



GOST



IBR



CE



UL Mark

Special Features

- External zero adjustment (optional)
- Stainless steel case & measuring system
- Socket directly welded to case
- Dry and liquid filled version
- Standard followed EN 837-1 (for NS 100, 150 & 250 mm)
- CE marking (as per PED 97/23/EC) (for NS 100 mm & 150 mm)

Application

- Food & beverage
- Pharmaceutical
- Cryogenics
- Pumps
- Diesel engines & Refrigerating plants
- Chemical & Petrochemical industries
- Conventional & nuclear power plants
- Environments & gaseous or liquid media that will not obstruct the pressure system.
- Hydro-cleaning machines
- Presses
- Engine compressors
- Turbines
- Suitable for corrosive

Specifications

Standard Version : 100 mm, 125 mm, 150 mm, 200 mm & 250 mm

| | | |
|--------------------------|---|------------------------------------------------|
| Accuracy | : | ±1.0% of F. S. |
| Ambient temperature | : | - 25°C to + 65°C |
| Process temperature | : | Max 300°C |
| Operating pressure range | : | 75% of Scale Value |
| Over pressure limit | : | ≤ 100 bar : 125% of Max. Scale Value |
| | : | > 100 to ≤ 600 bar : 115% of Max. Scale Value |
| | : | > 600 to ≤ 1600 bar : 110% of Max. Scale Value |

| | | |
|--------------|---|----------------------------------------|
| Case & Bezel | : | AISI 304 SS (Bayonet Type) |
| Bourdon | : | AISI 316L SS |
| Socket | : | AISI 316L SS (Directly Welded to Case) |
| Movement | : | AISI 304 SS |
| Joints | : | Tig Argon Arc Welding |

| | | |
|-----------------------|---|------------------------------------------------------|
| 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 & Filling Plug | : | Neoprene |

Dry But Fillable Version (Option FG)

| | | |
|---------------------------|---|-----------------------------------------|
| Fillable Dampening Liquid | : | Glycerine 99.7% (Option - FG) |
| Ambient Temperature | : | Maximum 65°C |
| Process Temperature | : | Maximum 65°C |
| Window | : | Plexi Glass |
| Other Features | : | Refer Specification of Standard Version |

Glycerine Filled Version (Option PY)

| | | |
|---------------------|---|----------------------------------------------|
| Accuracy | : | ±1.0% of F.S. |
| Ambient Temperature | : | Maximum 65°C |
| Process Temperature | : | Maximum 65°C |
| Window | : | Plexi Glass |
| Dampening Liquids | : | Glycerine 99.7% (others available as option) |
| Other Features | : | Refer Specification of Standard Version |

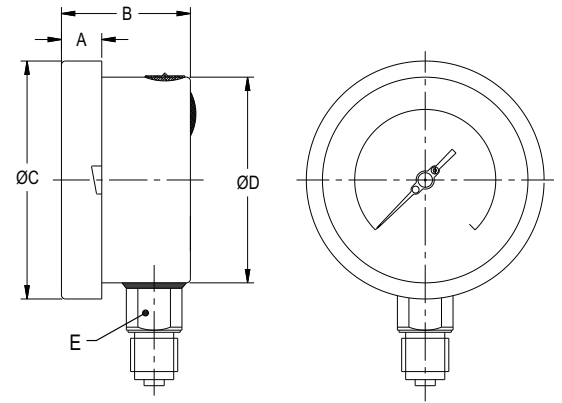
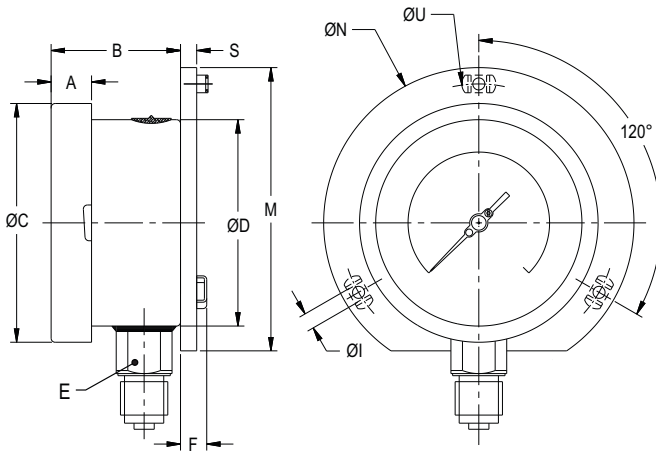
Temperature effect:

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 : ± 0.04 x (t2 - t1) % of F. S. where t1 = reference temperature (+20°C) and t2 = ambient temperature in °C.

