional items, please contact factory for delivery and minimum quantity of order.