

NESS

S.S. CASE BRASS INTERNAL PRESSURE GAUGE

BOURDON TUBE TYPE

Model - PT

The Stainless Steel Brass Internal Gauges can be used in every field of Industries for the measurement of Non-aggressive and non-crystallizing fluids. The filled version is available to reduce the stresses caused by the vibrations of the Installations, pulsating pressures or water hammers.

Special Features :

- Stainless steel case
- Two piece construction design
- Protection IP 65
- Dry or Liquid Filled
- Standard followed in general EN 837-1/ IS 3624



Applications :

- Oil
- Water Treatment Plant
- Pneumatics
- Hydraulics
- Pumps & Compressors
- Diesel Engines
- Gaseous / Liquid media that will not obstruct the pressure system

Specifications

STANDARD VERSION : 63mm & 100mm

| | |
|---------------------|---|
| Accuracy | : ± 1.6% of F.S. |
| Ambient temperature | : -25°C to +65°C |
| Operating pressure | : 75% of the Scale Value |
| Over pressure limit | : 125% of Max. Scale Value for Pressure Ranges up to 100 kg/cm ² |
| | : 115% of Max. Scale Value for Pressure Ranges from 100 to 400 kg/cm ² |

| | |
|----------|------------------------------|
| Case | : AISI 304 SS |
| Ring | : AISI 304 SS (Rolling Type) |
| Bourdon | : Copper Alloy |
| Socket | : Copper Alloy |
| Movement | : Copper Alloy |

| | |
|------------|---|
| Protection | : IP 65 |
| Dial | : Aluminium, black graduation on white background |
| Pointer | : Black coloured, Fixed |
| Window | : Plexi Glass |

GLYCERINE FILLED VERSION (OPTION GF)

| | |
|---------------------|--|
| Accuracy | : ± 1.6% of F.S. |
| Ambient temperature | : Maximum 65°C |
| Process Temperature | : Maximum 65°C |
| Window | : Plexi Glass |
| Dampening Liquids | : Glycerine 98% (others available as option) |
| Other Features | : Refer Specification of Standard Version |

Temperature effect:

The variation of indication caused by effects of temperature is to be calculated by below formula; which is to be added in the specified accuracy while measurement :- Formula :

$$\pm 0.04 \times (t_2 - t_1) \% \text{ of F. S.}$$

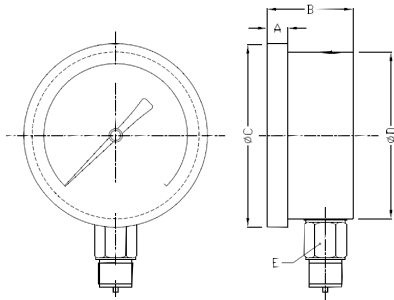
where t1 = reference temperature (+20°C) and t2 = ambient temperature in °C..

DIMENSIONS :- FOR STANDARD MODEL

TYPE 11 TYPE 14 TYPE 31 TYPE 32 TYPE 33

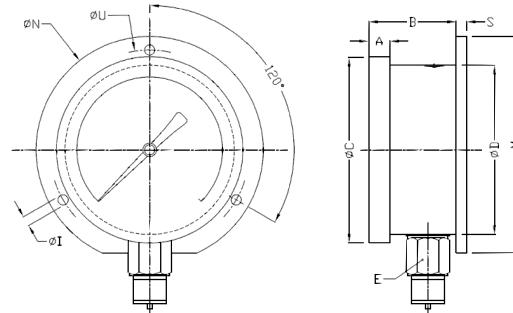
DRAWING OF MODEL (TYPE WISE)

