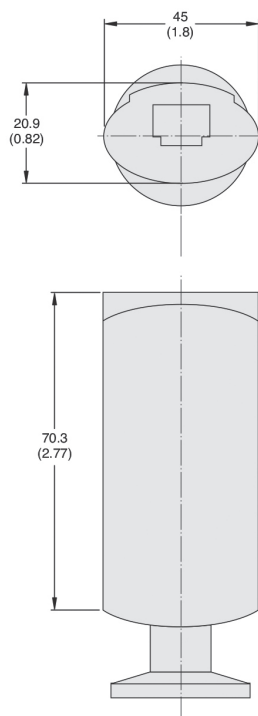


PVG-500/PVG-500S/PVG-502S Series Pirani Gauges



Dimensions: millimeters (inches)

The Agilent PVG-500/500S (tungsten) / 502S (nickel) series of Pirani gauges provide the ultimate combination of state-of-art technology and ruggedness within a compact design. The PVG-500 series utilizes the most advanced digital Pirani technology combined with a stainless steel sensor cell design to meet the various needs of the market.

There is an easy pushbutton ATM and High Vacuum (HV) adjustment. The nickel filament option is an effective solution for corrosive applications.

Features	Benefits
Compact, rugged aluminum housing that mounts in any orientation with a logarithmic signal output	Ease of integration
Stainless steel sensor cell with metal-sealed feedthrough	Rugged design for a wide range of applications
Easy push button ATM and High Vacuum (HV) adjustment	Ease of set-up
Nickel filament option	Solution for corrosive applications
Optional set points	Utilize pressure readings to perform critical operations

Technical Specifications

Measurement range (Air, O ₂ , CO, N ₂)	5 x 10 ⁻⁴ to 1000 mbar (3.75 x 10 ⁻⁴ to 750 Torr)		
Accuracy (N ₂)	% of reading	Units	
	±15%	1 x 10 ⁻³ to 100 mbar (1 x 10 ⁻³ to 75 Torr)	
	±50%	5 x 10 ⁻⁴ to 1 x 10 ⁻³ mbar (3.75 x 10 ⁻⁴ to 1 x 10 ⁻³ Torr)	
	±50%	100 to 1000 mbar (75 to 750 Torr)	
Repeatability (Air)	1 x 10 ⁻³ to 100 mbar (1 x 10 ⁻³ to 75 Torr) – % of reading 2%		
Output signal (measurement signal)	Voltage range 0 to 10.3 V	Measurement range 1.9 to 10.0 V	
Voltage vs. pressure	1.286 V/decade, logarithmic		
Error signal	0 to 0.5 V (filament rupture)		
Minimum loaded impedance	10 kΩ, short-circuit proof		
Response time	80 ms		
Adjustment	One tactile switch for both ATM and HV adjustment		
Identification gauge	27 kΩ, referenced to supply common		
	PVG-500	PVG-500S, PVG-502S	
Setpoint	None	2	
Setting range	None	2 x 10 ⁻³ to 500 mbar (1.5 x 10 ⁻³ to 375 Torr)	
Hysteresis	None	10% above lower threshold % of reading	
Relay contact	None	30 VDC / 0.5 ADC floating	
Switching time	None	<20 ms	
Supply voltage	At gauge 14 to 30 VDC	Ripple ≤1 Vpp	Power consumption ≤1 W
Electrical connection	RJ45/FCC 68, 8 pole female		
Sensor cable	8 poles plus shielding		
Cable length	≤100 meter (330 ft)		
Materials exposed to vacuum	Glass, Ni, NiFe, tungsten (tungsten version)		
Admissible temperature	Operation 5 to 60 °C	Storage –20 to +65 °C	Bakeout at Flange ¹ 80 °C
Mounting orientation	Any		
Weight	80 g		

¹ In horizontal mounting position

Ordering Information

Description	Part Number
PVG-500 PPirani, tungsten filaments, DN 16 ISO-KF	PVG500KF16
PVG-500 Pirani tungsten filament with setpoints, DN 16 ISO-KF	PVG500KF16S
PVG-502 Pirani nickel filament with setpoints, DN 16 ISO-KF - for corrosive applications	PVG502KF16S
PVG-550 Pirani tungsten filament with setpoints, with LCD display (mbar), DN 16 ISO-KF	PVG550KF16SD1
PVG-550 Pirani tungsten filament with setpoints, with LCD display (Torr), DN 16 ISO-KF	PVG550KF16SD2
Accessories	
PVG-500 Replacement sensor (tungsten) - recommended for most applications	PVG500KF16RS
PVG-502 Replacement sensor (nickel) - recommended for corrosive applications	PVG502KF16RS
Power supply, PVG-PCG, International Voltage	AGPS45INT
Active gauge cable for Turbo AG Controllers, TPS Mini/Compact, 3 meters	9699960
Active gauge cable for Turbo AG Controllers, TPS Mini/Compact, 5 meters	9699961
Active gauge cable for AGC/AGD Controllers (FRG700/702, PVG, PCG) - 3 m (9.9 ft)	AGCCBL103
Active gauge cable for AGC/AGD Controllers (FRG700/702, PVG, PCG) - 5 m (16.4 ft)	AGCCBL105
Active gauge cable for AGC/AGD Controllers (FRG700/702, PVG, PCG) - 10 m (33 ft)	AGCCBL110
Active gauge cable for XGS-600 Controllers (FRG700/702, PVG, PCG) - 3ft	R35893003
Active gauge cable for XGS-600 Controllers (FRG700/702, PVG, PCG) - 10ft	R35893010
Active gauge cable for XGS-600 Controllers (FRG700/702, PVG, PCG) - 25ft	R35893025
Active gauge cable for XGS-600 Controllers (FRG700/702, PVG, PCG) - 50ft	R35893050

Contact information

Americas

Agilent Technologies
121 Hartwell Avenue,
Lexington, MA 02421 USA
Toll free: +1 800 882 7426
vpl-customer@agilent.com

Europe, Middle East, Africa, India

Agilent Technologies Italia SpA
Via F.lli Varian 54,
10040 Leini (Torino), Italy
Tel: +39 011 9979 111
Toll free: 00 800 234 234 00
vpt-customer@agilent.com

China

Beijing Office Agilent Technologies (China) Co. Ltd.
No.3, Wang Jing Bei Lu,
Chao Yang District,
Beijing, 100102, China
Toll free: 800 820 6778
Contacts.vacuum@agilent.com

For more information, please contact
your Agilent representative or visit
www.agilent.com/chem/vacuum where
you can chat live with a vacuum expert.



<https://www.agilent.com/en/product/vacuum-technologies/vacuum-measurement/active-gauges/pvg-500-pvg-500s-pvg-502s-series-pirani-gauges>

DE44449.4908564815

This information is subject to change without notice.

© Agilent Technologies, Inc. 2021
Printed in the USA, September 21, 2021
5994-4125EN