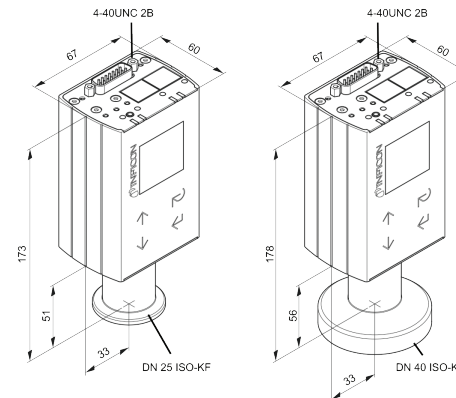


TRIGON™ VACUUM GAUGES

SPECIFICATIONS		BAG552	BPG552	BCG552
Sensor technology		Bayard-Alpert	Bayard-Alpert + Pirani	Bayard-Alpert + Pirani + CDG + ATM sensor
Measuring range:		5 x 10 ⁻¹⁰ ... 2 x 10 ⁻² mbar 3.8 x 10 ⁻¹⁰ ... 1.5 x 10 ⁻² Torr	5 x 10 ⁻¹⁰ ... 1000 mbar 3.8 x 10 ⁻¹⁰ ... 750 Torr	5 x 10 ⁻¹⁰ ... 1500 mbar 3.75 x 10 ⁻¹⁰ ... 1125 Torr
Accuracy (N ₂)	1 x 10 ⁻⁸ ... 2 x 10 ⁻² mbar	±15 % of reading		
	10 ⁻⁸ ... 50 mbar 50 ... 950 mbar 950 ... 1050 mbar		±15% of reading ±50% of reading	
	1 x 10 ⁻⁸ ... 50 mbar 50 ... 950 mbar 950 ... 1050 mbar			±15% of reading ±5% of reading ±2.5% of reading
Repeatability (N ₂)	10 ⁻⁸ ... 10 ⁻² mbar	5% of reading		
Degas emission current	p < 7.2 x 10 ⁻⁶ mbar	Electron bombardment (max. 3 min) ≈16 mA (P _{degas} ≈4 W)		
Electrical connection (analog / RS232)		D-sub, 15-pin, male		
Supply voltage		+20 ... +28V / 0.8 A (dc)		
Output signal analog		0 ... 10 V (dc)		10.13 V (dc)
Voltage vs. pressure		log-linear, 0.75 V/decade		
Materials exposed to vacuum		Yt ² O ³ , Ir, Mo, NiFe, NiCr, stainless steel, glass	Yt ² O ³ , Ir, Mo, Cu, W, NiFe, NiCr, stainless steel, glass	Yt ² O ³ , Ir, Mo, Cu, W, NiFe, NiCr, Al ² O ³ , SnAg, stainless steel, glass
Temperature	Operating	0 ... +50°C		
	Bakeout at flange electronics removed	... + 150°C	... + 150°C	... + 80°C
	Storage	-20 ... +70°C		
Degree of protection		IP40		
Onboard calibration data chip (on spare sensor)		Yes/ removable	Yes/ non-removable	
Setpoints		2 solid state relais		
Display (optional)		OLED + Pad		
Output / Communication	Interface 1	Analog output + RS232C		
	Interface 2	EtherCAT + Analog + RS232C		

DIMENSIONS

BAG552
BPG552
BCG552



INFICON Inspired by visions. Proven by success.

