

ULTRA HIGH PURITY GAUGES
MODEL : P810 Series(Type 316L)



SERVICE INTENDED

The P810 Series specifically designed for ultra high purity gas distribution system used in semiconductor industry and electronic, medical, biotechnology, pharmaceutical industry.

NOMINAL DIAMETER

50mm (2"), 63mm(2 1/2")

ACCURACY

Grade A(ASME B40.1)

Lower 1/4 of scale - $\pm 2.0\%$ of span

Middle 1/2 of scale - $\pm 1.0\%$ of span

Upper 1/4 of scale - $\pm 2.0\%$ of span

Class 1.6(EN837-1) - $\pm 1.6\%$ of span

Class 1.0(EN837-1) - $\pm 1.0\%$ of span - optional



SCALE RANGE

30 inHg vacuum to 4000 psi, single or dual scale(psi - bar)

WORKING PRESSURE

Steady pressure : 75% of full scale value

Fluctuating pressure : 67% of full scale value

OPERATING TEMPERATURE

Ambient : -40°C to $+60^{\circ}\text{C}$

Medium : $+100^{\circ}\text{C}$ maximum

Standard Features

PRESSURE CONNECTION

- Type 316L Stainless steel electropolished
- low mount or center back mount
- surface finish $R_a \leq 0.25 \mu\text{m}$
- 1/4 inch NPT male thread
- VCR[®] male or female face seal fitting

PRESSURE ELEMENT

- Type 316L Stainless steel
- < 60 bar : C-type bourdon tube
- ≥ 60 bar : helical type bourdon tube

MOVEMENT

Type 304 Stainless steel

DIAL

- White aluminum, with pointer stop pin
- With black/red lettering, dual pressure scale(bar/psi)

POINTER

Black aluminum pointer

CASE

Type 304 Stainless steel, electropolished with pressure relief

RING AND WINDOW

Twist-lock polycarbonate

HELIUM LEAK RATE

Tested to confirm leakage rates of less than 10^{-9} mbar·l/sec

OPTION

100mm -P252 DIMENSION

Ordering Information

BASE MODEL

P810 : Ultra high purity gauges - 316L

< Range Table >

| CODE | bar | psi |
|------|---------|----------------|
| 026 | -1 ~ 0 | -30 inHg ~ 0 |
| 027 | -1 ~ 1 | -30 inHg ~ 15 |
| 028 | -1 ~ 2 | -30 inHg ~ 30 |
| 030 | -1 ~ 4 | -30 inHg ~ 60 |
| 031 | -1 ~ 6 | -30 inHg ~ 100 |
| 032 | -1 ~ 10 | -30 inHg ~ 150 |
| 033 | -1 ~ 15 | -30 inHg ~ 200 |
| 034 | -1 ~ 20 | -30 inHg ~ 300 |
| 041 | 0 ~ 1 | 0 ~ 15 |
| 042 | 0 ~ 2 | 0 ~ 30 |
| 044 | 0 ~ 4 | 0 ~ 60 |
| 045 | 0 ~ 6 | 0 ~ 100 |
| 047 | 0 ~ 10 | 0 ~ 150 |
| 050 | 0 ~ 15 | 0 ~ 200 |
| 051 | 0 ~ 20 | 0 ~ 300 |
| 052 | 0 ~ 25 | 0 ~ 400 |
| 054 | 0 ~ 35 | 0 ~ 500 |
| 055 | 0 ~ 50 | 0 ~ 800 |
| 057 | 0 ~ 70 | 0 ~ 1000 |
| 058 | 0 ~ 100 | 0 ~ 1500 |
| 059 | 0 ~ 150 | 0 ~ 2000 |
| 062 | 0 ~ 250 | 0 ~ 4000 |

NOMINAL DIAMETER

- 1 : 50mm (2")
- 2 : 63mm (2 1/2")
- 4 : 100mm (4")

MOUNTING

- A : Low mount(LM)
- F : Center back mount(CBM)

ACCURACY

- 3 : 1.0 Class
- 4 : 1.6 Class

CONNECTION TYPE

- CD : 1/4" NPT(male)
- SF : Swivel female face seal
- SM : Swivel male face seal
- FM : Fixed male face seal