Dimensions - standard version

TYPE 1

TYPE 2

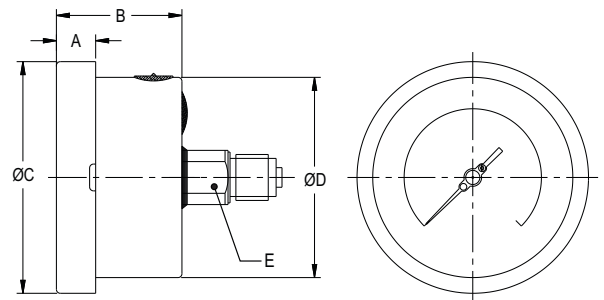
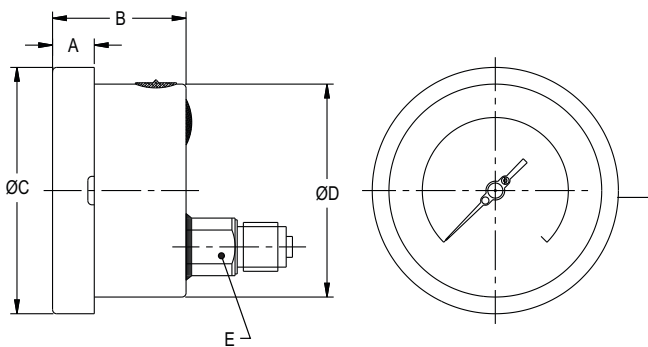


| NS | A | B | ØC | ØD | E | M | S | F | ØI | ØN | ØU | Weight in gram (With Box) | Weight in gram (With Glycerin & Box) |
|-----|------|------|-------|-------|----|-------|-----|------|----|-----|-----|------------------------------|-----------------------------------------|
| 100 | 12.5 | 45 | 111 | 100 | 22 | 128 | 6 | 14.5 | 6 | 134 | 118 | 720.0 | 1025.0 |
| 125 | 15 | 46 | 129 | 119 | 22 | 143 | 4 | 14.5 | 6 | 150 | 137 | 845.0 | 1165.0 |
| 150 | 15 | 46.5 | 161 | 149 | 22 | 174.5 | 6 | 14.5 | 6 | 186 | 168 | 1160.0 | 1895.0 |
| 200 | 18 | 49 | 216.5 | 201.5 | 22 | 229 | 1.5 | 14.5 | 7 | 245 | 230 | 2020.0 | 2780.0 |
| 250 | 18 | 52 | 263 | 250 | 22 | 286.5 | 1.5 | 14.5 | 7 | 290 | 276 | 2400.0 | 3220.0 |

| NS | A | B | ØC | ØD | E | Weight in gram (With Box) | Weight in gram (With Glycerin & Box) |
|-----|------|----|-------|-------|----|------------------------------|-----------------------------------------|
| 100 | 12.5 | 47 | 111 | 100 | 22 | 640.0 | 935.0 |
| 125 | 15 | 48 | 129 | 119 | 22 | 750.0 | 1070.0 |
| 150 | 15 | 49 | 161 | 149 | 22 | 1020.0 | 1755.0 |
| 200 | 18 | 49 | 210.5 | 201.5 | 22 | 1720.0 | 2480.0 |
| 250 | 18 | 52 | 263 | 250 | 22 | 2000.0 | 2820.0 |

TYPE 3

TYPE 4

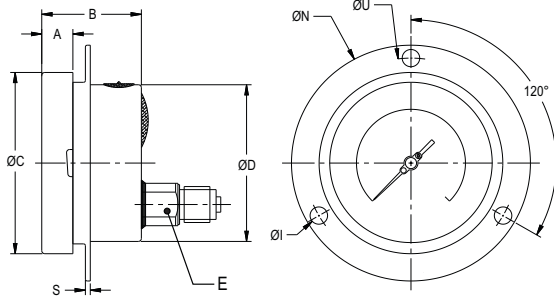


| NS | A | B | ØC | ØD | E | Weight in gram (With Box) | Weight in gram (With Glycerin & Box) |
|-----|------|----|-------|-------|----|------------------------------|-----------------------------------------|
| 100 | 12.5 | 47 | 111 | 100 | 22 | 640.0 | 935.0 |
| 125 | 15 | 48 | 129 | 119 | 22 | 750.0 | 1070.0 |
| 150 | 15 | 49 | 161 | 149 | 22 | 1000.0 | 1735.0 |
| 200 | 18 | 49 | 216.5 | 201.5 | 22 | 1500.0 | 2260.0 |
| 250 | 18 | 52 | 263 | 250 | 22 | 1800.0 | 2620.0 |

