

Ultra-high purity pressure gauge Model: PG500



PG500 series, ultra-high purity pressure gauges for special gases. Suitable for semiconductor, display, and solar cell manufacturers. Products are cleaned, assembled, and packaged in accordance with SEMI specifications. Products are subjected to 100% helium leak detection in an ISO Class 5 (Class 100) clean room, with a leakage rate of $\leq 10^{-9}$ mbar·l/s.



Applications

- Used for measuring gases and liquids, also suitable for corrosive media and environments
- Suitable for all UHP (ultra-high purity) applications
- Semiconductor and display industries, healthcare, biotechnology and pharmaceutical industries
- Gas distribution system
- Instrumentation and control system

Features

- Helium leak test
- Electrolytically polished housing
- Connection surface finish $Ra \leq 0.25 \mu m$
- VCR® external thread or internal thread face seal interface

Specifications

Dial size(mm)

40,50,63mm

Permissible temperature

Ambient: -40 ... +60°C
Medium: Up to +100°C

Accuracy class

Grade A (ASME B40.1)

Temperature effect

When deviating from the reference conditions of the measurement system:
 $\leq \pm 0.04\%$ of full scale per °C (reference temperature: 20 °C)
 $\leq \pm 0.4\%$ of full scale per °F (reference temperature: 68 °F)

Scale Range

-0.1...0 to 0...280 bar
Or all other equivalent vacuum or compound pressure and vacuum ranges

Pressure limitation

Steady: 3/4X full scale range
Fluctuation: 2/3X full scale range
Short Time: 1.0X full scale range



Model: PG500

Specifications

Process connection

- Stainless steel 316L
- Radial (L) or axial (B) installation
- VCR-compatible face seal interface:
- 9/16 - 18 UNF male or female thread connection
- Surface finish $Ra \leq 0.25\mu m$

Pressure element

Stainless steel 316L, C-type or helical type
Measuring system with gap-free design
Sealing performance: leakage rate $\leq 10^{-9}$ mbar·l/s (Test method: helium spectrometry)

Movement

Stainless steel

Pointer

Aluminum alloy, black

Case

Stainless steel 304, electrolytically polished

Window

Polycarbonate, screw-on type

Dial

Aluminum alloy, black/red font, double scale (bar/psi)

Purity grade

Ultra high purity application

Ingress protection

IP 54, comply with EN 60529 / IEC 529 standard

Packaging information

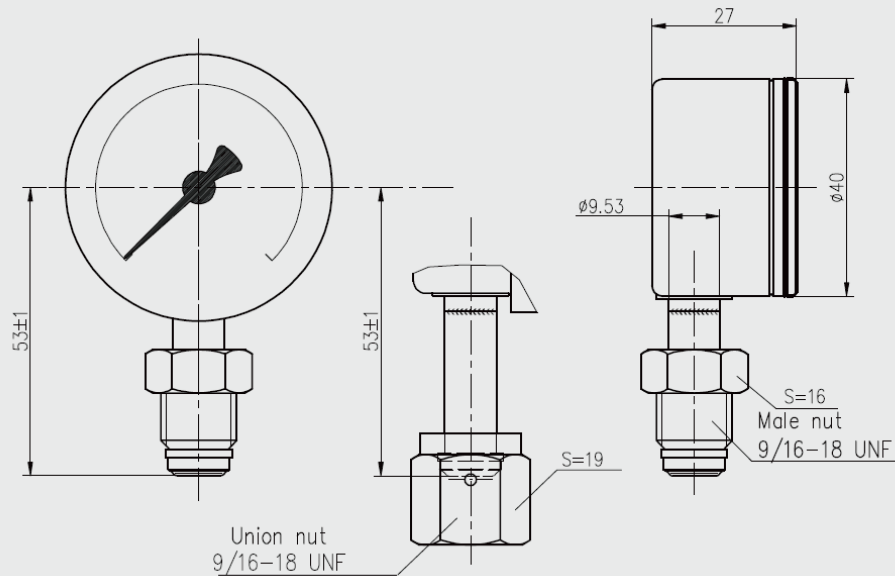
Packaging is completed in an ISO Class 5 clean room and is packaged in double-layer vacuum PE bags



