

PGE050

Pirani Gauge Enhanced

The INFICON Pirani Gauge Enhanced 050 (PGE050) is the passive version of our active convection enhanced Pirani gauges PGE300 and PGE500. Equipped with the same sensor technology, the PEG050 works in conjunction with our VGC031 passive gauge controller unit to produce the same higher accuracy readings in the measurement range between 100 to 1000 mbar.

With its wider measuring range and higher accuracy, especially at lower pressures, the PGE050 is the first choice when replacing thermocouple gauges in your vacuum system. The rugged gauge and sensor design makes the PGE050 a high value/low cost of ownership choice and qualifies this gauge for many applications where an economical vacuum measurement from low to high vacuum range is required.



ADVANTAGES

- Convection Enhanced Pirani Technology for wide measurement range and higher accuracy near atmosphere
- Gold plated tungsten filament
- Mechanical strength, highly robust and less susceptible to mechanical shock and vibration
- Choice of flange options
- Compliance & standards: CE, RoHS
- Direct drop in replaces Granville-Phillips® Convector® gauge sensor (same plug/ pinouts)
- PGE050 accepts Granville-Phillips® Convector® controllers, cables and modules
- Ideal gauge sensor for upgrading your installed thermocouple gauges

APPLICATIONS

- Fore vacuum pressure measurement
- General vacuum measurement and control from low to the high vacuum range

ORDERING INFORMATION

Type	PGE050 Gauge Tungsten gold-plated
DN 16 ISO-KF	352-500
DN 25 ISO-KF	352-501
DN 40 ISO-KF	352-502
DN 16 CF-R	352-503
DN 40 CF-R	352-504
4 VCR female	352-505
8 VCR female	352-506
1/8" NPT	352-507

SPECIFICATIONS

Type Filament	PGE050 Tungsten gold-plated	
Measurement range	mbar Torr Pa	$1.3 \times 10^{-4} \dots 1333$ $1 \times 10^{-4} \dots 1000$ $1.3 \times 10^{-2} \text{ Pa} \dots 133 \text{ kPa}$
Accuracy (N ₂) ¹⁾	$1.3 \times 10^{-4} \dots 1.3 \times 10^{-3} \text{ mbar}$ $1.3 \times 10^{-3} \dots 530 \text{ mbar}$ % of reading $530 \dots 1333 \text{ mbar}$ % of reading $1 \times 10^{-4} \dots 1 \times 10^{-3} \text{ Torr}$ $1 \times 10^{-3} \dots 400 \text{ Torr}$ % of reading $400 \dots 1000 \text{ Torr}$ % of reading	$0.1 \times 10^{-3} \text{ mbar}$ resolution ± 10 ± 2.5 0.1 mTorr resolution ± 10 ± 2.5
Repeatability (N ₂) ¹⁾	% of reading	± 2
Admissible temperature		
Operation	°C	0 ... +50
Bakeout ²⁾	°C	≤ 150
Materials exposed to vacuum	gold-plated tungsten, 304 & 316 stainless steel, glass, nickel, Teflon [®]	
Internal volume	cm ³ (in ³)	26 (1.589)
Internal surface area	cm ² (in ²)	59.7 (9.25)
Weight	g (oz)	85 (3)

¹⁾ typically

²⁾ non-operating, with electronics cable detached

DIMENSIONS

mm (inch)



Dimension A	mm	(in)
DN 16 ISO-KF	33	(1.3)
DN 25 ISO-KF	33	(1.3)
DN 40 ISO-KF	33	(1.3)
DN 16 CF-R	27.4	(1.08)
DN 40 CF-R	37.3	(1.47)
4 VCR female	47.2	(1.86)
8 VCR female	44.5	(1.75)
1/8" NPT male	25.4	(1)

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