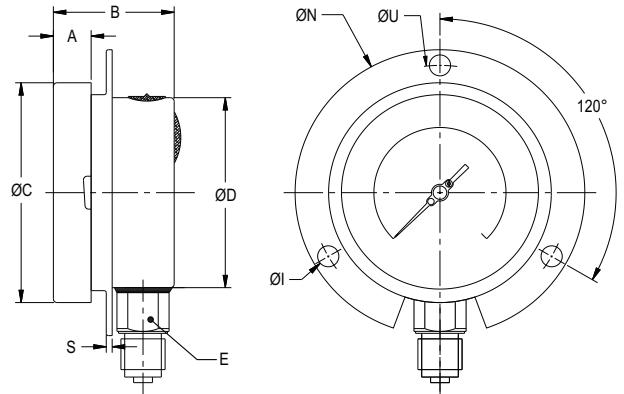
| NS | A | B | ØC | ØD | E | Weight in gram (With Box) | Weight in gram (With Glycerin & Box) |
|-----|------|----|-----|-----|----|------------------------------|-----------------------------------------|
| 100 | 12.5 | 47 | 111 | 100 | 22 | 640.0 | 935.0 |

Dimensions - standard version

TYPE 5



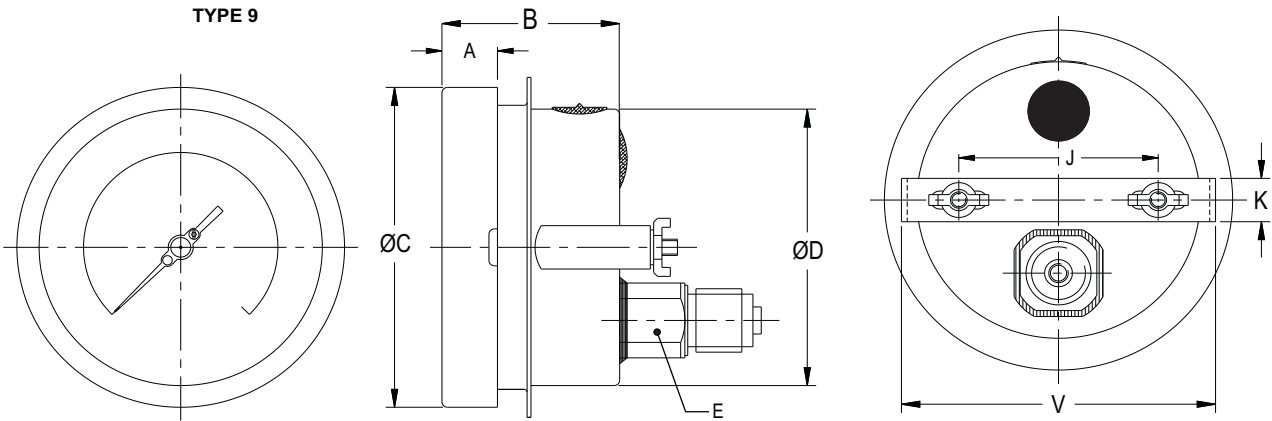
TYPE 11



| NS | A | B | ØC | ØD | E | S | ØI | ØN | ØU | Weight in gram (With Box) | Weight in gram (With Glycerin & Box) |
|-----|------|------|-------|-------|----|-----|----|-----|-----|------------------------------|-----------------------------------------|
| 100 | 12.5 | 45 | 111 | 100 | 22 | 1 | 6 | 134 | 118 | 695.0 | 990.0 |
| 125 | 15 | 46 | 129 | 119 | 22 | 1 | 6 | 150 | 137 | 850.0 | 1170.0 |
| 150 | 15 | 46.5 | 161 | 149 | 22 | 1 | 6 | 186 | 168 | 1100.0 | 1835.0 |
| 200 | 18 | 49 | 216.5 | 201.5 | 22 | 1.5 | 7 | 245 | 230 | 2000.0 | 2760.0 |
| 250 | 18 | 52 | 263 | 250 | 22 | 1.5 | 7 | 290 | 276 | 2250.0 | 3070.0 |