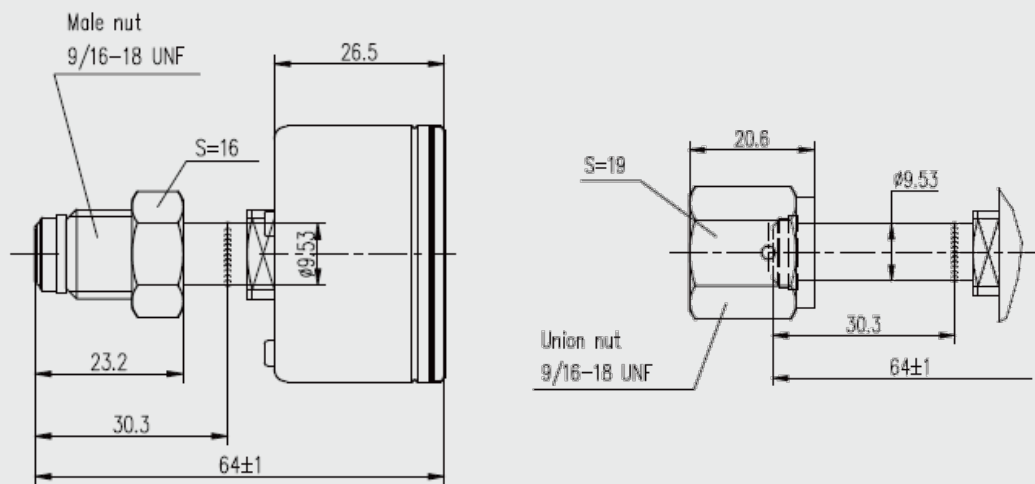
Model: PG500

Dimensions in mm

40mm Bottom mount(radial)



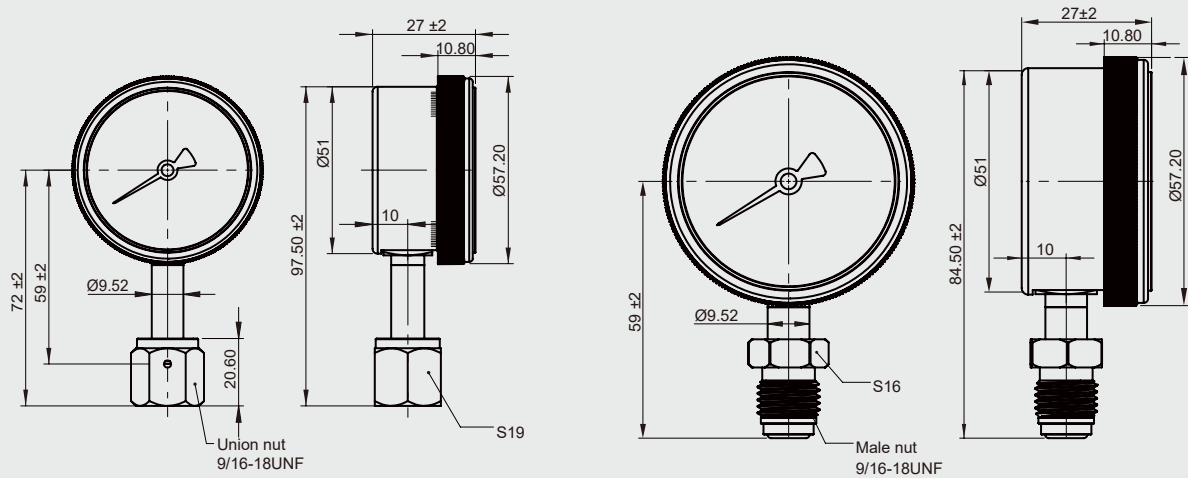
40mm Back mount(axial)



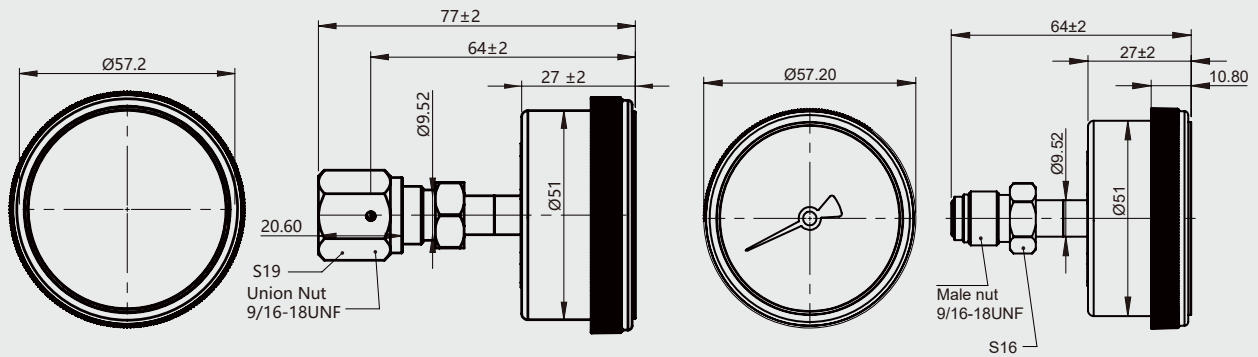
Model: PG500

Dimensions in mm

50mm Bottom mount(radial)



