PAC | solid partners proven solutions

ACCURA Sampling Device

Fully automated analysis of gaseous and pressurized liquid hydrocarbon streams for MultiTek and Gas Chromatography.

- Highest accuracy and precision through uncompromised sample integrity
- Easy to use
- Maximum operator safety
- Can be used for MultiTek and GC, gas and liquids.
- Repeated injections in one run (MultiTek only)

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ACCURA for GC / MultiTek

SAFE AND ACCURATE SAMPLING OF COMPRESSED LIQUIDS AND GASSES

When analyzing Liquid Pressurized Gases (LPG) with Gas Chromatography or Elemental Analysis, the most challenging task is to maintain sample integrity. Uncontrolled expansion of pressurized or liquefied gases often leads to discrimination: the perceived sample composition changes.

Accura is a temperature and pressure controlled vaporizing injection device that respects sample integrity completely. The resulting data are more accurate and precise, which translates in a narrower product specification and better refining profit.

LPG and hydrocarbon gases are extremely flammable and therefore need to be handled with great care. Accura flags when sample lines are depressurized after analysis, signaling the sample bomb can be disconnected safely.

KEY ADVANTAGES

EXCELLENT PERFORMANCE

Fast and Accurate Analysis

- Highest accuracy and precision. The controlled vaporization ensures uncompromised sample integrity. More accurate data translates into refining profit
- Complete Sulfinert Sample Path
- Repeated injections in one analysis (MultiTek only)

IMPROVED EASE OF USE AND MORE FLEXIBILITY

- Connect Sample, select sample type and start…
- A clear LCD displays all required information on pressures and flows for easy access
- Accura will store relevant information with Timestamp
- Accura can interface to Multitek and 9000 models for Elemental analyses
- Accura can interface to 6850, 7890A and 7890B Gas Chromatographs

MAXIMUM OPERATOR'S SAFETY

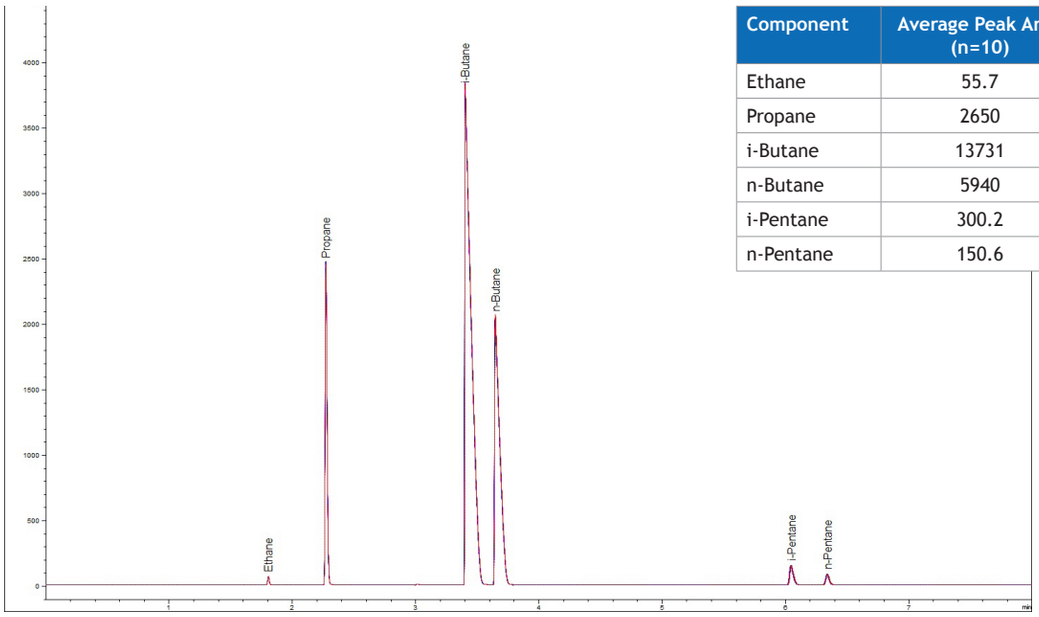
- Accura will flag line pressure to operator, signaling it is safe to remove sample canister. This avoids human error and adds to lab safety

