

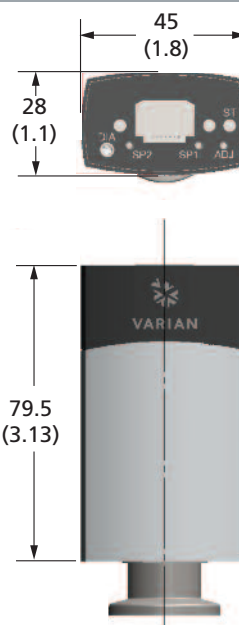
# PCG-750/PCG-752



*Profibus Version*

The Varian PCG-750 series of Pirani Capacitance Diaphragm gauges combines Varian's Pirani and ceramic capacitance diaphragm sensors into a single design that provides gas-type independence with increased accuracy from Atm to  $5 \times 10^{-5}$  mbar ( $3.8 \times 10^{-5}$  torr).

## Outline Drawing



Dimensions: millimeters (inches)

## Applications

- Fore pressure vacuum monitoring
- Safety monitoring in vacuum systems
- General vacuum measurement and control in the medium and rough vacuum range
- Load lock control

## Features

High accuracy and reproducibility at atmosphere  
 Fast atmospheric detection  
 Gas-type independent above 10 mbar  
 Compact, rugged housing that mounts in any orientation with a logarithmic signal output  
 Set point control  
 Exchangeable plug and play sensor  
 Nickel filament option  
 Bright color LCD display option

## Benefits

Reliable atmospheric pressure monitoring  
 Shortens process cycle times  
 Allows safe venting with any gas mixture  
 Ease of integration  
 Utilize pressure readings to perform critical operations  
 Easy to repair with low cost of ownership  
 Solution for corrosive applications  
 Monitor pressure readings easily

NOTICE: This document contains references to Varian. Please note that Varian, Inc. is now part of Agilent Technologies. For more information, go to [www.agilent.com/chem](http://www.agilent.com/chem).

# PCG-750/PCG-752

Technical Specifications					
Measurement range (Air, O <sub>2</sub> , CO, N <sub>2</sub> )	5 x 10 <sup>-5</sup> to 1500 mbar (3.8 x 10 <sup>-5</sup> to 1125 Torr)				
Accuracy	% of reading	Units			
	± 50%	5 x 10 <sup>-5</sup> to 1 x 10 <sup>-3</sup> mbar (3.75 Torr to 1 x 10 <sup>-3</sup> Torr)			
	± 15%	1 x 10 <sup>-3</sup> to 100 mbar (1 x 10 <sup>-3</sup> to 75 Torr)			
	± 5%	100 to 950 mbar (75 to 712.5 Torr)			
	± 2.5%	950 to 1050 mbar (712.5 Torr to 787.5 Torr)			
Repeatability (N <sub>2</sub> )	% of reading	Units			
	± 2.5	1 x 10 <sup>-3</sup> to 1100 mbar (1 x 10 <sup>-3</sup> to 825 Torr)			
Admissible pressure	≤ 5 bar absolute				
Burst pressure	≤ 10 bar absolute				
Admissible temperature	Operation (ambient)	Storage	Bakeout flange		
	10 to 50 °C	-20 to 65 °C	≤ 80 °C		
Supply voltage	15 to 30 VDC @ < 0.8 A				
Output signal	0 to 10.23 V				
Measurement range	0.61 to 10.23 V				
Voltage vs. pressure	1.286 V/decade				
Load impedance	> 10 kΩ				
Setpoint relay (2)	Range (N <sub>2</sub> )	Relay Contact	Hysteresis	Contact Rating	Switching time
	5 x 10 <sup>-5</sup> to 1500 mbar	n.o., potential free	10 % of threshold	Solid state relays ≤ 30 VDC/ ≤ 0.3 ADC	
Interface (digital)	RS232C				
Power connection	FCC, 8 pin				
Materials exposed to vacuum	PCG-750: W, Ni, NiFe, Al <sub>2</sub> O <sub>3</sub> , SnAg, SS, glass PCG752: Ni, NiFe, Al <sub>2</sub> O <sub>3</sub> , SnAg, SS, glass				

Ordering Information	
Description	Part Number
PCG-750 Pirani/CDG combination gauge (tungsten), KF16	PCG750KF16
PCG-750 Pirani/CDG combination gauge (tungsten) with setpoints and display, KF16 (mbar)	PCG750KF16SD1
PCG-750 Pirani/CDG combination gauge (tungsten) with setpoints and display, KF16 (torr)	PCG750KF16SD2
PCG-750 Pirani/CDG combination gauge (tungsten) with setpoints and display, KF16 (pascal)	PCG750KF16SD3
PCG-750 Pirani/CDG combination gauge (tungsten) with setpoints and Profibus. KF16 (mbar)	PCG750KF16SP
PCG-752 Pirani/CDG combination gauge (nickel), KF16	PCG752KF16
PCG-752 Pirani/CDG combination gauge (nickel) with setpoints and display, KF16 (mbar)	PCG752KF16SD1
PCG-752 Pirani/CDG combination gauge (nickel) with setpoints and display, KF16 (torr)	PCG752KF16SD2
PCG-752 Pirani/CDG combination gauge (nickel) with setpoints and display, KF16 (pascal)	PCG752KF16SD3
PCG-752 Pirani/CDG combination gauge (nickel) with setpoints and Profibus, KF16 (mbar)	PCG752KF16SP
<b>Accessories</b>	
PCG-750 (tungsten) Replacement sensor – <i>recommended for most applications</i>	PCG750KF16RS
PCG-752 (nickel) Replacement sensor – <i>recommended for corrosive applications</i>	PCG752KF16RS