ACCUCHROME SPECIFICATIONS

PERFORMANCE	
Accuracy by component	±0.5%/F.S (range 50) ±1%/F.S (5<range<50) ±2%/F.S(range 5%)
Accuracy by heating value	+/- 0.25 Btu/scf per 1000 Btu/scf
Repeatability	+/- 0.25 Btu/scf per 1000 Btu/scf
Sensitivity	200 ppm
Linearity	+/- 2% F.S.
Response time:	4 to 5 minutes
ENVIRONMENT	
Ambient temperature	-20°C to + 60°C (-4°F to 140°F)
Dimensions	686 mm W x 838 mm H x 318 mm D (27" W x 33" H x 12.5" D)
Weight	Division 1: 54.4 kg (120 lbs) Division 2: 38.6 kg (85 lbs)
UTILITIES	
Power & consumption	24 VDC, 100 watts startup, 50 watts running 90-240 VAC, 50/60 Hz 100 watts startup, 50 watts running
Sample flow	100 cc/min, 1 barg (0.21 SCFH, 15 psig)
Gas requirements	Helium or hydrogen carrier gas 5.5 - 6.9 barg, 20 cc/min (80 - 100 psig, 0.042 scfh)
COMMUNICATIONS	
Digital Outputs	Modbus RS232, Modbus RS485, Modbus TCP/IP
Digital Inputs	2 dry contact, 2 wet contact (12/24 VDC)
Analog Inputs	3 universal inputs, user programmable (RTD, 4-20 mA, transducer)
Analog Outputs	4 x 4-20 mA, user scalable, user selectable loop or self powered
Relays	4 x SPDT relays, 8 amp @250 VAC
APPROVALS & CERTIFICATIONS	
	CSA (C, CUS) Class 1 Division 1, Groups BCD CSA (C, CUS) Class 1 Division 2, Groups BCD

Please note: we work continuously to improve the performance of our products – all specifications are subject to change without notice.

Choose the AccuChrome GC that's Right for Your Specific Application Needs

MODEL	ANALYSIS CONFIGURATION	ADD neo-pentane	ADD H_2S
AccuChrome C6+	Methane, Ethane, Propane, iso-Butane, n-Butane, iso-Pentane, n-Pentane, Hexanes Plus, Nitrogen, Carbon Dioxide	●	●
AccuChrome C6+ Plus Oxygen & Carbon Monoxide	Methane, Ethane, Propane, iso-Butane,n-Butane. iso-Pentane, n-Pentane, Hexanes Plus, Oxygen, Nitrogen, Carbon Dioxide, Carbon Monoxide	●	●
AccuChrome C7+	Methane, Ethane, Propane, iso-Butane, n-Butane, iso-Pentane, n-Pentane, Hexanes. Heptanes Plus, Nitrogen, Carbon Dioxide	●	●
AccuChrome C7+ Plus Oxygen & Carbon Monoxide	Methane, Ethane, Propane, iso-Butane, n-Butane, iso-Pentane, n-Pentane, Hexanes, Heptanes Plus, Oxygen, Nitrogen, Carbon Dioxide, Carbon Monoxide	●	●
AccuChrome for Hydrogen Only	Hydrogen	Not available	Not available

About Galvanic

Galvanic Applied Sciences Inc. solves critical process-analysis and measurement problems for customers worldwide with our full line of rugged, fit-for-purpose gas- and liquid-measurement systems. We engineer all of our systems and components to deliver uncompromising accuracy, reliability, and long-term value to users, even in the most-challenging process environments. That's why multinationals and small companies alike turn to us again and again – they count on our attention to detail, applications know-how, and exacting quality standards. We work with customers to tailor each system to meet their site-specific process requirements and to provide unparalleled support through installation, training, and long-term product maintenance. A private company headquartered in Calgary, AB, Canada, with a facility in Lowell, MA, USA, Galvanic supports a global network of dedicated sales and service engineers, as well as value-added distributors to serve the needs of customers.

GALVANIC
APPLIED SCIENCES

AccuChrome™ GC
Btu & Hydrocarbon Analyzer

BR5201 | June 2015

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Rugged and reliable, the AccuChrome GC analyzer delivers a rapid return on investment

When it comes to gas analysis, the slightest inaccuracy in measurement can have a significant effect on a company's bottom line. So can system downtime. That's why the AccuChrome CG's development team devoted equal attention to optimizing performance in harsh, real-world applications and to simplifying and ruggedizing the design. The result: a highly reliable, low-maintenance analyzer that delivers the utmost in precise measurements and consistent, field-proven performance.

Galvanic's third-generation Btu and hydrocarbon gas chromatograph, the AccuChrome analyzer is designed and built for critical process-monitoring and control applications in the harshest environments. Whether you're performing Btu and constituent analysis of natural gas for custody transfer, process optimization during natural gas fractionation, or 40 CFR 60 Subpart JA flare-gas emissions monitoring for regulatory compliance – you need precise, real-time measurements you can count on. With auto calibration and validation capabilities to enable fully hands-off operation and the utmost in ease-of-operation, consistent, field-proven performance – and value, Galvanic's AccuChrome analyzer can help you optimize your processes for better quality and lower costs.

