



Augent[®] OPG550 Vacuum Gauge

The compact and intelligent solution
for vacuum monitoring

Augent[®] OPG550 Optical Plasma Gauge

The INFICON Augent Optical Plasma Gauge is a compact and intelligent solution for vacuum monitoring. Augent combines two sensor technologies into one compact device for gas type monitoring from 1×10^{-7} to 5 mbar (0.75×10^{-8} to 3.75 Torr) and to measure total pressure from 1×10^{-7} mbar (0.75×10^{-8} Torr) to atmosphere at the same time. Augent OPG550 is protected by an integrated Pirani sensor to switch off plasma above 20 mbar (15 Torr).

TYPICAL APPLICATIONS

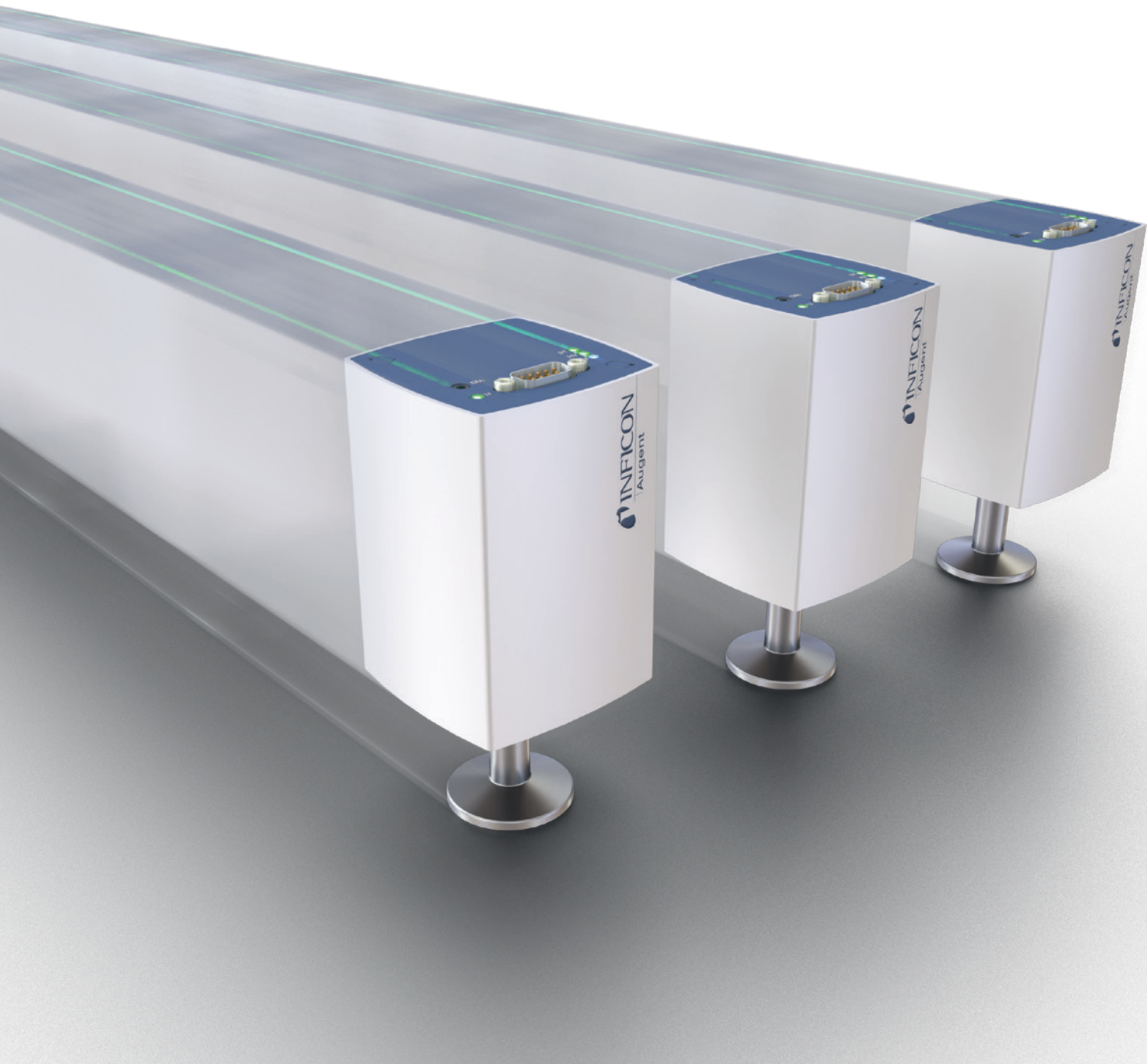
- Chamber leak check with leak gas determination
- Faster RoR (rate for rise) test
- Real time endpoint detection
- Gas type and concentrations monitoring
- Process monitoring

ADVANTAGES AT A GLANCE

- High speed leak detection
- Increase of productivity and yield
- Long life time, air inrush protection
- Withstand process chemistry
- Smart algorithm for easy integration
- Compact design and small footprint
- Reliable and fast start up
- Different interface options

Augent vacuum gauges come with fully integrated digital electronics, providing ultimate flexibility and smart algorithm for easy system integration. Quick and easy maintenance due to available spare sensor cell. Metal sealed sensor cell and material exposed to vacuum withstand process chemistry.