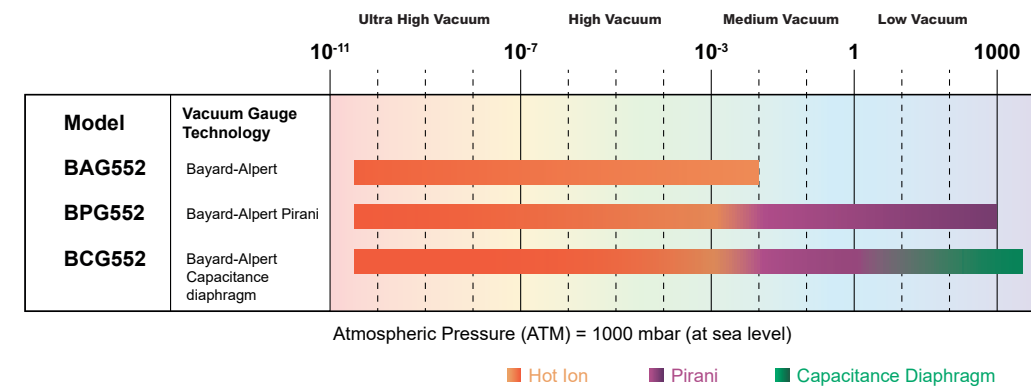
www.inficon.com reachus@inficon.com

Due to our continuing program of product improvements, specifications are subject to change without notice.
itb11e1-a ©2020 INFICON



The Trigon™ Family

MEASUREMENT RANGE



Trigon™ Hot Ion Single & Combi Vacuum Gauges

Perfect longlasting fit from atmosphere to ultrahigh vacuum

INFICON
Inspired by visions. Proven by success.

Perfect longlasting fit from atmosphere to ultra high vacuum

The Trigon™ Hot Ion Single & Combi vacuum gauge family combines the advantages of up to three different technologies in a single compact economic package to measure process and base pressure from 5×10^{-10} to 1500 mbar (3.75×10^{-10} to 1125 Torr). Combining technologies reduces the complexity of installation, setup, and integration, thus reducing cost and valuable tool space.



TYPICAL APPLICATIONS

- Pressure measurement for semiconductor process, transfer, and load lock chambers
- General vacuum measurement and control in the low to ultrahigh vacuum range
- Physical vapor deposition (PVD) in industrial coating

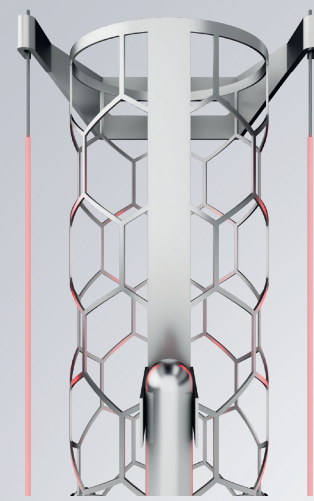
The supported dual filament offers superior accuracy, repeatability and longevity. A broad range of interface options enables easiest system integration. For applications that require stand alone hot ion gauge technology, the Trigon™ family contains the single technology Bayard Alpert Hot Ion Gauge BAG552.



ADVANTAGES AT A GLANCE

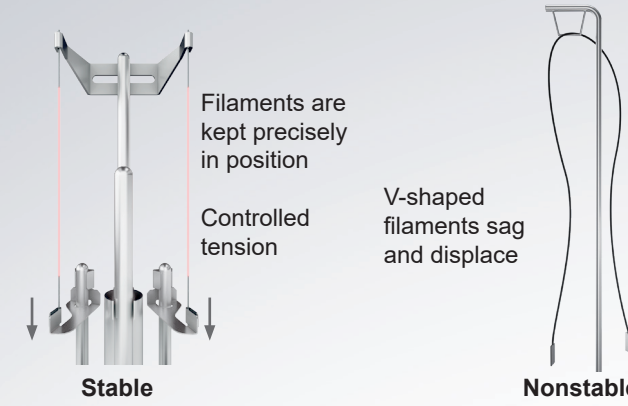
- Up to 13 decades in one gauge
- Various varieties to fit individual demands
- OLEDisplay with touch panel user interface
- Fieldbus/ digital interface options (now in conjunction with display possible)
- Intelligent filament control on/ off for enhanced lifetime
- Enhanced heatability
- Galvanic isolated electronics
- Sliding emission mode
- Additional ATM sensor for differential pressure measurement (BCG552)
- Compact design and small footprint
- User friendly installation and operation