| NS | A | B | ØC | ØD | E | S | ØI | ØN | ØU | Weight in gram (With Box) | Weight in gram (With Glycerin & Box) |
|-----|------|----|-----|-----|----|---|----|-----|-----|------------------------------|-----------------------------------------|
| 100 | 12.5 | 47 | 111 | 100 | 22 | 1 | 6 | 134 | 118 | 730.0 | 1025.0 |
| 125 | 15 | 48 | 129 | 119 | 22 | 4 | 6 | 150 | 137 | 815.0 | 1135.0 |
| 150 | 15 | 49 | 161 | 149 | 22 | 5 | 6 | 186 | 168 | 1100.0 | 1835.0 |

TYPE 9



| NS | A | B | ØC | ØD | E | J | K | V | Weight in gram (With Box) | Weight in gram (With Glycerin & Box) |
|-----|------|----|-------|-------|----|-------|----|-----|------------------------------|-----------------------------------------|
| 100 | 12.5 | 47 | 111 | 100 | 22 | 72 | 16 | 108 | 740.0 | 1035.0 |
| 125 | 15 | 48 | 129 | 119 | 22 | 75 | 16 | 125 | 890.0 | 1210.0 |
| 150 | 15 | 49 | 161 | 149 | 22 | 106.5 | 16 | 166 | 1100.0 | 1835.0 |
| 200 | 18 | 49 | 210.5 | 201.5 | 22 | 165 | 16 | 208 | 1920.0 | 2680.0 |
| 250 | 18 | 52 | 263 | 250 | 22 | 180 | 30 | 270 | 2300.0 | 3120.0 |

Notes : • Drawings are not to scale. • All Dimensions are in mm . • NS = Nominal size
• Weights mentioned are approximate and for standard product. Weight can be different after selection of options.

Range Table

Note : We offer National / International Scales like kPa, MPa, bar, psi, kg/cm² & 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/cm² & psi scales.

Pressure

Single Scale (kg/cm² or bar)

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

Dual Scale (psi with kg/cm²)

| psi | kg/cm ² | psi | kg/cm ² | psi | kg/cm ² |
|-------|--------------------|--------|--------------------|---------|--------------------|
| 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 | 0/420 |
| 0/100 | 0/7 | 0/1000 | 0/70 | 0/10000 | 0/700 |
| 0/150 | 0/10 | 0/1500 | 0/100 | 0/15000 | 0/1000 |
| 0/220 | 0/16 | 0/2200 | 0/160 | 0/22000 | 0/1600 |
| 0/300 | 0/20 | 0/3000 | 0/200 | | |

Vacuum & Compound

Dual Scale (inHg with psi & mmHg with kg/cm²)

| inHg with psi | mmHg with kg/cm ² | inHg with psi | mmHg with kg/cm ² | inHg with psi | mmHg with kg/cm ² |
|---------------|------------------------------|---------------|------------------------------|---------------|------------------------------|
| - 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 | - 760/25 |

Single Scale (kg/cm²)

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

Receiver

| Linear scale | Square root scale |
|------------------------------------------|------------------------------------------|
| (0 - 100% Internal Scale) | (0 - 10 Sq - Root Internal Scale) |
| External Scale | External Scale |
| 0.2 - 1 kg/cm ² or 3 - 15 psi | 0.2 - 1 kg/cm ² or 3 - 15 psi |
| (0-100% linear scale) | (0.2 - 1 kg/cm ²) |

Freon (with temperature scale)

Ammonia (with temperature scale)

Note : For temperature scales, please provide refrigerant name.

| Range (psi) | | (kg/cm ²) | (psi) |
|----------------|-------|------------------------|----------------|
| -30 inHg - 150 | 0-300 | -1 to 12.5 | -30 inHg - 150 |
| -30 inHg - 300 | 0-500 | -1 to 16 | -30 inHg - 300 |
| | | -1 to 25 | 0 - 300 |

Accessories (refer datasheet for complete specifications)

| | | |
|-------------------------|-----------------------------------------------|-------------------|
| EB Cooling tower | ED Over load protector (gauge saver)** | EG Snubber |
| EC Gauge cock | * Needle valve | EH Siphon |

* Refer catalogue for Valves & Manifolds.

