

PGE500 DeviceNet

Pirani Gauge Enhanced

The INFICON Pirani Gauge Enhanced (PGE) DeviceNet version is equipped with the latest digital convection enhanced Pirani technology available on the market. Due to the physical properties of convection this type of Pirani offers higher accuracy in the measurement range between 100 to 1000 mbar. The rugged gauge and sensor design in combination with many factory built in features, such as the bright, sharp and clear OLED display with integrated keypad, selectable units of measures and 2 programmable set points makes the PGE500 DeviceNet version a high value/low cost of ownership choice. All these features qualify this gauge for many applications where an economical vacuum measurement from low to high vacuum range is required.

The PGE500 DeviceNet version is a direct drop-in plug-compatible replacement for the DeviceNet version of MKS / Granville-Phillips® Mini-Convector® (so called GP275 Modules). INFICON PGE500 spare sensor heads are also suited to replace Granville-Phillips® sensor heads.

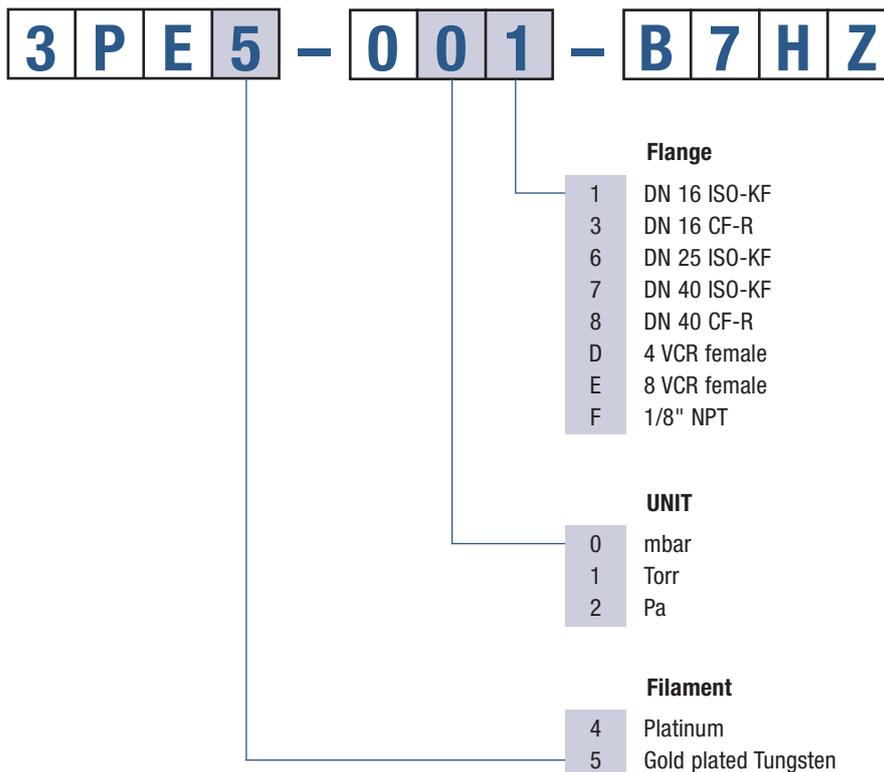


ADVANTAGES

- Convection Enhanced Pirani Technology for wide measurement range and higher accuracy near atmosphere
- All-in-One active gauge with built-in display, 2 set points, and digital DeviceNet interface
- Bright digital OLED display with keypad for simple setup, calibration and operation
- Factory pre-set display units for measure or selectable via keypad
- User programmable set point relays (factory pre-set on request for volume orders)
- Gold plated tungsten filament or platinum filament for corrosive applications
- Mechanical strength, highly robust and less susceptible to mechanical shock and vibration
- Field replaceable spare sensor units
- Choice of flange options
- Compliance & standards: CE, RoHS
- Direct drop-in plug-compatible replacement for the DeviceNet versions of MKS / Granville-Phillips® Mini-Convector® (GP275 Modules)

APPLICATIONS

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



SPARE PARTS

Gold plated Tungsten sensor

PGE500 Spare Sensor KF 16, W, DNet	352-550
PGE500 Spare Sensor KF 25, W, DNet	352-551
PGE500 Spare Sensor KF 40, W, DNet	352-552
PGE500 Spare Sensor 16 CFR, W, DNet	352-553
PGE500 Spare Sensor 40 CFR, W, DNet	352-554
PGE500 Spare Sensor 4 VCR, W, DNet	352-555
PGE500 Spare Sensor 8 VCR, W, DNet	352-556
PGE500 Spare Sensor 1/8" NPT, W, DNet	352-557

Platinum sensor

PGE500 Spare Sensor KF 16, Pt, DNet	352-560
PGE500 Spare Sensor KF 25, Pt, DNet	352-561
PGE500 Spare Sensor KF 40, Pt, DNet	352-562
PGE500 Spare Sensor 16 CFR, Pt, DNet	352-563
PGE500 Spare Sensor 40 CFR, Pt, DNet	352-564
PGE500 Spare Sensor 4 VCR, Pt, DNet	352-565
PGE500 Spare Sensor 8 VCR, Pt, DNet	352-566
PGE500 Spare Sensor 1/8" NPT, Pt, DNet	352-567

These spare sensors only fit on PGE500 DeviceNet version. Not on PGE500 analog / RS485 version.

