

Ultra High Purity Pressure Gauges

GP Series

GP series pressure gauges are designed for ultra high purity gas distribution systems used in semiconductor, electronic and medical industries, etc. They are applicable for gases, liquids and corrosive media in high purity conditions, and also in corrosive environments.

Features

- ⦿ 2 in. (50 mm), 2 1/2 in. (63 mm) dial sizes
- ⦿ Up to 6000 psi measurement range
- ⦿ Inner surface electropolished to a roughness $Ra \leq 10 \mu\text{in.}$ (0.25 μm)
- ⦿ Leak rate (helium): $\leq 1 \times 10^{-9}$ std cm^3/s
- ⦿ Lower or center-back mount optional
- ⦿ For ultra high purity application



Technical Data

| | | |
|------------------------------|---------------------------------|--------------------------------------|
| Accuracy | | ASME B40.1 Grade A |
| Dial Ranges | Compound Gauges | Vacuum to 15 psi ~ Vacuum to 300 psi |
| | Positive Pressure Gauges | 0 to 15 psi ~ 0 to 6000 psi |
| Working Pressure | Static Pressure | 75% of the dial range |
| | Dynamic Pressure | 67% of the dial range |
| | Instantaneous Pressure | 100% of the dial range |
| Operating Temperature | Ambient Temperature | -40~140°F (-40~60°C) |
| | Media Temperature | Up to 212°F (100°C) |
| Protection Class | | IP 54 |

Materials of Construction

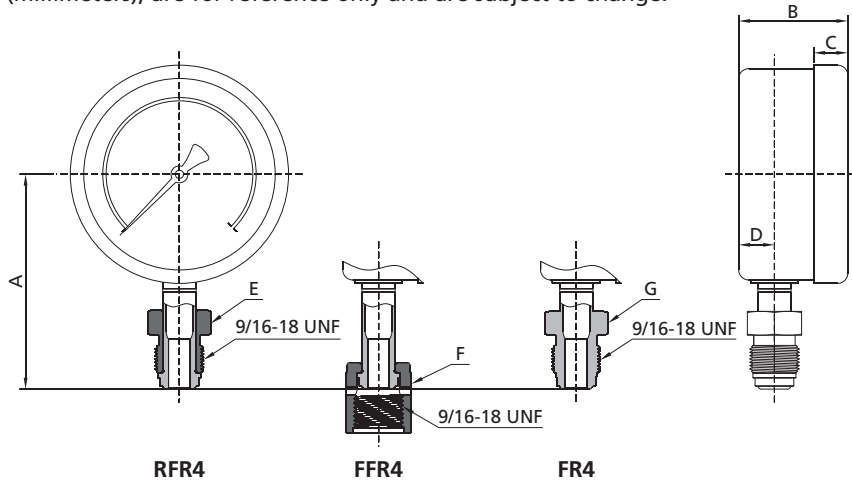
| Component | Material |
|----------------|-----------------|
| End Connection | 316L SS |
| Bourdon Tube | 316L SS |
| Case | Stainless steel |
| Lens | Safety glass |
| Dial | Aluminum |
| Pointer | Aluminum |

Connection Types and Mount Dimensions

Lower Mount

Dimensions

Dimensions, in inches (millimeters), are for reference only and are subject to change.

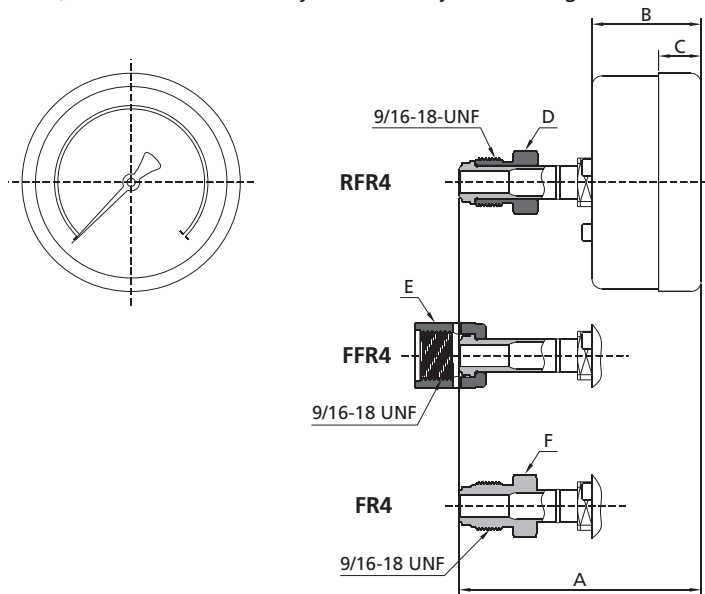


| Dial Size in. (mm) | Dimensions, in. (mm) | | | | | | |
|-----------------------|----------------------|-------------|-------------|-------------|-------------|-------------|-------------|
| | A | B | C | D | E | F | G |
| 2 (50) | 2.32 (58.9) | 1.04 (26.5) | 0.41 (10.5) | 0.41 (10.5) | 0.63 (16.0) | 0.75 (19.0) | 0.63 (16.0) |
| 2 1/2 (63) | 2.56 (65.0) | 1.26 (32.0) | 0.47 (12.0) | 0.43 (11.0) | 0.63 (16.0) | 0.75 (19.0) | 0.63 (16.0) |

