









Full Range of DHA Solutions

Detailed Hydrocarbon Analysis of Light Petroleum Streams and Light End in Crude Oils

- Workflow oriented, User-friendly DHA XLNC Software
- (iii) Unique DHA Combi allows the analysis of both Light Petroleum Streams and Light End in Crude
- Easy Instrument Validation through Dedicated Quality Control Samples
- In Compliance with ASTM D5134, D6729, D6730, D6733, D7900, Fast DHA, DHA Front End, IP601, EN 15199-4



COMPLETE RANGE OF DETAILED HYDROCARBON ANALYSIS SOLUTIONS

PAC's AC Analytical Controls offers a full range of Detailed Hydrocarbon Analyzers (DHA) to determine individual hydrocarbon composition in light hydrocarbon streams, gasoline blending feedstocks and spark ignition engine fuels. Understanding the composition of these hydrocarbon streams is essential for the refining industry. DHA helps optimizing production, meet regulatory requirements and enhance profitability.

The AC DHA analyzers comply with leading standard test methods. For analysis of light petroleum streams, analyzer solutions are available following ASTM D5134, D6729, D6730, D6733. Additionally, PAC offers a Fast DHA application to determine the individual components in gasoline blending feedstocks within 28 minutes.

Unique DHA Combi enhances sample scope

The product range also includes a DHA Front End to characterize light hydrocarbons in stabilized crude oil according ASTM D7900, IP 601 and EN 15199-4. This application can also be provided as DHA Combi, where the Front End application is combined with a standard method in one solution. PAC pioneered and developed the innovative method and software to merge the DHA Front End analysis data with High Temperature SimDis results according to IP 545, EN 15199-3 and ASTM D7169, greatly improving accuracy.

AC8612™ provides superior analysis performance

The patented AC8612 application, based on thermodynamic modelling of GC analysis results, provides a complete D86 result in just 8 minutes. AC8612 can analyze naphtha and gasoline samples in D86 groups 0, 1 and 2. It reports distillation curves which correlate perfectly to the physical distillation results, with improved accuracy, speed, safety and automation. In this new version of DHA software, this patented calculation is available in all modes.

USER-FRIENDLY DHA XLNC SOFTWARE FOR RELIABLE AND REPEATABLE PERFORMANCE

Easy Operation for Accurate Analysis

- Fully configurable results processing
- Intelligent peak identification
- Co-elution handling with option to set ratio's
- Work-flow oriented, intuitive interface
- One-click access to results
- Drag-and-drop identification and smart filters
- Reference graph for each product
- Hydrocarbon group-type filtering
- Flexible reporting and LIMS transfer of results

Report configuration → 🙀 🖹 🖊 Isomerate Available sections: Selected sections Analysis details BP distribution graph BP vs. Concentration BP vs. Concentration - Values of Interest Components BP vs. Cornect. Chromatogram Components Concentration vs. BP Concentration vs. BP - Values of Interest Concentration Concentration Concentration Group types Concentration unit: -Mass (%) Concentration vs. BP - Values of Interest D86 - BP vs. Concentration D86 - BP vs. Concentration - Values of Interest D86 - Concentration vs. BP D86 - Concentration vs. BP - Values of Interest D86 - General D86 - General > Concentration unit: -Volume (%) D86 - Concentration vs. BF Calculation mode: Group types Index Calibration Evaporated -Evaporated Temperature unit: -Celsius Number of header columns: 1 Page break Other calculations

Key Advantages

- Full compliancy to leading standard test methods, including performance calculations
- AC FAST DHA runs detailed hydrocarbon analysis within 28 min
- DHA Front End for more accurate crude oil analysis, with possibility to merge results in SimDis XLNC™
- Patented AC8612 calculation for D86 group 0,1 & 2 available in all modes
- Optimized and re-engineered DHA XLNC Software
 - Work-flow oriented, intuitive interface
 - Multi-language support
 - Independent from Chromatography data systems

INTUITIVE SOFTWARE



INTELLIGENT NEW HARDWARE

NEW AGILENT 8890 GC PLATFORM KEEPS YOU IN CONTROL



The AC DHA analyzer is now available on the new Agilent 8890 GC Platform.

Intelligent capabilities built into the Agilent 8890 GC give you the freedom to work with your GC... not on it. These capabilities can also grow over time as your analytical needs change—so you can keep your lab moving toward a successful future.