SPECIFICATIONS

Type		PGE500 DeviceNet
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⁾	$1.3 \times 10^{-4} \dots 1.3 \times 10^{-3} \text{ mbar}$	$0.1 \times 10^{-3} \text{ mbar}$ resolution
	$1.3 \times 10^{-3} \dots 530 \text{ mbar}$ % of reading	±10
	$530 \dots 1333 \text{ mbar}$ % of reading	±2.5
	$1 \times 10^{-4} \dots 1 \times 10^{-3} \text{ Torr}$	0.1 mTorr resolution
	$1 \times 10^{-3} \dots 400 \text{ Torr}$ % of reading	±10
	$400 \dots 1000 \text{ Torr}$ % of reading	±2.5
	$1.3 \times 10^{-2} \dots 1.3 \times 10^{-1} \text{ Pa}$	$0.1 \times 10^{-1} \text{ Pa}$ resolution
	$1.3 \times 10^{-1} \dots 53 \text{ kPa}$ % of reading	±10
	$53 \dots 133 \text{ kPa}$ % of reading	±2.5
Repeatability (N ₂) ¹⁾	% of reading	±2
Admissible temperature		
Operation	°C	0 ... +40
Storage	°C	-40 ... +70
Bakeout (electronics removed)	°C	≤150
Supply voltage	V (dc)	+12 ... +26 ²⁾
Setpoint relay		2 (single-pole double-throw relays (SPDT) 1 A at 30 V (dc) resistive, or V (ac) non-inductive
DeviceNet interface		
Device type		vacuum gauge / pressure gauge device
Adjustable parameters		setpoints, engineering units of measure, vacuum and atmosphere calibration
Messaging		polled I/O and explicit
Baud rates		125K, 250K or 500K (adjustable via rotary switch)
Electrical connection		D-sub, 9-pin male for setpoint relays and 5-pin Micro for power and DeviceNet interface
Materials exposed to vacuum		
3PE4-0xx-B7HZ		platinum, 304 & 316 stainless steel, glass, nickel, Teflon [®]
3PE5-0xx-B7HZ		gold plated tungsten, 304 & 316 stainless steel, glass, nickel, Teflon [®]
Mounting orientation		horizontal recommended ⁴⁾
Internal volume	cm ³ (in ³)	26 (1.589)
Internal surface area	cm ² (in ²)	59.7 (9.25)
Weight	g (oz)	340 (12)

¹⁾ typical

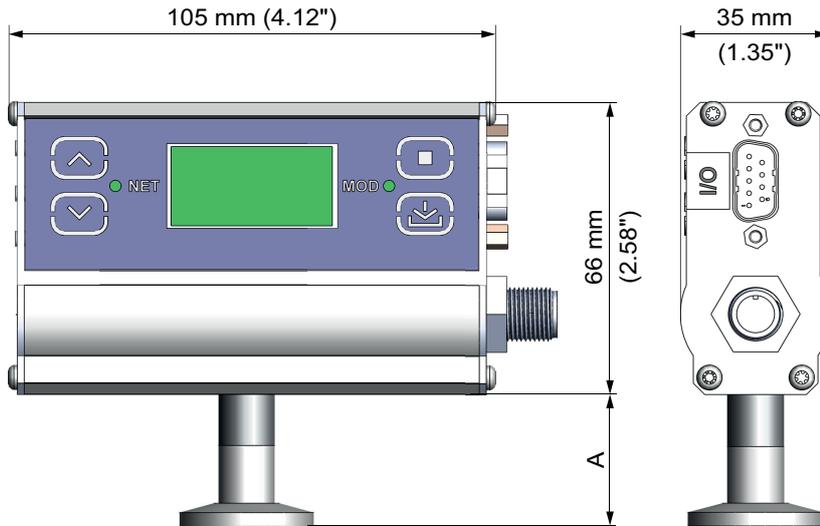
²⁾ 0.22 A, 2.4 W max protected against power reversal and transient over-voltages

³⁾ available on all devices by default on pin 9

⁴⁾ orientation has no effect on measurements below 1.3 mbar (1 Torr)

DIMENSIONS

mm (inch)



Dimension A	mm (in)
DN 16 ISO-KF	29.5 (1.16)
DN 25 ISO-KF	29.5 (1.16)
DN 40 ISO-KF	29.5 (1.16)
DN 16 CF-R	34 (1.34)
DN 40 CF-R	34 (1.34)
4 VCR female	43.7 (1.72)
8 VCR female	40.9 (1.61)
1/8" NPT	21.8 (0.86)



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Due to our continuing program of product improvements, specifications are subject to change without notice.

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