

**MICRO** diaphragm seals are used wherever it is necessary to avoid direct contact of the pressure gauge with the measured medium, like 1) The process fluid being measured would contain solid particles or viscous which would normally clog the pressure element. 2) Pressure element materials capable of withstanding corrosive effects of certain fluids are not available. 3) The process fluid might freeze due to changes in ambient temperature and damage the element. This is a common occurrence in the chemical, petrochemical, food and paper industries or wherever special process technique takes place. Chemical seals transmit the pressure from a process fluid to a pressure instrument and act as an isolating element. In most cases pressure instrument is directly mounted on the diaphragm seals, but the separation is possible through installing a flexible connection line or capillary tube between diaphragm seal and pressure instrument. As the entire system is filled, the connection between the pressure sensor and pressure instrument can't be separated. Both parts are sealed to avoid tampering



## PRESSURE GAUGES

### Technical Specifications: (Confirming to EN-837-3 & IS-3624)



Threaded End Direct Sealed

Flanged End Direct Sealed

Flanged End Remote Sealed

Threaded End High Pressure Sealed

Welded Compact Sealed

Diaphragm Sealed with Electrical Contact

Sealed incorporated with Cooling Tower

I-Section Sealed

- **Nominal size :**  
Ø 50, 63, 100, 115, 150, 200, 250 & 300 mm
- **Accuracy :**  
±1% of FS (From 1 to 70 bar)  
±1.6% of FS (≥ 100 bar) (±1% Optional)  
±1.6% of FS (For Vacuum)
- **Case & Bezel :**  
SS 304 Case with Snap Action bayonet lock type bezel (SS 316 Optional)  
SS 304 Case with Crimped Bezel (Hermetically Sealed) (For Ø 50, 63 & 100 mm Optional)
- **Ingress Protection :**  
IP 65 as per EN 60 529 or IS/IEC 60 529  
IP 68 as per IS/IEC 60 529 for Ø 100 & 150 mm-Optional
- **Pressure element : Bourdon Tube**  
SS 316 / SS 316L / SS 316Ti (Monel 400 Optional)  
( < 100 bar 'C' shape / ≥ 100 bar helical shape)
- **Over pressure limit :**  
≤ 100 bar - 125% of FS  
> 100 bar < 600 bar - 115% of FS  
> 600 bar < 1600 bar - 110% of FS
- **Movement :**  
SS 304 (SS 316 optional)
- **Socket :**  
SS 304 / SS 316 / SS 316L (Monel 400 Optional)
- **Dial :**  
Aluminium – Pre-coated White with black marking
- **Pointer :**  
Aluminium – Black Finish Center / Micro Zero Adjustment
- **Window :**  
4 mm thick Toughened Glass (Safety / Shatter Proof Optional)  
Transparent Acrylic Window for Hermetically Sealed Glycerin Filled Case
- **Joints :**  
Argon welded
- **Sealing gasket :**  
Neoprene Rubber (EPDM Optional)  
Nitrile Rubber for Glycerin Filled Case
- **Blow out protection :**  
Neoprene Rubber (EPDM Optional)  
For Ø 50 & 63 mm : On Top of Case  
For ≥ Ø 100 mm : On Back of Case
- **Pressure relief :**  
Top of Case with Vent Valve (On Request)
- **Sealed Unit :**  
Upper Chamber : SS 304 (Standard) / SS 316  
Diaphragm : SS 316L (Standard) / Hastelloy C / Monel / Tantalum / Nickel (200/400) / Upper Chamber) PTFE Coating protection/Other on request  
Lower Chamber : SS 316 (Standard) / SS 316L / Tantalum / Monel / Hastelloy C / PTFE or PFA Coating or Lining (3mm) protection  
Transmitting Fluid : Silicon Oil (Standard) / Halocarbon / Glycerin / Vegetable Oil etc.
- **Process Connection :**  
1/4" / 3/8" / 1/2" / 3/4" / 1" / 1 1/2" / 2" BSP / NPT / BSPT (Male), M20 X 1.5 (Male)  
1/2" / 3/4" / 1" / 1 1/2" / 2" / 3" Flanged / I-Section Flanged (Others on Request)
- **Permissible temperature :**  
Ambient : -25°C to 65°C  
Process : Maximum 150°C (Direct Reading)  
Maximum 350°C (Remote Reading)
- **Type of mounting :**  
Bottom Connection Direct Mounting  
Back Connection Direct Mounting  
Bottom Connection Surface Mounting with Capillary Extension  
Back Connection Panel Mounting with Capillary Extension  
Back Connection Bracket Mounting with Capillary Extension
- **Pressure range :**  
-30" Hg ... 0 ... 1000 bar
- **Optional Available features :**
  - Liquid Fillable Case / Glycerin (99.7%) Filled Case
  - Solid front case (Safety Pattern) for Ø 100 & 150 mm
  - External Zero Adj. for ≥ Ø 100 mm
  - Electrical Contact for Ø 100 & 150 mm
  - Cooling Tower Assembly
  - Over Range Protection above pressure Range
  - Flushing Arrangement (1/4" NPT Plug)
  - Welded Compact Seal up to Pressure range 70 bar
  - Phenolic Solid Front safety design case for Ø115 mm

### APPLICATION

- Petrochemical Industries
- Fertilizer Industries
- Pulp & Paper Industries
- Food processing plant
- Water Treatment Plant
- Pharmaceutical Industries
- Offshore
- Ship building
- Power plant, etc...