

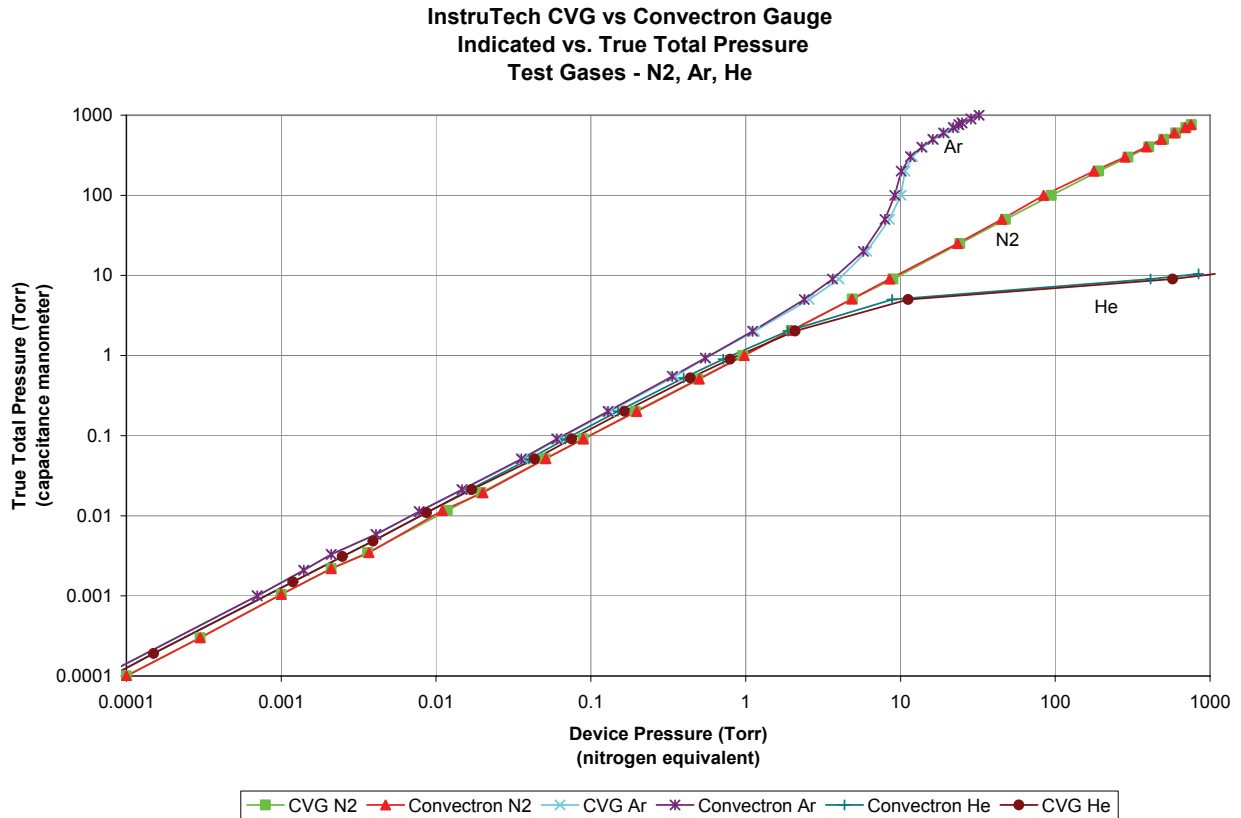
Application Note: Comparison of Module Specifications - InstruTech CVM-201 "Super Bee" and Brooks Automation/Granville-Phillips 275 Mini-Convectron®

	InstruTech CVM-201 "Super Bee"	GP 275 Mini-Convectron®
measurement range (signal)	1x10 ⁻⁴ to 1000 Torr 1x10 ⁻⁴ to 1333 mbar 1x10 ⁻² Pa to 133 kPa	1x10 ⁻⁴ to 1000 Torr 1x10 ⁻⁴ to 1300 mbar 1x10 ⁻² Pa to 130 kPa
display	> LCD - standard on all units > 4 digits from 1100 Torr to 1000 Torr 3 digits from 999 Torr to 10.0 mTorr 2 digits from 9.9 to 1.0 mTorr > user-selectable Torr, mbar, or Pa.	> LED - optional on some models. > 3 digits from 100 mTorr to 999 Torr, 2 digits from 10 to 99 mTorr, 1 digit from 1 to 9 mTorr. > fixed display in Torr, mbar, or Pa.
materials exposed to gases	gold-plated tungsten, 304 & 316 stainless steel, glass, nickel, Teflon	gold-plated tungsten, 304 stainless steel, glass, Kovar, alumina, NiFe alloy, polyimide
internal volume	26 cm ³ (1.589 in ³)	35 cm ³ (214 in ³)
internal surface area	59.7 cm ² (9.25 in ²)	218.8 cm ² (33.92 in ²)
weight	340 gm (12 oz)	340 gm (12 oz)
housing	aluminum extrusion 105 x 66 x 35mm (4.12 x 2.58 x 1.35 inches)	aluminum extrusion 110 x 64 x 41mm (4.3 x 2.5 x 1.6 inches)
fittings/flanges	1/8"NPT-1/2" tubulation, 4VCR, 8VCR, Mini-Conflat® (NW16CF), 2-3/4" Conflat® (NW35CF), KF16, KF25, KF40	1/8"NPT-1/2" tubulation, 4VCR, 8VCR, Mini-Conflat® (NW16CF), 2-3/4" Conflat® (NW35CF), KF16, KF25, KF40
operating temperature	0 to +40 °C	0 to +40 °C
storage temperature	-40 to +70 °C	-40 to +70 °C
bakeout temperature	150 °C (gauge only - electronics removed)	150 °C (gauge only - electronics removed)
humidity	0 to 95% RH non-condensing	0 to 95% RH non-condensing
mounting position	horizontal	horizontal
analog output(s)	1) non-linear analog - standard S-curve 0.375 to 5.659 Vdc 2) linear analog - standard 0 to 10 Vdc for 0 to 1 Torr - user scalable 3) log-linear analog - standard 1 to 8 Vdc, 1V/decade	1) non-linear analog - standard S-curve 0.375 to 5.659 Vdc 2) linear analog - optional 0 to 10 Vdc for 0 to 1 Torr - fixed
digital interface	RS485/232 - standard	RS485, DeviceNet - optional
input power	11 to 30 Vdc, protected against power reversal, transients, and over-voltages	11.5 to 26.5 Vdc, protected against power reversal, transients, and over-voltages
trippoint relays	2 - standard on all units	0, 1, or 2 - optional on some units
configuration	single-pole double-throw relays (SPDT)	single-pole double-throw relays (SPDT)
contact rating	1A at 30 Vdc resistive, or ac non-inductive	1A at 30 Vdc resistive, or ac non-inductive
trippoint range	1x10 ⁻³ to 1000 Torr	1x10 ⁻³ to 1000 Torr
adjustment	a) adjust value by panel pushbutton up/down keys and display b) adjust value, direction, and hysteresis by software/interface	a) adjust value by recessed potentiometer b) adjust value, direction, and hysteresis by software/interface
connectors	1) 9-pin D male 2) 15-pin high-density D male	Six different pinout configurations of 9-pin or 15-pin D connectors.
RF/EMI protection	CE compliant	CE compliant

Mini-Convectron® specifications are from Brooks Automation/Granville-Phillips data sheet DS GP275833 5/02

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The chart below shows calibration curves for three common gases, for InstruTech CVG and Brooks Automation/Granville-Phillips Convector[®] gauges, compared to a capacitance manometer (true total pressure).



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