Center-Back Mount

Dimensions

Dimensions, in inches (millimeters), are for reference only and are subject to change.



| Dial Size in. (mm) | Dimensions, in. (mm) | | | | | |
|-----------------------|----------------------|-------------|-------------|-------------|-------------|-------------|
| | A | B | C | D | E | F |
| 2 (50) | 2.60 (66.0) | 1.04 (26.5) | 0.41 (10.5) | 0.63 (16.0) | 0.75 (19.0) | 0.63 (16.0) |
| 2 1/2 (63) | 2.80 (71.0) | 1.30 (33.0) | 0.49 (12.5) | 0.63 (16.0) | 0.75 (19.0) | 0.63 (16.0) |

Ordering Number Description

GP - B50 - RFR4 - 100PB

| Series | Mount Type | Dial Size | Connection Type | | Dial Range |
|--------|---------------------|-----------|-----------------|---|----------------------------|
| GP | Lower Mount | 50 50 mm | RFR4 | 1/4" Rotatable Male FR Metal Gasket Face Seal Fitting | See Dial Range Designators |
| | B Center-back Mount | 63 63 mm | FFR4 | 1/4" Rotatable Female FR Metal Gasket Face Seal Fitting | |
| | | | FR4 | 1/4" Integral Male FR Metal Gasket Face Seal Fitting | |

Note: "Ordering Number Description" is a reference to understand the combination rules of FITOK product part number. Not all combinations are available.

Dial Range Designators

| Minimum Scale | Maximum Scale | | | Designator | |
|----------------------|---------------|-----------------|-----------------|--------------------------------|--------------------------------|
| | Unit | | | Dual Scale | |
| | Psi (Primary) | MPa (Secondary) | Bar (Secondary) | Psi (Primary), MPa (Secondary) | Psi (Primary), Bar (Secondary) |
| Vacuum -30 in. Hg | 15 | 0.1 | 1 | V15PM | V15PB |
| | 30 | 0.2 | 2 | V30PM | V30PB |
| | 60 | 0.4 | 4 | V60PM | V60PB |
| | 100 | 0.7 | 7 | V100PM | V100PB |
| | 160 | 1.0 | 10 | V160PM | V160PB |
| | 200 | 1.3 | 13 | V200PM | V200PB |
| | 300 | 2.0 | 20 | V300PM | V300PB |
| 0 | 15 | 0.1 | 1 | 15PM | 15PB |
| | 30 | 0.2 | 2 | 30PM | 30PB |
| | 60 | 0.4 | 4 | 60PM | 60PB |
| | 100 | 0.7 | 7 | 100PM | 100PB |
| | 160 | 1.0 | 10 | 160PM | 160PB |
| | 200 | 1.3 | 13 | 200PM | 200PB |
| | 300 | 2.0 | 20 | 300PM | 300PB |
| | 400 | 2.5 | 25 | 400PM | 400PB |
| | 600 | 4.0 | 40 | 600PM | 600PB |
| | 800 | 5.0 | 50 | 800PM | 800PB |
| | 1000 | 7.0 | 70 | 1000PM | 1000PB |
| | 1500 | 10.0 | 100 | 1500PM | 1500PB |
| | 2000 | 13.0 | 130 | 2000PM | 2000PB |
| 3000 | 20.0 | 200 | 3000PM | 3000PB | |
| 4000 | 25.0 | 250 | 4000PM | 4000PB | |
| 5000 | 35.0 | 350 | 5000PM | 5000PB | |
| 6000 | 40.0 | 400 | 6000PM | 6000PB | |

Notes:

1. The selected dial range should be approximately two times the system working pressure, and the system working pressure should be in the 25 to 75 % of the dial range.
2. Not all dial ranges and connections are available for all part numbers.
3. The maximum scale value of the dual scale gauge is based on the primary unit, the maximum value of the secondary unit is for reference only. For example, when the maximum range is 200 Psi and the maximum value of the primary unit (Psi) of the dial is 200, the maximum value of the secondary unit (MPa) may be 1.3 or 1.4.