Augent[®] ADVANTAGES AT A GLANCE

Gas analysis and total pressure measurement at once.

- Fast chamber leak check
- Increase in productivity and yield
- Long life time, no filament burns
- Withstand process chemistry
- Smart algorithm for easy integration
- Compact size

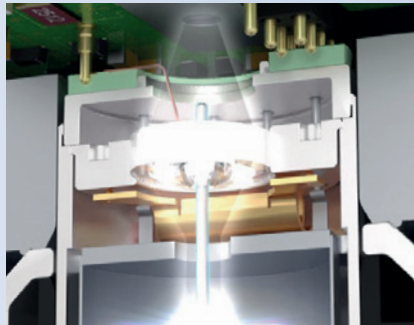
Chamber leak check



OPTICAL MEASUREMENT PRINCIPLE

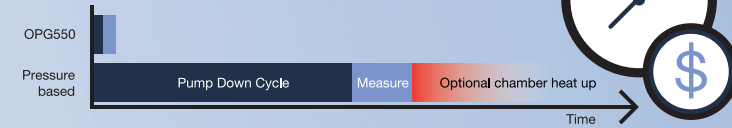
Light emitted from a plasma depends on the gas mixture in the vacuum chamber. A light analyzer digitizes the signal as a function of wavelength and counts. INFICON's smart algorithm fits the optical data to known gas spectra. It identifies the gas species and the composition of the mixture.

LIGHT ANALYZER



EARLY AND ACCURATE FAULT DETECTION SAVES MONEY

- Determination of leak gas
- Distinguish internal and external leaks
- Fast leak check
- Leak check more frequently
- Higher tool up time
- Increase in productivity and yield



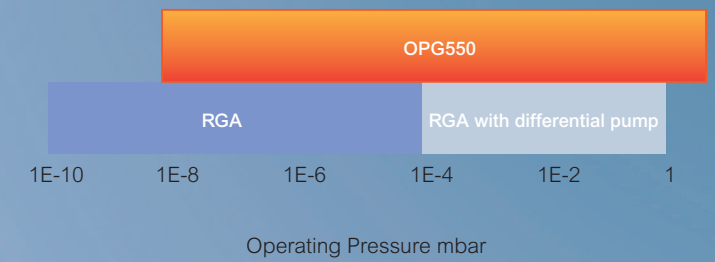
QUICK AND EASY MAINTENANCE

- Spare sensor for field replacement available
- No calibration required after sensor replacement, calibration data stored on replacement sensor
- Cleanable optical window for 1-inch diameter tube



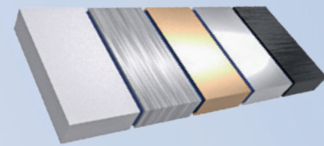
WIDE PRESSURE RANGE FOR GAS TYPE MONITORING

- 1×10^{-7} ... 5 mbar
- No additional pumping



MATERIALS EXPOSED TO VACUUM

- Stainless steel, Molybdenum, Titanium, Ceramic Al_2O_3
- Metal sealed, no FKM
- No internal sensor leaks
- Withstand process chemistry



TRUE TOTAL PRESSURE READING

- No calculation based on partial pressure reading
- Output from cold cathode and Pirani sensors
- Pressure reading up to atmospheric pressure

COMPACT SIZE

- Design freedom and flexibility for chamber design
- Easy integration on existing chambers



OUTSTANDING LIFETIME

- Gauge protection (baffle) prevents exchange of light and particles
- No filament burns out
- Self-protection, automatic plasma switch off