** For Pressure Ranges.

How To Order Example

Basic Model
Code

| Nominal Size | F | G | H | I | J |
|--------------|--------|--------|--------|--------|--------|
| | 100 mm | 125 mm | 150 mm | 200 mm | 250 mm |

Type of Mounting

| | |
|----|-----------------------------------------------------------------|
| 1 | Wall / surface / projection mounting with bottom entry |
| 2 | Direct bottom entry |
| 3 | Direct lower back entry |
| 4 | Direct center back entry (for NS 100 mm only) |
| 5 | Lower back entry with front flange |
| 6 | 2" pipe / yoke mounting with bottom entry* |
| 9 | Lower back entry with mounting bracket |
| 11 | Bottom entry with front flange (for NS 100 mm, 125 mm & 150 mm) |

* MOC of bracket and 'U' clamp will be steel (painted). Ask factory for drawings, if required.

| Gauge Connection | F | G | H | I | J |
|---------------------------------|----|---|---|---|---|
| 2BM 1/4" BSP(M) | ✓ | ✓ | ✓ | × | × |
| 2NM 1/4" NPT(M) | ✓ | ✓ | ✓ | × | × |
| 2TM 1/4" BSPT(M) | ✓ | ✓ | ✓ | × | × |
| 3BM 3/8" BSP(M) | ✓* | ✓ | ✓ | ✓ | ✓ |
| 3TM 3/8" BSPT(M) | ✓ | ✓ | ✓ | ✓ | ✓ |
| 4BM 1/2" BSP(M) Standard | ✓ | ✓ | ✓ | ✓ | ✓ |
| 4NM 1/2" NPT(M) Standard | ✓ | ✓ | ✓ | ✓ | ✓ |
| 4TM 1/2" BSPT(M) | ✓ | ✓ | ✓ | ✓ | ✓ |
| 4MM M 20x 1.5(M) | ✓ | ✓ | ✓ | ✓ | ✓ |

* Standard for NS 100 mm.

Note : Connections like Metric/ PT/ PF/ Flaired/ UNF/ G/ R etc. can be provided on request.

Range

Refer range table

Optional Extras

| | | |
|-----------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|-------------------------------------------------------------------|
| OA Accuracy ± 0.5% of F. S. (for dry version) | GH Material test certificates*** | SB Internal vacuum stop |
| TI Monel bourdon & socket (Monel version)** | KA ON - OFF type vent plug | ZB Receiver range |
| FL Integral dampening screw (Monel) | PV IBR approval # | ZC Freon range (with temperature scale) |
| FS Fillable liquid silicon oil* | RG Anti parallax mirror band dial ## | ZD Ammonia range (with temperature scale) |
| FG Fillable liquid glycerine | EZ External zero adjustment | PS AISI 316 SS case & bezel |
| PY Dampening liquid glycerine filled | SX SS tag plate | SD AISI 316 SS movement |
| QA Dampening liquid silicon oil filled* | SW Dial tag marking | CK Epoxy painted case & bezel |
| RR Enclosure protection IP 66 | TB Helium leak test | ZM Electro polished case & bezel |
| RE Enclosure protection IP 67 | TF Conformity as per NACE Standard | SQ Case with rolling type bezel (for NS 100 mm) |
| RW Plexi glass | PW Five point calibration certificate | ZL Over range protection 150% of F. S. |
| RX Shatterproof/safety glass | PU Calibration certificate traceable to National/International standards | JU 2" pipe/yoke mounting bracket & 'U' clamp (AISI 304 SS) |
| RZ Toughened glass | SG Oxygen service (for dry version) | FN 2" pipe/yoke mounting bracket & 'U' clamp (AISI 316 SS) |
| SF Movement with dampening jelly | RH Custom designed dial | GO Short over pressure |
| SI Knife edge pointer | QB Integral dampening screw (AISI 316 SS) | |
| SJ Maximum reading pointer with plexi glass (except option OA & only for dry version)◆ | SA Internal over pressure stop | |
| CE CE marking (as per PED 97/23/EC)◆ | | |

* Gasket & Filling plug of for Viton. **Integral dampening screw will be in monel if ordered. Refer option FL.

***Material test certificates will be provided for wetted parts only with chemical composition testing. For others, please consult factory.

For NS 150 mm & above. Scale shall be marked in kg/cm² only. Consult factory for more details.

For NS 150 mm & Above. ◆ For NS 100 mm to 150 mm.

Ordering Example: AL . X . X OR XX . XXX . 0/10 kg/cm² . XX

For other optional items, please contact factory for delivery and minimum quantity of order.

Note : Specifications and dimensions given in this product catalogue represents the state of engineering at the time of printing. Modifications may take place and materials specified may be replaced by others without prior notice.