UNIT

- K : psi
- H : bar
- Q : bar & psi

RANGE

Refer to range table

PRESSURE CONNECTION

MAT'L & DAILS

- 4 : 316LSS & 2 Colors
- 8 : 316LSS & 3 Colors

OPTIONS

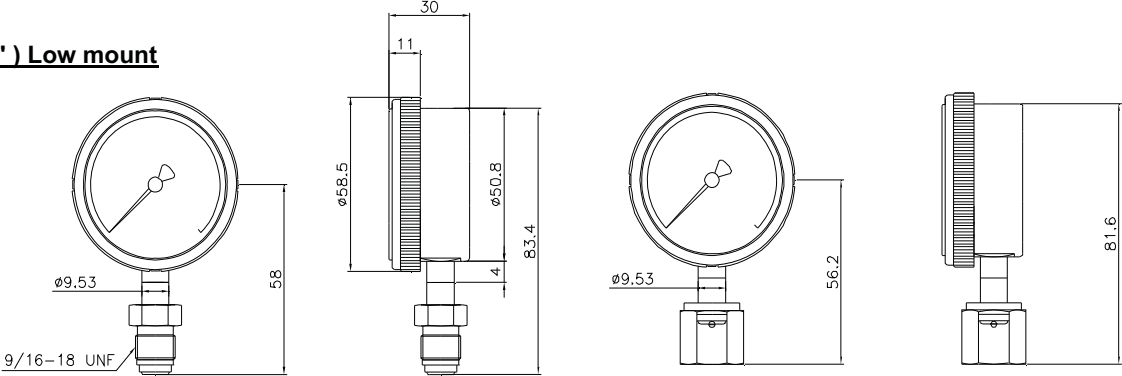
- 0 : None
- 1 : Accessories

| | | | | | | | | |
|------|---|---|---|----|---|-----|---|---|
| P810 | 1 | A | 3 | SF | Q | 047 | 8 | 0 |
|------|---|---|---|----|---|-----|---|---|

Example : Model P810 Pressure Gauge, dial size 50mm, low mounting, 1.0 Class swivel female face seal, bar&psi, 0 ~ 10, 316LSS & 3 Colors

