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-Convectron® (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-Convectron® (GP275 Modules)

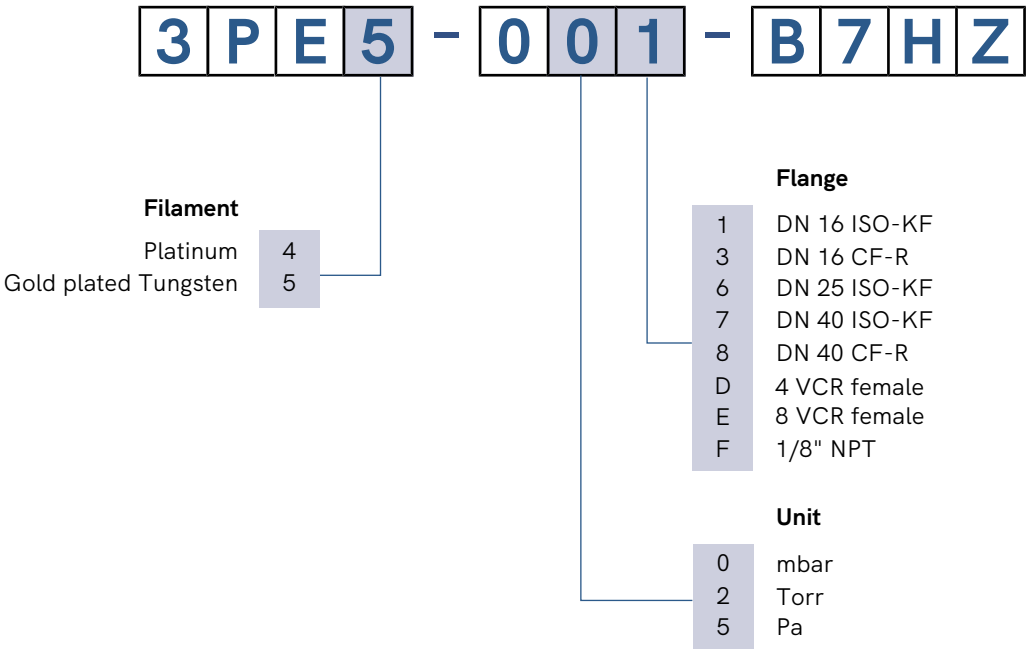
APPLICATIONS

- 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*

PGE500 DeviceNet™

ORDERING INFORMATION



Replacement sensor	PGE500 DeviceNet
Gold plated Tungsten sensor	
DN 16 ISO-KF, W	352-550
DN 25 ISO-KF, W	352-551
DN 40 ISO-KF, W	352-552
DN 16 CF-R, W	352-553
DN 40 CF-R, W	352-554
4 VCR female, W	352-555
8 VCR female, W	352-556
1/8" NPT, W	352-557
Platinum sensor	
DN 16 ISO-KF, Pt	352-560
DN 25 ISO-KF, Pt	352-561
DN 40 ISO-KF, Pt	352-562
DN 16 CF-R, Pt	352-563
DN 40 CF-R, Pt	352-564
4 VCR female, Pt	352-565
8 VCR female, Pt	352-566
1/8" NPT, Pt	352-567

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

PGE500 DeviceNet™

Power supply for PGE300 & 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)

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

PGE500 DeviceNet™

SPECIFICATIONS

Type	PGE500 DeviceNet
Measurement range	1.3×10^{-4} … 1333 mbar 1×10^{-4} … 1000 Torr 1.3×10^{-2} … 133000 Pa
Accuracy (N_2)[1]	
1.3×10^{-4} … 1.3×10^{-3} mbar	0.1×10^{-3} mbar resolution
1.3×10^{-3} … 530 mbar	±10% of reading
530 … 1333 mbar	±2.5% of reading
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
530 … 1333 mbar 1.3×10^{-2} … 1.3×10^{-1} Pa	0.1×10^{-1} mbar resolution ±10% of reading
1.3×10^{-1} … 53 kPa	±2.5% of reading
53 … 133 kPa	
Repeatability (N_2)[1]	±2% of reading
Admissible temperature	
Operation	0 … +40°C
Storage	-40 …+70°C
Bakeout (electronics removed)	≤150°C
Supply voltage	+12 … +26 V (dc)[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	setpoint, 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
Mounting orientation	horizontal recommended [3]
Materials exposed to vacuum	platinum, 304 & 316 stainless steel, glass, nickel, Teflon®
3PE**4**-0xx-B7HZ	gold plated tungston, 304 & 316 stainless steel, glass, nickel, Teflon®
3PE**5**-0xx-B7HZ	
Internal volume	26 cm^3 (1.589 $in.^3$)
Internal surface area	59.7 cm^3 (9.25 $in.^3$)
Weight	340 g (12 oz)

1) typically

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

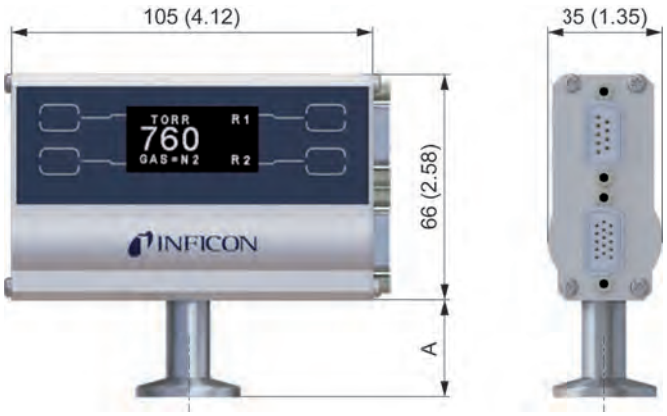
3) orientation has no effect on measurements below 1.3 mbar (1 Torr)

PGE500 DeviceNet™

DIMENSIONS

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)

mm (in.)



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