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Trace impurity monitoring is of critical importance to carbon dioxide manufacturers and the carbonated beverage industry. Sulfur has been implicated in carbon dioxide contamination. Likewise, nitrogen levels in CO<sub>2</sub> are known to adversely affect food and beverage production. These impurities can impart undesirable taste and odor to products, cause illness, and thereby risk consumer safety, damage brand names and injure company reputations and revenues. Millions of dollars worth of beverages have been pulled as a result of this contamination, not to mention local consumer loyalty losses. Responsibility for these events often falls on the shoulders of the carbon dioxide supplier or distributor.

The R6000 analyzer accurately determines the concentration of nitrogen and/or sulfur in gas streams using PAC's patented Pyro-fluorescence™ UV detection for sulfur analysis and PAC's patented Pyro-chemiluminescence™ detection process for nitrogen detection.



# R6000

## Nitrogen and/or Sulfur Analyzer

- Determine Total Sulfur and/or Total Nitrogen
- Complete combustion of sample allows for fast response
- Eliminates requirement for laboratory analyses of grab samples
- Meets ISBT guideline requirements as well as ASTM D6667

# SPECIFICATIONS

Standard Methods	Standards: ISBT, D6667 (sulfur)
Response time	T90 < 3 minutes
Sensitivity	Sulfur (R6000S): <ul style="list-style-type: none"> <li>• 10 ppb to %</li> <li>• Typical range: 0 - 1 ppm</li> <li>• LDL &lt;10 ppb</li> </ul> Nitrogen (R6000N): <ul style="list-style-type: none"> <li>• 10 ppb to %</li> <li>• Typical range: 0 - 5 ppm</li> <li>• LDL &lt;10 ppb</li> </ul>
Repeatability	<1% full scale
Operating Temperature	10° C to 40° C, non-condensing
Area Classification	Non-hazardous, general purpose,
UTILITY REQUIREMENTS	
Power	115 VAC 50/60Hz or 230 VAC 50/60Hz
Sulfur (R6000S)	Oxygen - 99.975% purity, <5 ppm moisture, regulated to 35 psig Argon - 99.975% purity, <5 ppm moisture, regulated to 35 psig Zero Gas - Sulfur and hydrocarbon free CO <sub>2</sub> , 99.975% purity, <5 ppm moisture, regulated to 35 psig Span Gas - 250 - 750 ppb sulfur in carbonyl sulfide (COS) in CO <sub>2</sub> or Argon, regulated to 35 psig
Nitrogen (R6000N)	Oxygen - 99.975% purity, <5 ppm moisture, regulated to 35 psig Argon - 99.975% purity, <5 ppm moisture, regulated to 35 psig Zero Gas - Nitrogen and hydrocarbon free CO <sub>2</sub> , 99.975% purity, <5 ppm moisture, regulated to 35 psig Span Gas - ppm nitrogen (NO or NH3) in CO <sub>2</sub> , regulated to 35 psig
Sample System	Sample systems available to handle up to 8 streams
Dimensions / Weight	R6000S: Detector: L: 19" X H: 6.8" X W: 19" 25 lbs. Furnace: L: 19" X H: 10.5" X W: 19" 40 lbs.  R6000N: Detector: L: 19" X H: 6.8" X W: 19" 25 lbs. Furnace: L: 19" X H: 10.5" X W: 19" 40 lbs.

Continuing research and development may result in specifications or appearance changes at any time

## ABOUT PAC

PAC develops advanced instrumentation for lab and process applications based on strong **Analytical Expertise** that ensures **Optimal Performance** for our clients. Our analyzers help our clients meet complex industry challenges by providing a low cost of ownership, safe operation, high performance with fast, accurate, and actionable results, high uptime through reliable instrumentation, and compliance with standard methods.

Our solutions are from industry-leading brands: AC Analytical Controls, Advanced Sensors, Alcor, Antek, Herzog, ISL, Cambridge Viscosity, PSPI, and PetroSpec. We are committed to delivering superior and local customer service worldwide with 16 office locations and a network of over 50 distributors. PAC operates as a unit of Roper Technologies, Inc., a diversified technology company and a constituent of S&P 500, Fortune 1000, and Russell 1000 indices.

## HEADQUARTERS

PAC LP | 8824 Fallbrook Drive | Houston, Texas 77064 | USA  
T: +1 800.444.8378 | F: +1 281.580.0719



Contact us for more details.

Visit our website to find the PAC representative closest to you.