

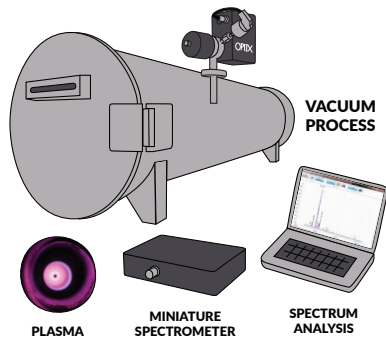


# OPTIX FOR LEAK DETECTION

Gencoa Optix is a compact gas sensor that provides fast measurement of leaks present from a chamber or component part. Any test gas can be used, and the typical range for detection of leaks is  $10^{-5}$  to  $10^{-8}$  mbar l/sec. The sensor also monitors all gases present and the pressure during part evacuation, which can allow early part rejection without the need for a test gas.

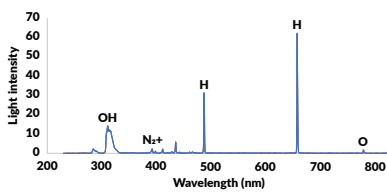
Perfect your process  
[www.gencoa.com](http://www.gencoa.com)

# OPTIX



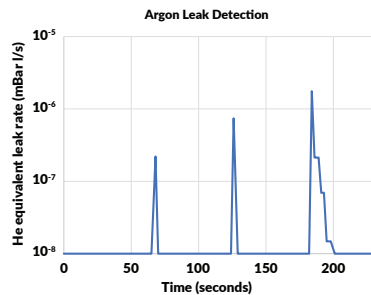
## OPTICAL GAS SENSING

The Optix gas sensing is based upon viewing the light from plasma with a CCD spectrometer. The spectrometer is outside the vacuum and the light signal passes through a vacuum sealed window. This is a very robust method as the detector is in atmosphere and protected from the vacuum environment and the vacuum side plasma generation requires little maintenance.



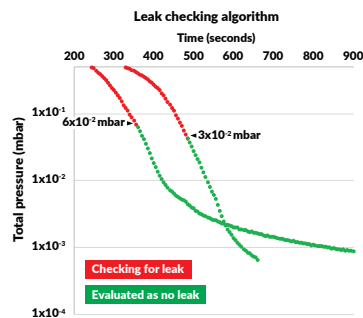
## HELIUM GAS LEAK CHECKING BY QMS SENSOR

Helium is the usual gas used to find small leaks within sealed vessels and is detected by a quadruple mass spectrometer located within the vacuum. This method is highly sensitive and can detect very small leaks below  $10^{-11}$  mbar l/sec. Helium gas is, however, relatively expensive and currently in short supply. Additionally, many products only require a leak tightness in the  $10^{-5}$  to  $10^{-8}$  mbar l/s range.



## HEAVY GAS LEAK CHECKING BY OPTIX SENSOR

The Optix sensor is ideal to detect leaks in the  $10^{-5}$  to  $10^{-8}$  mbar l/s range (helium equivalent), and with other 'heavier' lower cost gases such as argon, nitrogen and hydrogen. Additionally, as the sensor can operate from just 0.5 mbar, it can monitor all gases present during a pump down of a part or vacuum chamber. In some cases Optix can determine the leak tightness without the need for a leak check gas.



- Evacuated component leak detection by N<sub>2</sub> from atmosphere
- Measurement of vacuum quality prior to leak detection
- Detection of leaks in the  $10^{-5}$  to  $10^{-8}$  mbar l/s range
- Leak detection by alternative gases such as Ar, N<sub>2</sub>, H<sub>2</sub>, CO<sub>2</sub>
- Very low maintenance detection method
- Simpler vacuum architecture compared to QMS
- Sensor operates over wider pressure range than QMS (0.5mbar to  $10^{-7}$  mbar)



## EASY TO USE, POWERFUL SOFTWARE

The Optix sensor is 'impossible' to break, and comes equipped with advanced Windows software that provides clear visualisation of the leak check and powerful tools for recording and referencing complete process data. Up to 20 gases can be monitored simultaneously with update speeds as fast as 10ms. A patent pending method to calculate the partial pressures or PPM of gases is key feature of the software.

## FURTHER INFORMATION

Contact: [sales@gencoa.com](mailto:sales@gencoa.com) or visit [www.gencoa.com/optix](http://www.gencoa.com/optix)