Intuitive touch screen interface

This new and intelligent GC platform simplifies life inside the lab by giving you real-time acess to instrument status and information. The home screen provides updates on the system at-a-glance and allows you to customize frequently used setpoints for quick accessibility



Check your lab anytime, from anywhere!

Now you don't have to be in your lab to make sure that things are running smoothly. Mobile access features let you view setup information, troubleshoot problems, pause and start sample runs among other controls!





SPECIFICATIONS

31 ECH ICAHONS								
Ordering Information								
Single Channel Systems	GCG6510.002A/C	DHA FAST SYSTEM ON 8890 GC						
	GCG6510.003A/C		DHA D 6730 SYSTEM ON 8890 GC					
	GCG6510.006A/C		DHA D 6729 SYSTEM ON 8890 GC					
	CCG6510.008A/C		DHA D 6730 COMBI SYSTEM ON 7890 GC					
	CCG6510.010A/C		DHA FAST COMBI SYSTEM ON 7890 GC					
	CCG6510.013A/C		DHA D 6729 COMBI SYSTEM ON 7890 GC					
	GCG6510.014A/C		DHA D 6733 SYSTEM ON 8890 GC					
	CCG6510.015A/C		DHA D 6733 COMBI SYSTEM ON 7890 GC					
	CCG6512.002A/C		DHA FE SYSTEM ON 7890 GC					
	GCG6510.016A/C		DHA D 5134 SYSTEM ON 8890 GC					
	GCG2120A A/C	AC 8612 SYSTEM ON 8890 GC						
Additional Channels*	GCG6530.002	ADDITIONAL FAST DHA CHANNEL ON 8890 GC						
* Allows for additional channel only when first channel is also AC DHA. Additional channel not	GCG6530.003		ADDITIONAL DHA D6730 CHANNEL ON 8890 GC					
	GCG6530.006		ADDITIONAL DHA D6729 CHANNEL ON 8890 GC					
	GCG6530.014		ADDITIONAL DHA D6733 CHANNEL ON 8890 GC					
possible in DHA Combi	GCG6530.016		ADDITIONAL DHA D5134 CHANNEL ON 8890 GC					
Utilities Requirements								و
Carrier gas	Helium (99.999%), hydrogen (99.999%) for Fast DHA							
Detector gas	Hydrogen (99.999%) and air							
System power	110 - 230 Volts							
Cryogenic oven cooling	Liquid nitrogen or liquid CO ₂							
Standard Methods								aran
Standard Test Methods	Scope	Max FBP (°C)	Conc. Range (%mass)	Max Olefin Content	Column Length	Run time (min)	Separation Comments	ications or appe
ASTM D6729	Spark ignition engine fuels oxygenate blends	225°	0.01-30	25	100	140	No separation of vital oxygenates and toluene	in coori
ASTM D6730	Spark ignition engine fuels oxygenate blends	225°	0.01-30	25	100 + 3	170	Separation is tuned for major components. No 1-methylnaphthalene/tridecane separation	+linoci ve
ASTM D6733	Spark ignition engine fuels oxygenate blends	225°	0.01.15	20	50	150	No separation of benzene, toluene and vital oxygenates for ambient method. Uses ASTM D3606 or D5580 for Benzene/Toluene, ASTM D5599 or D4815 for oxygenates	nomaolovob
ASTM D5134	Virgin naphthas, reformates, and alkylates.	250°	0.01-30	< 2%	50	120	Scope up to C9, Olefin free samples	arch and
Fast DHA	Spark ignition engine fuels oxygenate blends	225°	0.01-30	20	40	28	No separation of vital oxygenates and toluene. The resolution between peaks depends on the individual concentration of the components	otining ross
DHA FE	Stabilized crude oils, straight naphta, reformates, alkylates.	n.a.	0.01-30	20	50	118	Separates up to C9, after C9 SIMDIS is used for data merge	کُ
DUA Combi	Mixed application		Mothed Dependent				Combines DHA EE with D6720 D6720 or D6722	

ABOUT PAC

DHA Combi

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.

Mixed application

HEADQUARTERS

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

Combines DHA FE with D6729, D6730 or D6733



Method Dependent

Contact us for more details.

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