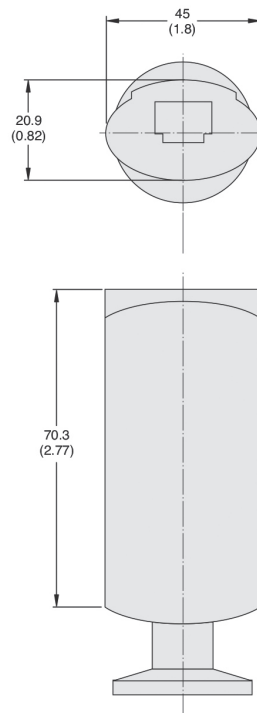


## PVG-500/PVG-500S/PVG-502S Series Pirani Gauges



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 <sub>2</sub> , CO, N <sub>2</sub> )	5 x 10 <sup>-4</sup> to 1000 mbar (3.75 x 10 <sup>-4</sup> to 750 Torr)		
Accuracy (N <sub>2</sub> )	% of reading	Units	
	±15%	1 x 10 <sup>-3</sup> to 100 mbar (1 x 10 <sup>-3</sup> to 75 Torr)	
	±50%	5 x 10 <sup>-4</sup> to 1 x 10 <sup>3</sup> mbar (3.75 x 10 <sup>-4</sup> to 1 x 10 <sup>3</sup> Torr)	
	±50%	100 to 1000 mbar (75 to 750 Torr)	
Repeatability (Air)	1 x 10 <sup>-3</sup> to 100 mbar (1 x 10 <sup>-3</sup> to 75 Torr) – % of reading 62%		
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 <sup>-3</sup> to 500 mbar (1.5 x 10 <sup>-3</sup> 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 <sup>1</sup> 80 °C
Mounting orientation	Any		
Weight	80 g		

<sup>1</sup> 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
<b>Accessories</b>	
Power supply, PVG-PCG, International Voltage	AGPS45INT
PVG-500 Replacement sensor (tungsten) – recommended for most applications	PVG500KF16RS
PVG-502 Replacement sensor (nickel) – recommended for corrosive applications	PVG502KF16RS
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 - for corrosive applications	PVG550KF16SD2
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

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you can chat live with a vacuum expert.



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