# Differential pressure gauges



#### Application:

Mainly used for measuring the difference between two pressure values, in the plus and minus ends of filter, the level of liquid, the entrance and exit of pump, oil pipeline, gas pipeline and high pressure pump station and so on. It is excellent while overpressure take place, also suitable for corrosion environments.

#### Features:

- Withstanding pressure10Mpa
- Vibration-proof type
- Capillary diaphragm
- Multifold mounting type

## Specifications

Dial size: 4". 6". Accuracy class: 1.6%, 2.5%

Case: SS304 Connection: SS316

Movement: SS304

Dial: Aluminum, white Pointer: Aluminum, black,

zero adiustable

Window: Laminated safety glass Maximum static pressure: 6MPa

Overpressure protection: both ends support 10MPa

Diaphragm material: 316L(for negative pressre)

316Ti(for positive pressure)

Operate temperature: -20 °C ~ 60 °C Protection rating:

Range: 16KPa. 25KPa. 40KPa ... 1000KPa Connection: M20X1.5.G1/2.NPT1/2.NPT1/4.

thread inside (without 3-way manifold)

or capillary connection, capillary threaded connection, diaphragm capillary flanged connection (mainly used in viscous medium

or diaphragm in special materials)

NOTE: The instrument should be used with 3-way manifold group or 5-way manifold.

#### Manifold



Three way valve



Five way valve

| Process side | Gauge side     | Distance   | PTFE    |         |  |
|--------------|----------------|------------|---------|---------|--|
| Process side |                | Distalline | SS304   | SS316L  |  |
| 1/4NPT male  | 1/4NPT female  | 37/50/54   | 8953162 | 8953166 |  |
| 1/2NPT male  | 1/2NPT female  | 37/50/54   | 8953163 | 8953167 |  |
| M20x1.5 male | M20x1.5 female | 37/50/54   | 8953164 | 8953168 |  |
| G1/2male     | G1/2 female    | 37/50/54   | 8953165 | 8953169 |  |

| Process side | Gauge side     | Distance | PTFE    |         |  |
|--------------|----------------|----------|---------|---------|--|
|              |                |          | SS304   | SS316L  |  |
| 1/4NPT male  | 1/4NPT female  | 37/50/54 | 8955131 | 8955135 |  |
| 1/2NPT male  | 1/2NPT female  | 37/50/54 | 8955132 | 8955136 |  |
| M20x1.5 male | M20x1.5 female | 37/50/54 | 8955133 | 8955137 |  |
| G1/2male     | G1/2 female    | 37/50/54 | 8955134 | 8955138 |  |

| Process side | Gauge side     | Distance   | PTFE    |         |  |
|--------------|----------------|------------|---------|---------|--|
| Process side |                | Distallice | SS304   | SS316L  |  |
| 1/4NPT male  | 1/4NPT female  | 37/50/54   | 8955131 | 8955135 |  |
| 1/2NPT male  | 1/2NPT female  | 37/50/54   | 8955132 | 8955136 |  |
| M20x1.5 male | M20x1.5 female | 37/50/54   | 8955133 | 8955137 |  |
| G1/2male     | G1/2 female    | 37/50/54   | 8955134 | 8955138 |  |
|              |                |            |         |         |  |





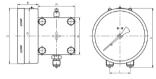
# Differential pressure gauges

# Manifold specification:

Body material: SS304 or SS316L Nominal pressure: 6000PSI/10000PSI Sealing packing material: PTFE(-20 ~ 230 °C)

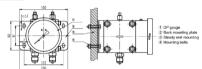
Dimentions:





| Type code | mm  |     |    |     |       |    |
|-----------|-----|-----|----|-----|-------|----|
|           | D   | D1  | В  | н   | Pr/P2 | L  |
| 100       | 111 | 97  | 51 | 141 | 100   | 54 |
| 150       | 149 | 147 | 55 | 158 | 100   | 54 |

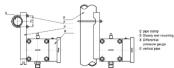
### Back mounting:



#### Note:

- 1. back mounting fit for plate mounting(instrument plate, and outer surface etc);
- 2. make sure the plane and differential gauge are tight, which will not mount the fall off;
- 3. special back plate available as per request.

#### Steady rest mounting:

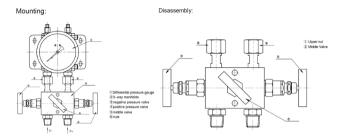


## Note:

- 1. steady rest mounting is suitable for pipe(horizontal or vertical etc);
- 2. outer diameter of pipe can't over 60mm

# Differential pressure gauges

### Three valves mounting, disassembly and method of application:



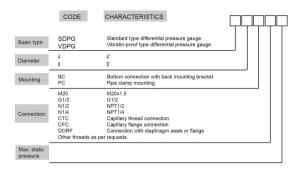
#### Mountina:

- 1. Use differential gauge must fit out three valves in order to insure it s normal working.
- 2. The differential gauge and there valves are connected by two nuts tightly, nuts and socket are with PTFEspacer.
- Open the middle valve, negative pressure valve and positive pressure valve before use the differential gauge, when either of P- or P+ input, the middle valve can have equilibrium activity, and avoid to damage the gauge.
- 4. When P- and P+ normal input the three valves, the close the middle valve, to make the gauge works right. If the gauge's pointer is not at zero, please adjust it to zero (note must use soap water to inspect the seal, if has leak, please tight.)
- 5. The differential pressure gauge has back plate mounting (see the chart) and standpipe fixed (the pipe with clamp).

### Disassembly:

- Open the middle valve, negative pressure valve and positive pressure valve (negative pressure valve and positive pressure valve original state is open).
- 2. Close these two input valves (on the main pipe of equipment).
- Discharge instrument (discharge two nuts), use spanner lock the socket of gauge, and just discharge the nuts on three valves Discharge pressure, then put off the nuts and clamp.
- 4. Screw down the two nuts and take down the differential pressure gauge (note screw down these two nuts together)
- 5. Then install the new gauge (same as mounting method), change two spacers to ensure it will not leak.
- 6. Fix the clamp.
- 7. Open main switch (two), then close the middle valve. (use soap water to inspect leak)
- 8. Two minutes later, set the pointer at zero (if it does not out off zero, you needn

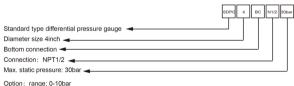
# How to order differential pressure gauge:



## Options to be added:

- 1. range:
- 2. combined with 3-way manifold
- 3. combined with 5-way manifold

# Order example:



Option: range: 0-10bar

combined with 3-way manifold