TYPE 11 - DIRECT BOTTOM ENTRY



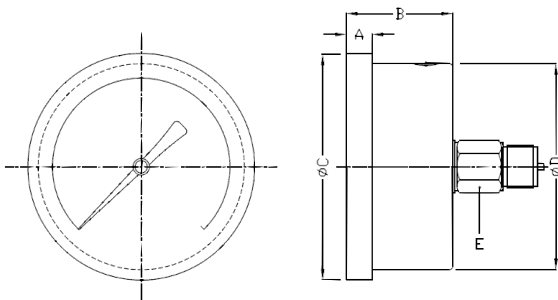
| Size | A | B | ∅C | ∅D | E |
|------|-----|------|-----|------|-------|
| 63 | 6.5 | 30 | 68 | 62.5 | A/F14 |
| 100 | 7 | 35.5 | 110 | 100 | A/F17 |

TYPE 14 - WALL / SURFACE WITH BOTTOM ENTRY



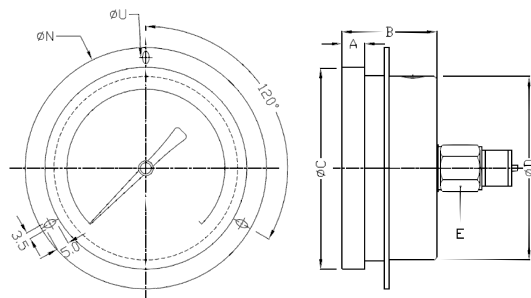
| Size | A | B | ∅C | ∅D | E | S | ∅N | ∅I | ∅U | M |
|------|-----|------|-----|------|-------|---|-----|----|-----|-----|
| 63 | 6.5 | 30 | 68 | 62.5 | A/F14 | 6 | 134 | 5 | 76 | 80 |
| 100 | 7 | 35.5 | 110 | 100 | A/F17 | 4 | 150 | 6 | 118 | 128 |

TYPE 31 - DIRECT CENTER BACK ENTRY



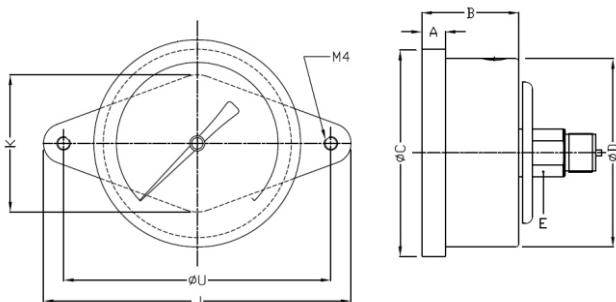
| Size | A | B | ∅C | ∅D | E |
|------|-----|------|------|------|-------|
| 63 | 4.5 | 29 | 57.5 | 51.5 | A/F14 |
| 100 | 7 | 35.5 | 110 | 100 | A/F17 |

TYPE 32 - DIRECT CENTER BACK ENTRY WITH FRONT FLANGE



| Size | A | B | ∅C | ∅D | E | ∅N | ∅U |
|------|-----|----|----|------|-------|------|----|
| 63 | 6.5 | 30 | 68 | 62.5 | A/F14 | 85.5 | 76 |

TYPE 33 - DIRECT CENTER BACK ENTRY WITH MOUNTING BRACKET



| Size | A | B | ∅C | ∅D | E | J | K | ∅U |
|------|-----|----|----|------|-------|----|----|------|
| 63 | 6.5 | 30 | 68 | 62.5 | A/F14 | 91 | 38 | 70.5 |

SELECTION OF MODEL

(1) MODEL CODE

(2) DIAL SIZE

| Dial Size | Code |
|-----------|------|
| 63 | 2 |
| 100 | 4 |



(3) MOUNTING TYPE

| Mounting Type | Code |
|--|------|
| DIRECT BOTTOM ENTRY | 11 |
| WALL / SURFACE / PROJECTION MOUNTING WITH BOTTOM ENTRY | 14 |
| DIRECT CENTER BACK ENTRY | 31 |
| DIRECT CENTER BACK ENTRY WITH FRONT FLANGE | 32 |
| DIRECT CENTER BACK ENTRY WITH MOUNTING BRACKET | 33 |