BAYARD-ALPERT SENSOR SYSTEM

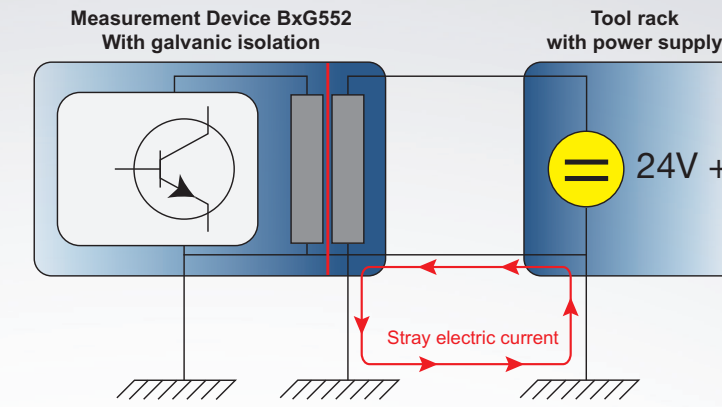


Long lifetime yttrium oxide coated iridium filaments

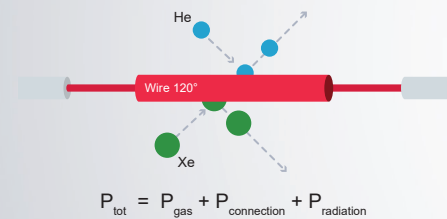
STABILITY AND ACCURACY



GALVANIC ISOLATION

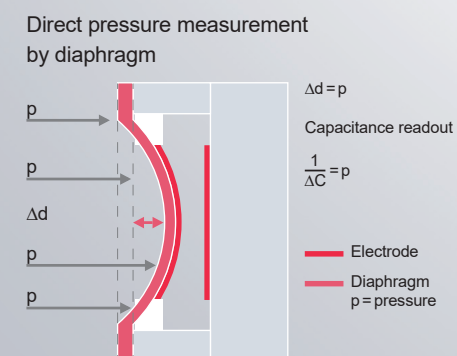


PIRANI PRINCIPLE



The temperature will be conducted through the gas molecules. The temperature loss of the hot filament is a function of the pressure.

CDG WORKING PRINCIPLE

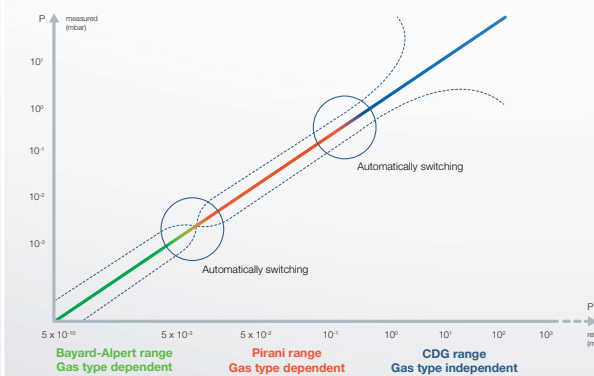


REMOVABLE CALIBRATION DATA CHIP



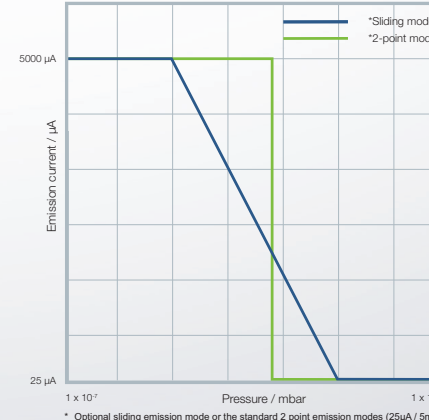
For enhanced heatability (BAG552 + BPG552)

TripleGauge® COMBINATION SENSOR



SLIDING EMISSION MODE

Prevents freezing of the output pressure information
Prevents pressure jumps when switching the emission stream



MANDATORY FEATURES

- 2 filaments for Bayard-Alpert system
- 2 setpoint relays
- Analog output
- Sliding emission mode
- Single-, Dual, Triple Gauge Sensor
- Removable calibration sensor chip (BAG, BPG)
- RS232 serial interface
- Galvanic isolation

OPTIONAL FEATURES

- OLED display
- ATM sensor
- Fieldbus digital interface

ELECTRICAL INTERFACES



DISPLAY & USER INTERFACE