On rare occasions when there is a problem, it's easy to address right then and there – the design enables ready access to all components, each of which are fully field-serviceable – reducing downtime and the need for costly module replacement.

Flexible, headache-free installation & operation

The AccuChrome GC is custom-configured at the factory to integrate seamlessly into your existing infrastructure. Galvanic's expert support team will calibrate one analyzer or dozens to your exact specifications, mimicking sample conditioning and outputs of your current system, as required.

Retire old analyzers individually as necessary, or start an entire new line in the most cost-effective way possible – Galvanic makes it easy to standardize your training protocols, operating procedures, and service processes at all your facilities worldwide.

Look Inside ... the AccuChrome GC delivers all you need for fast, accurate Btu analysis and remote monitoring

FEATURES

- Accurate analysis with ±0.25 Btu per SCF
- Rugged field-proven construction & full auto calibration & validation capabilities for full stand-alone operation
- Airless heat sink oven & industry-leading, low-maintenance injection valves
- Thermal-conductivity detector will not burn out with loss of carrier gas and can withstand corrosive H_2S
- Designed for easy serviceability throughout
- Multi-stream capability (up to 8 streams)
- High-resolution local display & user-friendly software
- 32 GB expansion storage capacity & complete audit trail of all results
- Standard or customized reports, including location, technician, & comments

Rugged Thermistor-Based Detector

Less susceptible to fouling than micro-machined technology, the AccuChrome GC's thermal-conductivity detector is able to withstand corrosive compounds such as H_2S. *Plus, Galvanic's detector will not burn out on loss of carrier gas!*

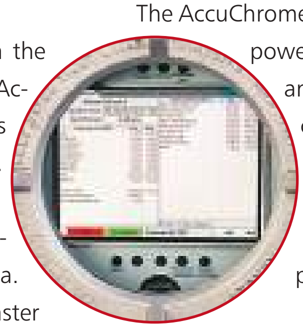
Airless Heat-Sink Oven

An airless heat sink oven maintains a constant temperature of columns, valves, and thermal-conductivity detector for reliable and accurate results. *No external air source required!*

Easy Analyzer Networking & Data Communications

Remote login and troubleshooting is easy via the AccuChrome GC Ethernet connection. The AccuChrome GC will support Ethernet Modbus TCP/IP and up to eight additional serial ports. Select a standard industry-compliant Modbus list, generate customized Modbus lists, or create and access multiple Modbus lists via Scada. You can operate the serial port as either master or slave. The Ethernet port can support up to 16 masters.

Intuitive Operator Interface



The AccuChrome GC Windows® software provides a powerful tool for operation, diagnostics and data handling. View and save chromatograms and analysis results, review or modify analysis settings, set up networking, generate reports, and control several other parameters.

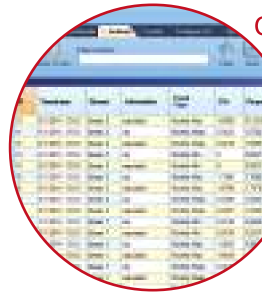
Auto Calibration & Validation

Calibration and validation is simple on the AccuChrome GC system. Auto validation lets you analyze the calibration standard without adjusting response factors or retention times. The AccuChrome GC supports two calibration standards for enhanced measurement of streams with widely varying hydrocarbon concentrations.

Micro-Packed Columns

Galvanic manufactures its columns in house to assure the utmost in quality and consistency. This translates into results you can count on for the lifetime of the chromatograph.

On-Board Data Archiving



The AccuChrome GC has expandable memory capability up to 32 GB to store individual analysis, hourly averages, daily averages and chromatograms. Calibration / validation chromatograms can also be stored for later viewing. A complete audit trail is also incorporated.

Durable Valves

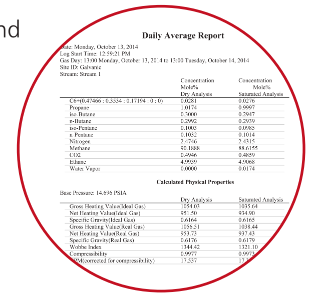
The chromatograph uses industry-leading valves. Tough and long lasting, the valves are rated for up to 1 million injections. Simple mechanical design makes it easy and inexpensive to service.

External-Keypad-Driven Display

An intrinsically safe external keypad provides full menu access for the high-resolution display, enabling at-a-glance status and results. View chromatograms, analysis results, previous calibration information, and alarms on the spot, without opening the enclosure – a feature unique to Galvanic systems.

Fast and Easy Reporting

Produce printable reports of measured and calculated values based on GPA or ISO standards. Customize them to include location, technician name, and comments. The AccuChrome report generator makes it fast and easy.



Selected Industries & Applications

- Chemical
  - 40 CFR 60 Subpart Ja flare gas emissions monitoring
- Natural Gas Pipeline
  - Custody transfer
- Natural Gas Processing
  - 40 CFR 60 Subpart Ja flare gas emissions monitoring
  - Condensate
  - De-butanizer
  - De-ethanizer
  - De-propanizer
  - NG fractionation
  - NG plant inlet/outlet gas
  - Peak shaving
- Oil & Refining / Petrochemical
  - 40 CFR 60 Subpart Ja flare gas emissions monitoring
- Power Generation
  - Gas turbine control (compositional analysis of NG)