PG800 UHP Pressure Gauge

Application Scenarios

Semiconductor /Photovoltaic

UHP Applications

Gas Distribution System

Corrosive Medium

UHP Pressure Gauge

UHP Pressure Switch Gauge

Product Features

Sealing	Testing	Packaging	Treatment	Cleanliness
9/16-18UNF	100% Helium Leak Testing	Vacuum Packaging in Class 100 Cleanroom	Process connection Ra≤0.4μm, EP level: Ra≤0.25μm	Oil sludge residue below 150mg/㎡, EP grade below 50mg/㎡

Product Description

- The PG800 is a pressure gauge specially designed for high-purity applications. It features an all-316L metal welded construction and offers optional semiconductor and photovoltaic-grade pressure fittings. The wetted surfaces undergo 100% specialized treatment, fully meeting the requirements for OEM pressure measurement in semiconductor, photovoltaic, food, and specialty gas pipeline applications.
- The PG800 achieves a maximum accuracy of 1.0 class, with a pressure range of up to 40MPa(6000 psi), fully meeting the high-precision pressure requirements of industries such as semiconductor/photovoltaic.
- Each product undergoes 100% leak testing to meet industry sealing standards, preventing the risk of leakage of flammable, explosive, corrosive, or toxic media.
- The product is manufactured entirely in a Class 100 cleanroom, undergoes 100% cleaning, and is vacuum-packaged to fully comply with SEMI standards.
- Electrical contacts are available as single or double contacts, with the option to include switch signal output.

Technical Specifications

Dial Diameter

1 ½"(40mm), 2"(50mm), 63mm

Measure Range

-0.1~0 to -0.1~0.9MPa

0~0.1 to 0~40MPa (0~15 to 0~6000psi)

Accuracy Grade

NS 1 ½": B Grade,
Compliant with ASME B40.1
NS 2": A Grade,
Compliant with ASME B40.1

Temperature Performance

When the temperature of the measurement system changes, performance is referenced to the standard ambient temperature of +20 °C. Maximum display error: ±0.4% of full-scale on a 10K dial.

Sensing Element

Stainless Steel 316L

<10 MPa: C-Type; ≥10 MPa: Spiral Type

Leak Rate: ≤1X10^{-10} Pa.m³/s

Method: Helium Spectroscopy

Process Connection

Material: SUS316L,

Radial(LM) or Axial(CBM)

Sealing device with compression, equipped with female thread nut; also available with male nut or 9/16-18 UNF male thread, and 1/4 NPT female thread.

Protection Grade

IP54 per EN 60529 / IEC 529

Gauge Core

Stainless Steel

Pointer

Black Aluminum

Dial

Two-Color/Three-Color, Dual-Scale/ Triple-Scale, Pointer Positioning Pin; Oil-Free Mark–For Oxygen Service Only

Housing

SUS304/316,
Electrolytic Finish

Cleanliness Level

Special Cases According to SEMI Standards

Gauge Glass

Safe Glass

NS 1 ½": Snap-in

NS 2": Screw on (twist-lock)

Special Design:

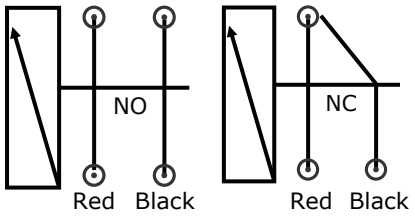
Optional version with switch electrical contacts available.
Other process connections can be customized.
Pressure fittings are finished to a very low surface roughness of Ra ≤ 0.25 μm.
Dial range up to 40 MPa; pressure connection is 1/4 NPT.

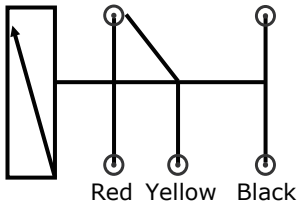
Contact Capacity

Maximum Operating Switch Voltage: 150VDC/ 100VDC; Withstand Pressure: 200VDC

Maximum Switching Current: 0.5A; Contact Power:10W

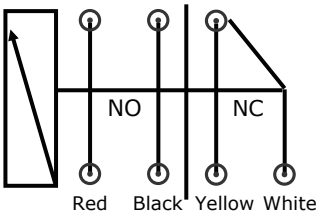
Single Contact Wiring Diagram:

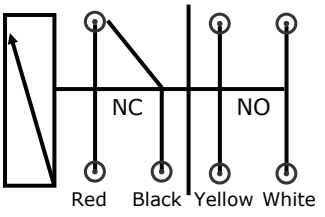


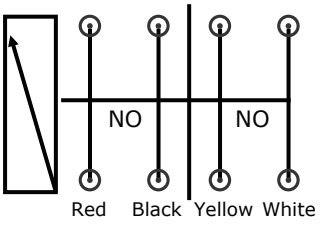


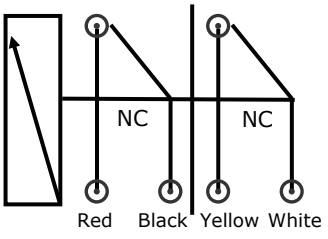
Single-Pole Double-Throw

Double Contact Wiring Diagram:
(NO and NC can be freely combined)



