

Pirani Gauge Enhanced

The INFICON Pirani Gauge Enhanced 300 (PGE300) like its bigger brother PGE500 is equipped with the latest digital convection enhanced Pirani technology available on the market. Equipped with the same sensor components as the PGE500, the PGE300 yields the same higher accuracy readings in the measurement range between 100 to 1000 mbar. The PGE300 offers only the critical built-in features that the majority of customers in the vacuum industry are looking for, minimizing costs and maximizing efficiency. This rugged gauge and sensor design, in combination with the factory build in clear readable LED display, 3 selectable analog output signals and a set point relay makes the PGE300 a high value/low cost of ownership choice not only for OEM customers, but all customers. These features qualify this gauge for many applications where an economical vacuum measurement from low to high vacuum range is required. With its wider measuring range and higher accuracy, especially at lower pressures in combination with the economically priced built in features the PGE300 also is the first choice when replacing thermocouple gauges in your vacuum system.



ADVANTAGES

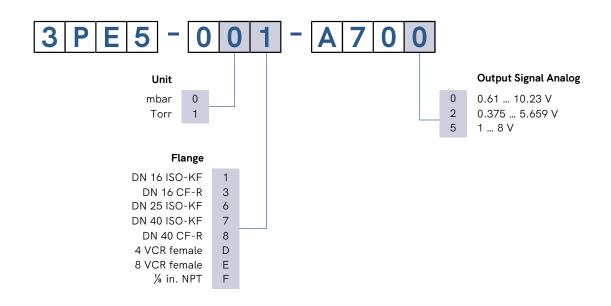
- · Convection Enhanced Pirani Technology for wide measurement range and higher accuracy near atmosphere
- · All-in-One active gauge with built-in display, 1 set point and 3 selectable analog output signals
- Bright digital LED display features a user friendly for calibration and operation
- · Factory pre-set analog output signal or selectable via user interface and user programmable set point relay
- · Gold plated tungsten filament, Platinum filament for enhanced corrosion resistance available on request
- · Mechanical strength, highly robust and less susceptible to mechanical shock and vibration
- Compliance & standards: CE, RoHS
- Direct drop in replaces most Granville-Phillips® Mini-Convectron® modules (GP275) and ideal device for upgrading your installed thermocouple gauges

APPLICATIONS

- · For vacuum pressure measurement
- · General vacuum measurement and control from low to the high vacuum range
- *Granville-Phillips® and Mini-Convectron® are registered trademarks of MKS Instruments, Andover, MA



ORDERING INFORMATION



Power supply for PGE300 8	k PGE500 ¹⁾	352-525
Input power:	V (ac)	100 240
Output power:	V (dc)	+24 @ 2.5 A (60 W)
Cable length:	m (ft)	2 (6)



The IEC 60320 AC power entry receptacle allows use with any user supplied AC mains cord set available worldwide



SPECIFICATIONS

Туре	PGE300	
Magaurament range	Tungsten gold-plated $1.3 \times 10^{-4} \dots 1333 \text{ mbar}$	
Measurement range	1.3 × 10 · 1333 mbar 1 × 10 ⁻⁴ 1000 Torr	
Accuracy (N ₂) ¹⁾	1.3 × 10 ⁻² 133000 Pa	
$1.3 \times 10^{-4} \dots 1.3 \times 10^{-3} \text{ mbar}$	0.1103	
	0.1 × 10 ⁻³ mbar resolution	
1.3 × 10 ⁻³ 530 mbar	±10% of reading	
530 1333 mbar	±2.5	
1 × 10 ⁻⁴ 1 × 10 ⁻³ Torr	0.1 mTorr resolution	
1 × 10 ⁻³ 400 Torr	±10% of reading	
400 1000 Torr	±2.5% of reading	
Repeatability (N ₂) ¹⁾	±2% of reading	
Admissible Temperature		
Operation	0 +40°C	
Storage	-40+70°C	
Bakeout	≤70°C	
Supply voltage	+12 +28 V (dc) ²⁾	
Output signal (analog)		
3PE5-0xx-A700	0.6110.23 V (dc) (log-linear)	
3PE5-0xx-A702	0.375 5.659 V (dc) (non-linear S-curve)	
3PE5-0xx-A705	1 8 V (dc) (log-linear)	
Voltage vs. pressure		
3PE5-0xx-A700	1.286 V / Decade	
3PE5-0xx / -A705	1 V / Decade	
Setpoint relay	1 (single-pole double-throw relay (SPDT))	
	1 A at 30 V (dc) resistive, or V (ac) non-inductive	
Electrical connection	D-Sub, 9-pin, male	
Mounting orientation	horizontal recommended ³⁾	
Materials exposed to vacuum	gold-plated tungsten, 304 & 316 stainless steel, glass, nickel, Teflon®	
Internal volume	26 cm³ (1.589 in.³)	
Internal surface area	59.7 cm ³ (9.25 in. ³)	
Weight	136 g (4.8 oz)	

¹⁾ typically

 $^{^{\}mbox{\scriptsize 2)}}$ 2 W protected against power reversal and transient over-voltages

 $^{^{\}scriptscriptstyle{(3)}}$ $\,$ orientation has no effect on measurements below 1.3 mbar (1 Torr)



DIMENSIONS			
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	25.4	(1)	

mm (in.)





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