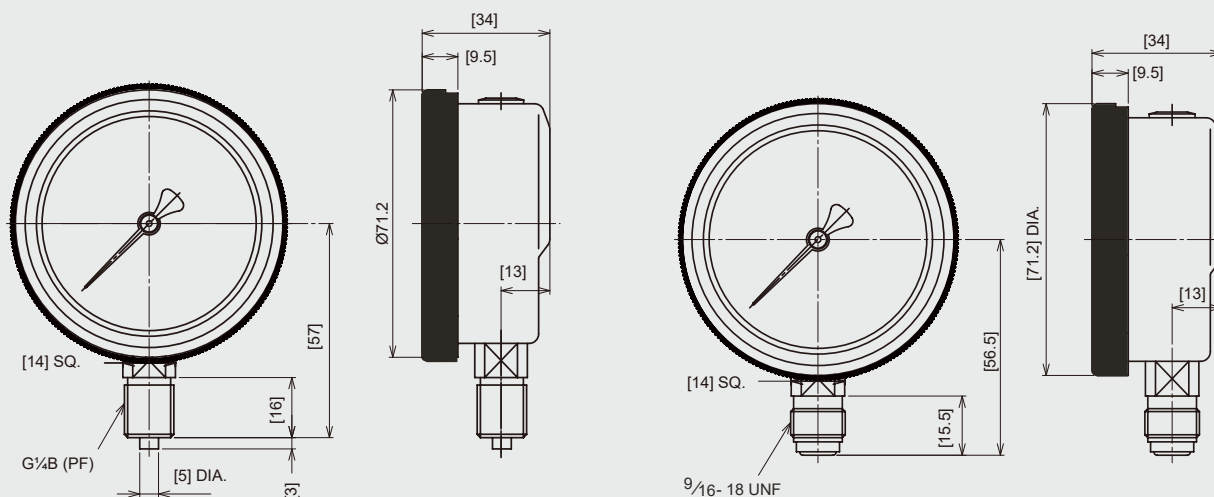
50mm Back mount(axial)



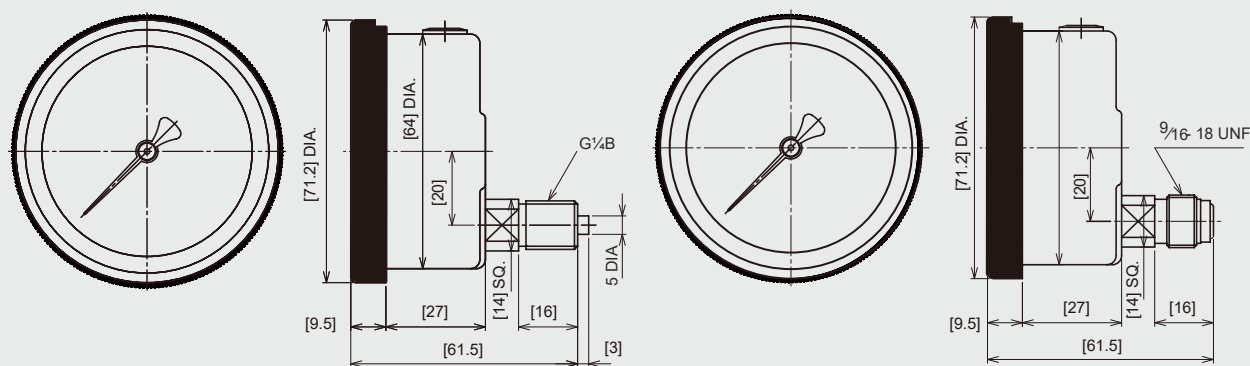
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Dimensions in mm

63mm Bottom mount(radial)



63mm Back mount(axial)



Model: PG500

ORDERING CODE							
Model PG500							
Dial size(mm)							
(40)-40mm							
(50)-50mm							
(63)-63mm							
Process connection location							
(L)-Bottom mount(radial)							
(B)-Back mount(axial)							
Purity grade							
(UHP) - Ultra high purity application							
Process connection sizes							
(SM) - Male thread 9/16-18UNF(compatible with 1/4 VCR®)							
(SF) - Female thread 9/16-18UNF(compatible with 1/4 VCR®)							
(TW) - Straight pipe welding							
(06) - 1/4 NPT,male thread							
Option							
(N/A) - " "							
Scale Range(coding examples only, see range table on page 7 for all standard ranges)							
0.3BR=0...0.3bar	N=Vaccum range						
0.3KG=0...0.3kg/cm ²	N1/3BR="-1...3bar"						
6KP=0...6kPa							
0.6MP=0...0.6MPa							
30#=0...30psi							



Pressure range selection table

Scale ranges		
Bar	Psi	MPa
N1/4BR	N30HG&60#	N0.1/0.4MP
N1/6BR	-	N0.1/0.6MP
N1/10BR	N30HG&150#	N0.1/1MP
-	N30HG&200#	-
N1/15BR	-	-
-	-	N0.1/1.6MP
N1/20BR	N30HG&300#	-
-	-	N0.1/2.5MP
4BR	60#	0.4MP
6BR	-	0.6MP
-	100#	-
10BR	150#	1MP
-	200#	-
16BR	-	1.6MP
-	300#	-
25BR	-	2.5MP
-	500#	-
40BR	600#	4MP
60BR	-	6MP
-	1000#	-
100BR	1500#	10MP
-	2000#	-
160BR	-	16MP
-	3000#	-
250BR	4000#	25MP

