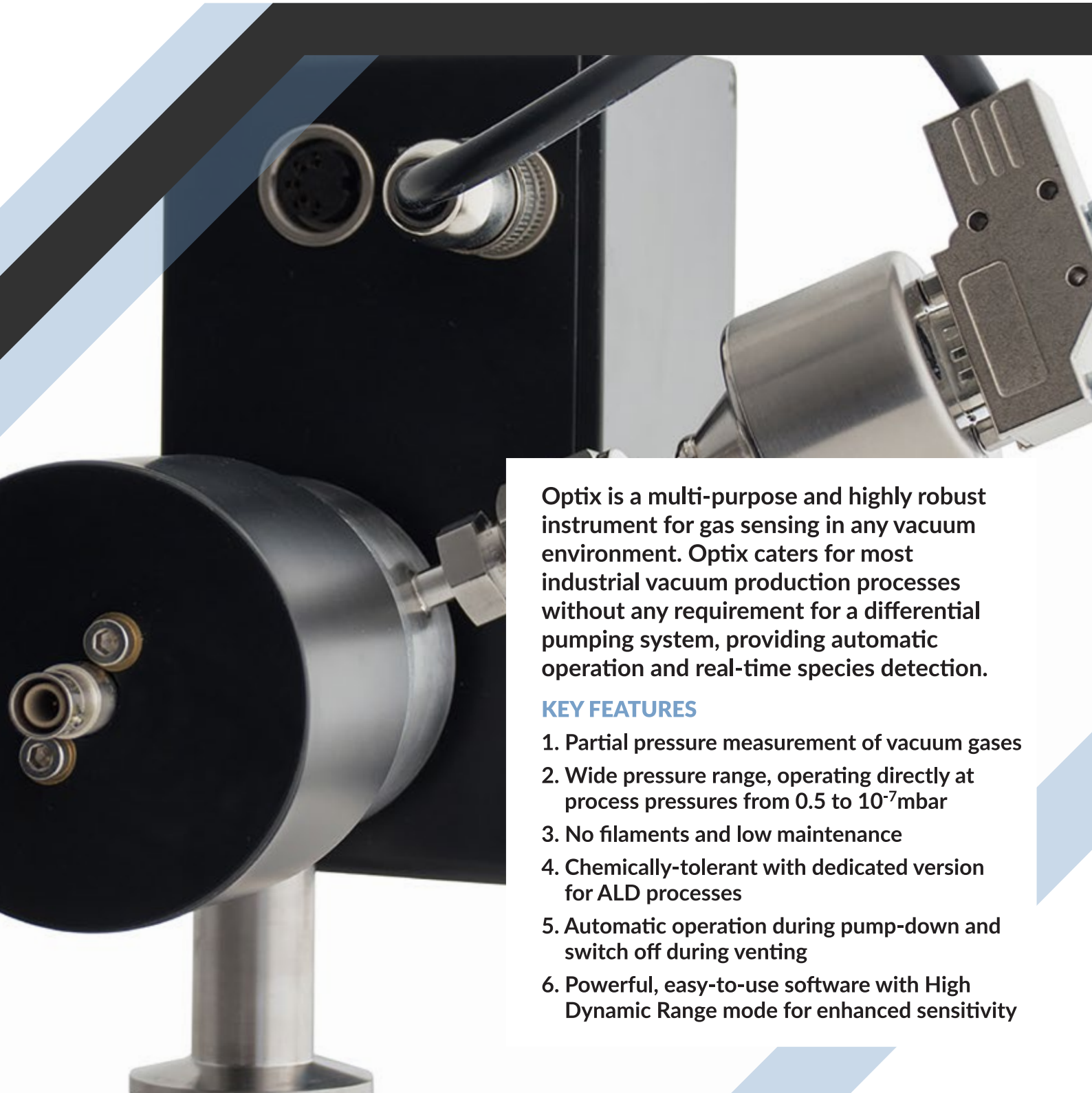# OPTIX
GAS SENSOR

Optix is a multi-purpose and highly robust instrument for gas sensing in any vacuum environment. Optix caters for most industrial vacuum production processes without any requirement for a differential pumping system, providing automatic operation and real-time species detection.
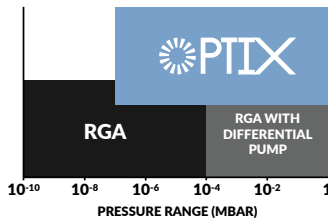
KEY FEATURES

1. Partial pressure measurement of vacuum gases
2. Wide pressure range, operating directly at process pressures from 0.5 to 10^{-7} mbar
3. No filaments and low maintenance
4. Chemically-tolerant with dedicated version for ALD processes
5. Automatic operation during pump-down and switch off during venting
6. Powerful, easy-to-use software with High Dynamic Range mode for enhanced sensitivity

Perfect your process
www.gencoa.com

OPTIX

APPLICATIONS

- Leak detection, vacuum quality, pressure sensing
- PVD, CVD, ALD
- Heat treatment
- Fusion, cannabinoids, gas sampling

Gencoa Optix provides fast and robust analysis of gases within a vacuum, without differential pumping (pump required for atmospheric sampling). Unlike RGA's, the Optix detector is separated from vacuum/chemicals by an optical window that protects against operator damage.

Optix uses a remote plasma spectroscopy concept which generates a small plasma within the sensor head. A built-in high resolution spectrometer analyzes the plasma, automatically interpreting the light spectrum to provide quantitative measurement of the presence and concentration of gas within the vacuum.

The Optix spectral information and sophisticated back-end software benefit a wide range of applications. For very high chemical levels, a special plasma power mode is used to prevent electrode contamination.

SOFTWARE

An advanced Windows user interface provides clear visualisation of the condition of the process and vacuum, and powerful tools for recording and referencing data enable easy identification of process problems.

Up to 20 gases can be monitored simultaneously, with process gas tracking that can be set up with trigger/alarm outputs.

A full, tuneable spectrum view (200-850nm) provides control of integration time for sensitivity adjustments, and automatic gas peak detection works in real-time without the need to export for data identification.

PRESSURE RANGE (MBAR)

RGA — RGA WITH DIFFERENTIAL PUMP
10^{-10} 10^{-8} 10^{-6} 10^{-4} 10^{-2} 1

OPTIX SPECIFICATIONS	
OPTIX SENSOR DIMENSIONS	300mm x 170mm x 95mm
PSU DIMENSIONS	165mm x 105mm x 55mm
SENSOR WEIGHT	2.2kg
VACUUM CONNECTION	KF25 flange
INPUT VOLTAGE	24V
INPUT POWER	20W typical
OUTPUT VOLTAGE	3kV max
OUTPUT CURRENT	1mA max
TOTAL PRESSURE OPERATING RANGE	1×10^{-7} mbar - 0.5 mbar
SENSITIVITY	50ppm air in argon at 1.6×10^{-2} mbar total pressure
SPECTRAL RANGE	200nm - 850nm
UPDATE SPEED	5ms - 10 seconds (depending on sensitivity selected)
COMMUNICATION INTERFACES	OPC, RS232, Ethernet , Digital relay output (x4)
SOFTWARE	Windows 7, 8, 10 and 11 compatible

FURTHER INFORMATION

Contact: sales@gencoa.com or visit
www.gencoa.com/optix

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