

F8 Convection Ionization Gauges

InstruTech - CVG Worker Bee™ Convection Vacuum Gauge

Low cost drop-in replacement for the best selling Convectron® Gauge

The Convectron® gauge has been in widespread use worldwide, largely unchanged since Granville-Phillips introduced it in 1975. InstruTech has completely redesigned its new gauge for significantly lower cost, without sacrificing high quality and performance.

Features

- Low cost plug-compatible drop-in replacement gauge for Convectron® gauges and Mini-Convectron® modules.
- Performance identical to existing Convectron® gauges.
- Wide Measuring Range 10⁻⁴ Torr to 1000 torr.
- Rugged robust design withstands more abuse and harsh environments.
- Significant savings for you - no changes to your system - use your existing Convectron® controllers, cables, and modules.
- No changes to your process. A single vacuum gauge can monitor your vacuum system pumpdown and venting. Helps keep your process up and running, even if it's not a laboratory environment.

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The InstruTech CVG convection vacuum gauge provides equivalent or better performance throughout the range of 10⁻⁴ to 1000 torr.

Only the same, equivalent or better materials are used in the vacuum environment. Clean assembly procedures assure compatibility with today's contamination-sensitive processes. All tooling that comes in contact with vacuum surfaces of the InstruTech gauge are of very low vapor pressure materials. The internal surface area of the gauge has been decreased by almost 75%, improving the response time of the gauge to lower pressures. Temperature compensation has been moved to the external environment to improve response time to temperature changes.

Lower cost without sacrificing quality

InstruTech has incorporated numerous changes that help reduce cost and improve performance. By moving temperature compensation out of the vacuum environment, costs have been significantly reduced and performance improved, over the range of 10 to 50°C.

The gauge is bakeable to 150°C and is shielded against RF interference. A fine mesh screen in the gauge port helps prevent particulate contamination from entering the gauge. A new attachment means for the sensor is far more reproducible and easier to make. These and other improvements add up to significant cost savings to you.

Directly compatible with existing Convectron® controllers, cables, and modules

The InstruTech CVG gauge will directly replace standard Helix/GP Convectron® gauges. It is directly interchangeable with your existing Convectron® controllers, cables, and Mini-Convectron® modules, so you don't need to change any wiring, hardware, or process recipes.



Specifications	
Measurement range	1x10 ⁻⁴ to 1000 torr 1x10 ⁻⁴ to 1333 mbar 1x10 ⁻² Pa to 133 kPa
Resolution	1x10 ⁻⁴ torr, 1x10 ⁻⁴ mbar, 1x10 ⁻² Pa
Temperature - operating	0°C to 50°C
Temperature - bakeout	150°C maximum, non-operating with cable or electronics removed
Humidity - operating	0 to 95% RH non-condensing
Mounting Orientation	Horizontal recommended
Materials exposed to vacuum	Gold plated tungsten, 304 & 316 stainless steel, glass, nickel, PTFE
Internal Volume	26 cm ³ (1.589in ³)
Internal Surface Area	59.7 cm ³ (9.25 in ³)
Leak Integrity	<1x10 ⁻⁹ atm cc/sec He
Weight	85 gm (3 oz.)
RF/EMI protection	CE compliant

InstruTech Part No.	Description	Convectron Part No.	Price
Standard Gauges			
CVG101GA	1/8" NPT - 1/2" tube	275071	
CVG101GB	NW16KF	275203	
CVG101GC	NW25KF	275196	
CVG101GD	NW40KF	275316	
CVG101GE	1-1/3" Mini-CF/NW16CF Mini-Conflat	275256	
CVG101GF	2-3/4" CF/NW35CF Conflat	275238	
CVG101GG	1/4" Cajon 4VCR female	275185	
CVG101GH	1/2" Cajon 8VCR female	275282	
Gauges for Mini-Convectron Modules			
CVG102GA	1/8"NPT - 1/2" tube	275810	
CVG102GB	NW16KF	275816	
CVG102GC	NW25KF	275817	
CVG102GD	NW40KF	275818	
CVG102GE	1-1/3" Mini-CF/NW16CF Mini-Conflat	275813	
CVG102GF	2-3/4" CF/NW35CF Conflat	275814	
CVG102GG	1/4" cajon 4VCR female	275811	
CVG102GH	1/2" Cajon 8VCR female	275864	