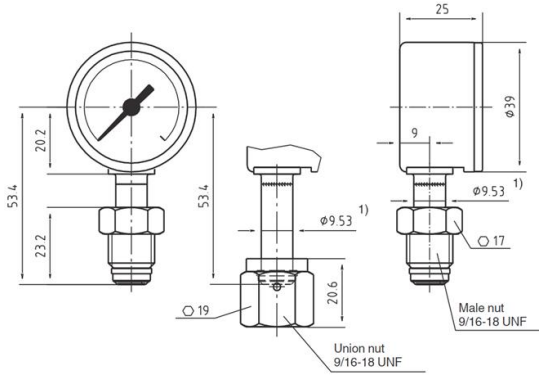




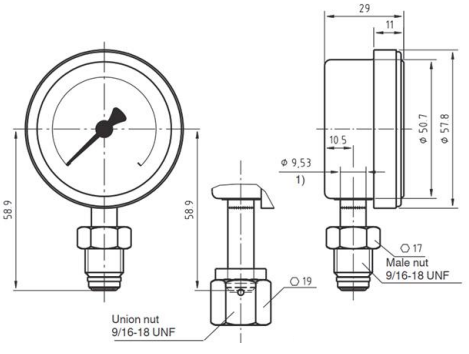


Dimensions

Standard Structure: NS 1½" (40 mm)–Radial

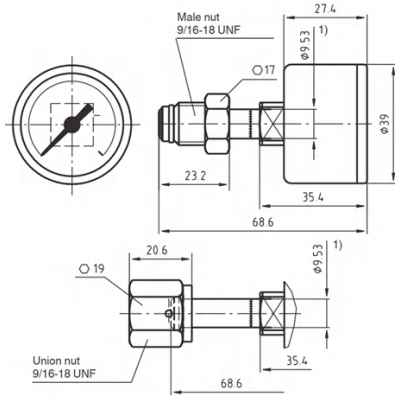


Standard Structure: NS 2" (50 mm)–Radial

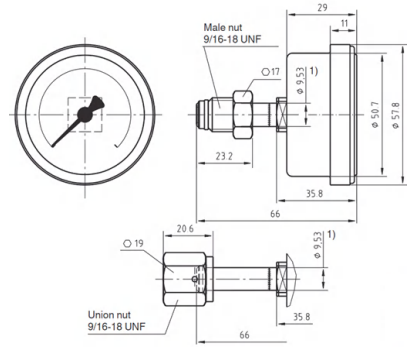


Dimensions are for reference only. Actual product dimensions may vary.

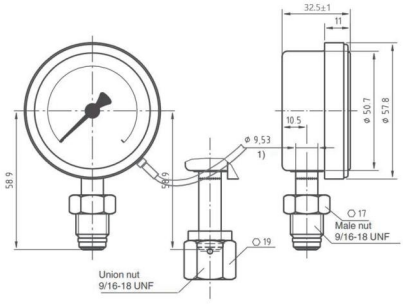
Standard Structure: NS 1½"(40 mm)–Axial



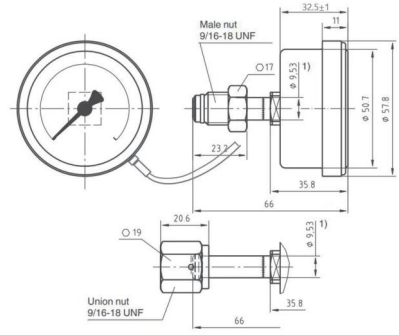
Standard Structure: NS 2"(50 mm)–Axial



Electric Contact Standard Structure: NS 2" (50 mm) – Radial



Electric Contact Standard Structure: NS 2" (50 mm) – Axial



Dial Diameter

100	100mm
63	63mm
50	2"(50mm)
40	½"(40mm)

Surface Treatment

EP	EP Level
BA	BA Level

Mounting Method

L	Radial
B	Axial

Thread

M	Male 9/16-18 UNF
F	Female 9/16-18 UNF
WS11	1.125" W-Seal
CS11	1.125" C-Seal
GT	1/4NPT
YY	Customized

Special Requirement

YY	Customized
YYNO	NO
YYNC	NC
YYNCO	NCO
YYNONC	NO+NC
YYNCNO	NC+NO
YYNONO	NO+NO
YYNCNC	NC+NC

10 | 20 | 30 | 40 | 50

PG800 UHP Pressure Gauge

Selection Example:

Requirement: 0~3000 psi/bar; 2"(50mm); EP Grade; Axial; 9/16-18 UNF Male Thread

Selected Model: PG800-50EPBM 0~3000Psi /bar