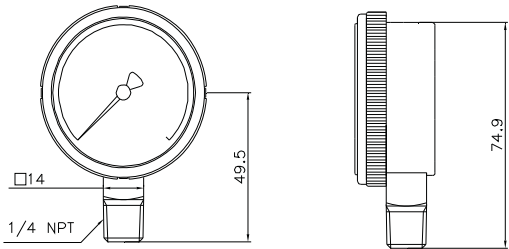
Dimensions

Φ50(2") Low mount



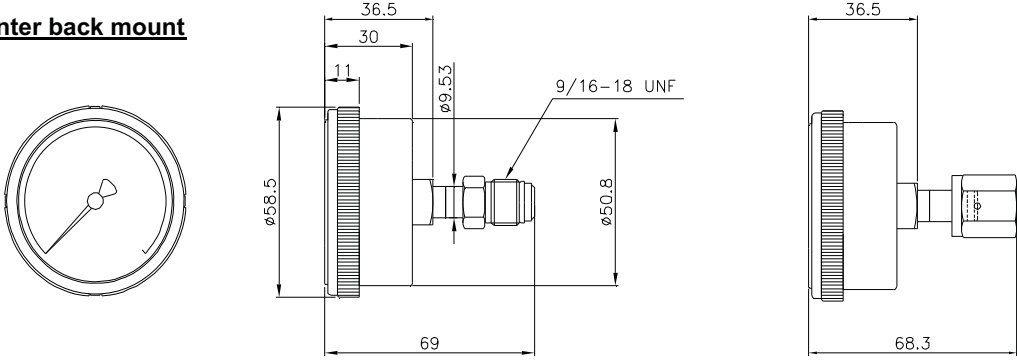
SWIVEL MALE

SWIVEL FEMALE



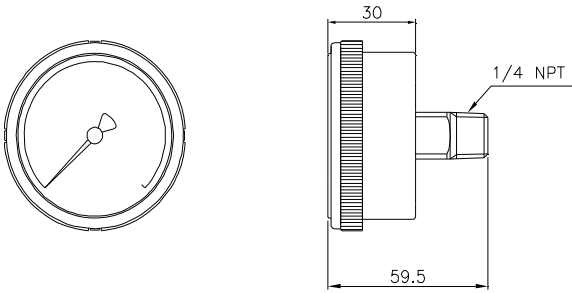
NPT MALE

Φ50(2") Center back mount



SWIVEL MALE

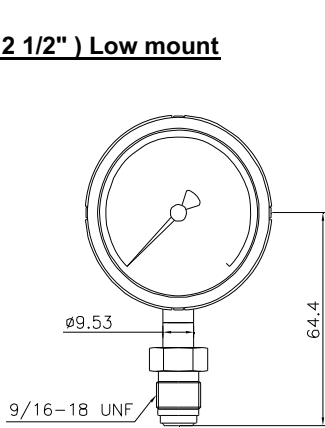
SWIVEL FEMALE



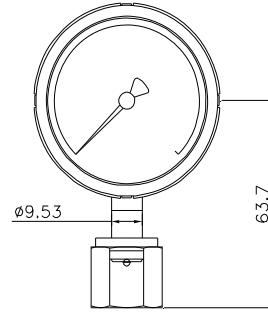
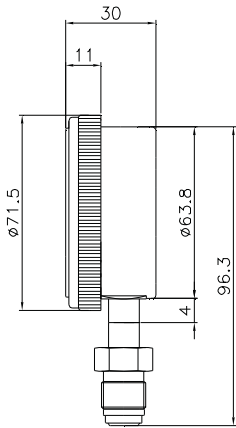
NPT MALE

Dimensions

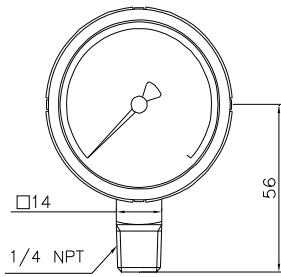
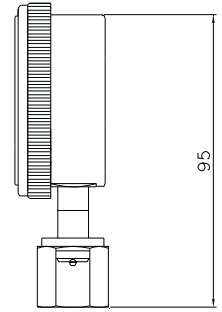
Φ63 (2 1/2") Low mount



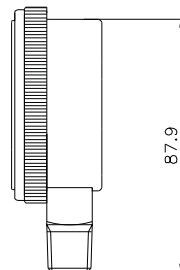
SWIVEL MALE



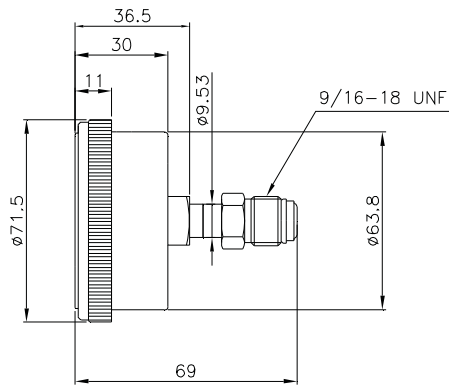
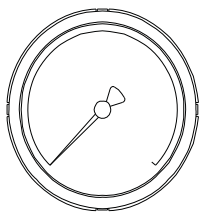
SWIVEL FEMALE



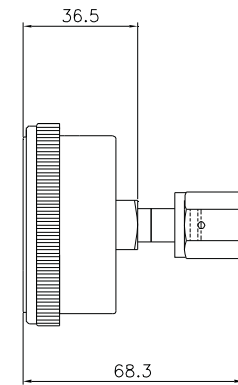
NPT MALE



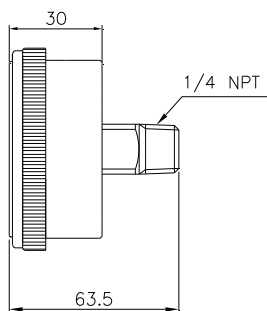
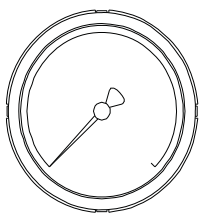
Φ63 (2 1/2") Center back mount



SWIVEL MALE



SWIVEL FEMALE



NPT MALE