(4) GAUGE CONNECTION SIZE

| | | | |
|--------------------|-----|---------------|-----|
| 1/4" BSP (M) (STD) | 2BM | 3/8" BSP (M) | 3BM |
| 1/4" BSPT (M) | 2TM | 3/8" BSPT (M) | 3TM |
| 1/4" NPT (M) | 2NM | 3/8" NPT (M) | 3NM |
| 1/2" BSP (M) (STD) | 4BM | 1/2" NPT (M) | 4NM |

Note :- OTHER OPTIONS WILL BE PROVIDED ON REQUEST. CONSULT FACTORY FOR MORE DETAILS

(5) RANGE

REFER TO THE FOLLOWING TABLE

| PSI | Kg/cm ² |
|---------------|----------------------------|
| -30inHg - 0 | - 760 mmHg - 0 |
| 0 - 15 psi | 0 - 1 kg/cm ² |
| 0 - 100 psi | 0 - 4 kg/cm ² |
| 0 - 150 psi | 0 - 7 kg/cm ² |
| 0 - 300 psi | 0 - 10 kg/cm ² |
| 0 - 600 psi | 0 - 16 kg/cm ² |
| 0 - 1000 psi | 0 - 21 kg/cm ² |
| 0 - 1500 psi | 0 - 28 kg/cm ² |
| 0 - 2200 psi | 0 - 35 kg/cm ² |
| 0 - 3000 psi | 0 - 70 kg/cm ² |
| 0 - 4000 psi | 0 - 100 kg/cm ² |
| 0 - 5000 psi | 0 - 160 kg/cm ² |
| 0 - 6000 psi | 0 - 210 kg/cm ² |
| -30inHg - 30 | 0 - 280 kg/cm ² |
| -30inHg - 60 | 0 - 350 kg/cm ² |
| -30inHg - 100 | 0 - 400 kg/cm ² |
| -30inHg - 200 | -1 - 10 kg/cm ² |
| -30inHg - 300 | -1 - 21 kg/cm ² |

(Other Pressure UNIT like Bar, kPa, MPa, psi, kg/cm² or Dual Scale like kg/cm² with psi, kPa with bar, bar with psi, etc will be provided on request)

(6) OPTIONS

| | |
|---|--|
| DC CUSTOM DESIGNED DIAL | DB INTEGRAL DAMPENING SCREW (BRASS) |
| TS SS TAG PLATE | CC FIVE POINT CALIBRATION CERTIFICATE |
| GF DAMPENING LIQUID GLYCERINE FILLED | HT HELIUM LEAK TEST |
| OS OXYGEN SERVICE | AA CASE WITH BAYONET TYPE BEZEL* |
| FG FILLABLE LIQUID GLYCERINE | SG SAFETY GLASS (For Bayonet Type) |

| Example | 1 | 2 | 3 | 4 | 5 | 6 |
|--------------------|----|---|----|-----|---------------------------|-----------|
| SELECTION OF MODEL | PT | 2 | 11 | 2BM | 0 - 10 kg/cm ² | Option XX |
| SELECTION OF MODEL | PT | 4 | 11 | 4BM | 0 - 10 kg/cm ² | Option XX |

PT
2
4
11
11
2BM
4BM
0 - 10 kg/cm²
0 - 10 kg/cm²
XX
XX

Below options are provided on request of customer

| | |
|----|-------------------------------------|
| CE | CE MARKING (AS PER PED 97/23/EC) SS |
| NC | CONFORMITY AS PER NACE MR 0175 |
| CC | FIVE POINT CALIBRATION CERTIFICATE |
| HT | HELIUM LEAK TEST |
| IA | IBR APPROVAL |
| MC | MATERIAL TEST CERTIFICATE |
| WV | ON-OFF TYPE VENT PLUG |
| OS | OXYGEN SERVICE |
| DC | CUSTOM DESIGNED DIAL |

Other Products

- Pressure Switches - BETA, Netherland
- Temperature Switches - BETA, Netherland
- Flow Meter
- Level Meter
- RTD & Thermocouple
- TP Meter
- Gearless Switches
- Capillary Type Temp.Gauge
- Differential Pressure Gauge

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