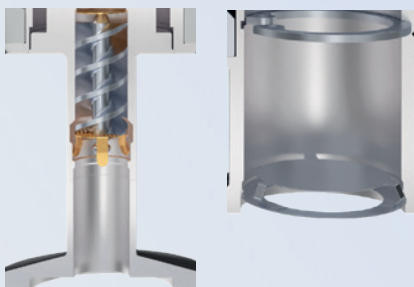
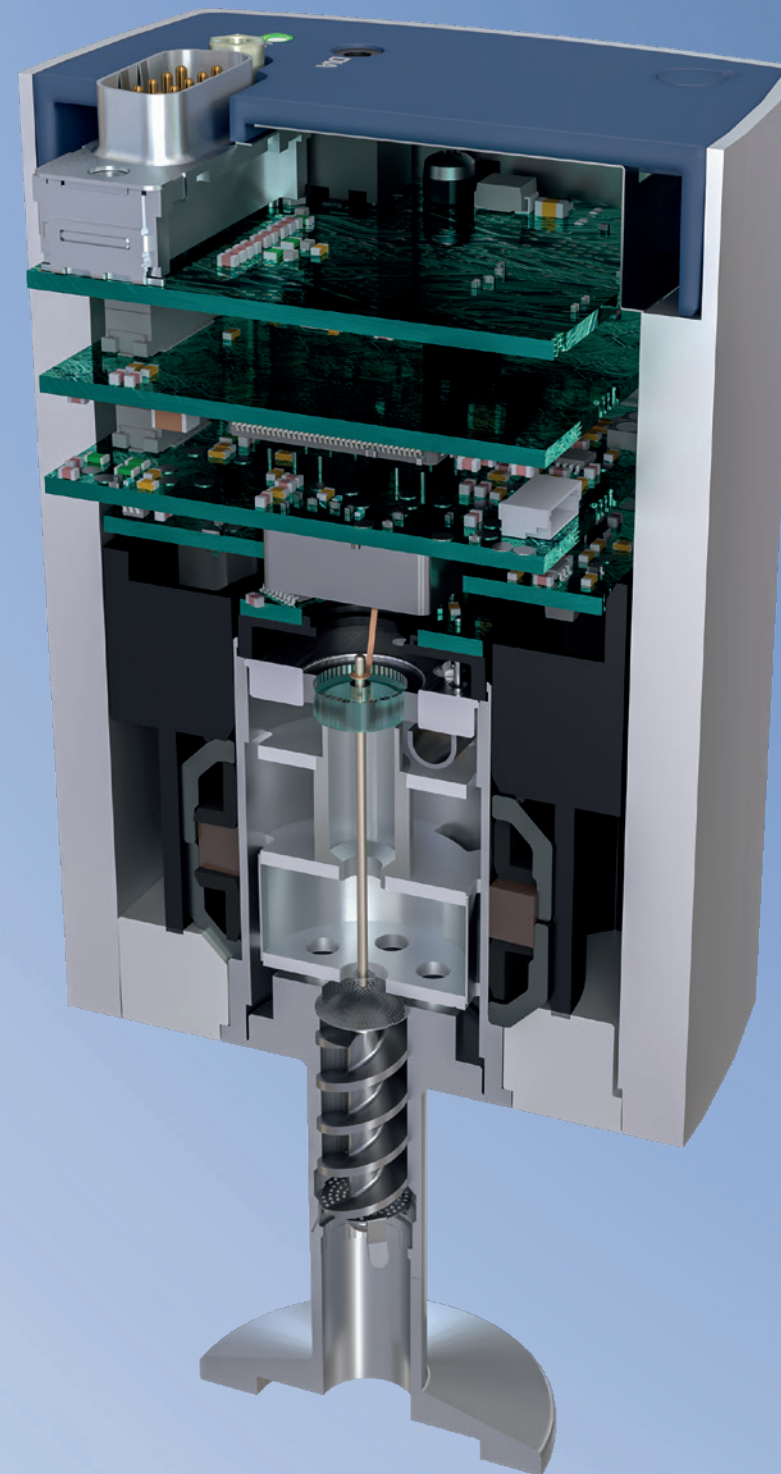


Fig. 1/2-inch tube with spiral baffle

Fig. 1-inch tube with standard baffle

EASY TOOL INTEGRATION

- No additional software needed
- Direct communication with tool control
- Smart algorithm in the sensor
- RS232 and analog output
- EtherCAT and Profinet



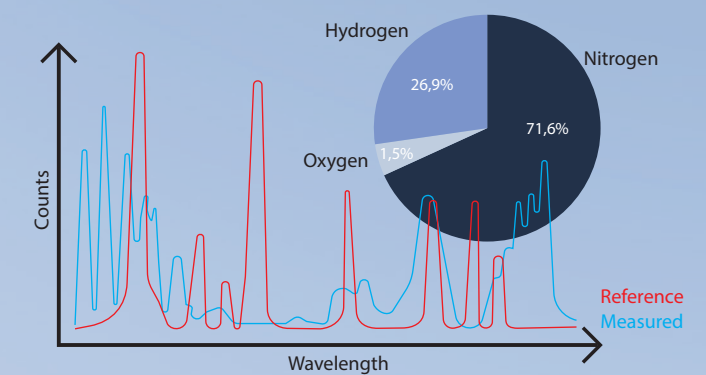
ENVIRONMENT PROTECTION

- Less power consumption <5W compared with RGA >20W
- Weight and size reduced - saves packaging and freight cost
- Environmentally beneficial packaging
- RoHS and WEEE compliant
- Replacement sensor - no need to scrap electronic unit



GOLDEN STATE CHECK

- Higher production yield
- Water concentration monitoring
- Check of process start conditions
- Gas concentration monitoring



Excellent Customer Support is a Commitment

INFICON provides a global network of sales and service centers. These centers are staffed with local service and application experts who can assist you in choosing the best solution for your individual product application and provide fast support if service is needed.



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