PROVEN COMPLIANCY

- Accura is in line with current going methods using chromatography and elemental analysis for LPG and pressurized gases

GC - ANALYSIS

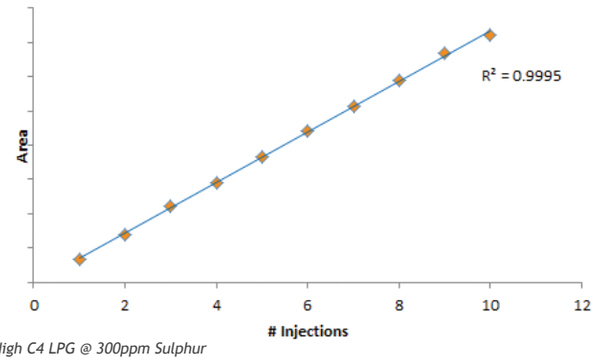
Best repeatability: 10 run overlay (LPG sample)



Component	Average Peak Area (n=10)	s	RSD%
Ethane	55.7	0.3	0.53%
Propane	2650	10.7	0.40%
i-Butane	13731	49	0.36%
n-Butane	5940	21.8	0.37%
i-Pentane	300.2	1.40	0.47%
n-Pentane	150.6	0.74	0.49%

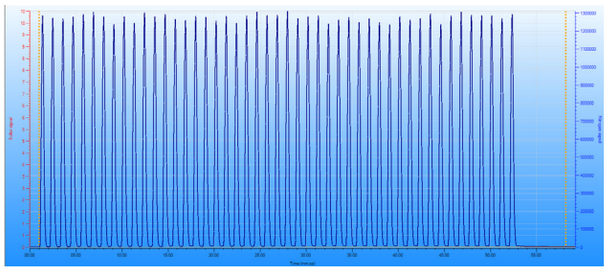
MULTITEK - ANALYSIS

Multi-Injection linearity



High C4 LPG @ 300ppm Sulphur

Multi-Injection repeatability



47 injections
High C3 LPG @ 12ppm Nitrogen

Long term stability

Day	Average Peak Area (n=10)	s	RSD%
Day 1	50914739	773654	1.5%
Day 2	49754403	772204	1.6%
Day 3	50702532	664704	1.3%
Day 4	50543406	847636	1.7%
Day 5	50628519	710996	1.4%
Day 6	52132615	935400	1.8%
Day 7	48600688	623432	1.3%

SPECIFICATIONS

Ordering Information	
36.00.001	Accura, for MultiTek, 120/230V
36.00.002	Accura, for GC, 120/230V
Includes Startup kit with connection materials, 0.5 µm sample inlet filter, Power cable to region, System Testing Documentation and System Operating Manual	
Standard Methods	
GC	ASTM D2163, ASTM D1945, ASTM D1946, ASTM D2504, ASTM D2505, ASTM D2593, ASTM D2712, ASTM D4424, ASTM D5303 ASTM D6228, EN ISO 7941, EN 15984, EN 27941 UOP 539, UOP 373, UOP791 ISO 6974, ISO 6975, ISO 7941, ISO 19739 GPA 2261, GPA 2286, GPA 2186, GPA 2177 IP 405
MultiTek	ASTM D6667, ASTM D7551 UOP 936
Analysis Scope	
Sample Range	LPG, compressed streams, light Hydrocarbon gas mixtures
Min. Sample Pressure	2 bar (LPG), 2 bar (Gaseous)
Max. Sample Pressure	30 bar / 435 psi (relief valve protected)
Max. Vaporizer Temp	150˚C/ 302 F
Performance	
Accuracy	Within uncertainty of Gas cylinder (<5%)
Repeatability	**GC:** <1% RSD Measured as absolute Peak Area Ethane, n-Pentane @ 5-90% concentration **MultiTek:** < 2% RSD for S @ 300 ppm < 2% RSD for N @ 200 ppm Measured as Peak Area Total S or N\ at given concentration, in single injection mode.
Discrimination	<1% (Measured as relative difference in RRF Ethane - Accura vs LSV injection)
Linearity Multi-Injection (Multitek only)	<5% (Measured as max deviation on relative response for n run series against a single injection. >0.99 Correlation on Multi-inject calibration curve.

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

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