

## The Only GC Analyzer That Becomes MORE Accurate When Monitoring Heavier Hydrocarbon Samples



### Extended Analysis

- C<sub>9</sub> – C<sub>12</sub> Hydrocarbon Measurement
- ≤ 50% Hydrogen

### Hazardous Area Certified

- Class I Division 2 and Division 1
- ATEX / IECEx Zone 1

### Low Maintenance

- Valves rated for 1,000,000 Injections
- Quick & Easy Excursion Recovery

### Rapid Response

- 4 Minute Typical Analysis Sequence
- Fast and Sensitive NEMS Detector

### AccuChrome™ GC Introduction

AccuChrome™ is a process analyzer that measures Btu and hydrocarbons in gas-phase samples. AccuChrome™ helps natural gas, refinery, and other industrial operators meet gas quality requirements and optimize process control.

AccuChrome™ uses thermal conductivity detection (TCD) to measure most gas compounds. Monitoring changes in electrical resistance allow AccuChrome™ to calculate the concentration of each parameter.

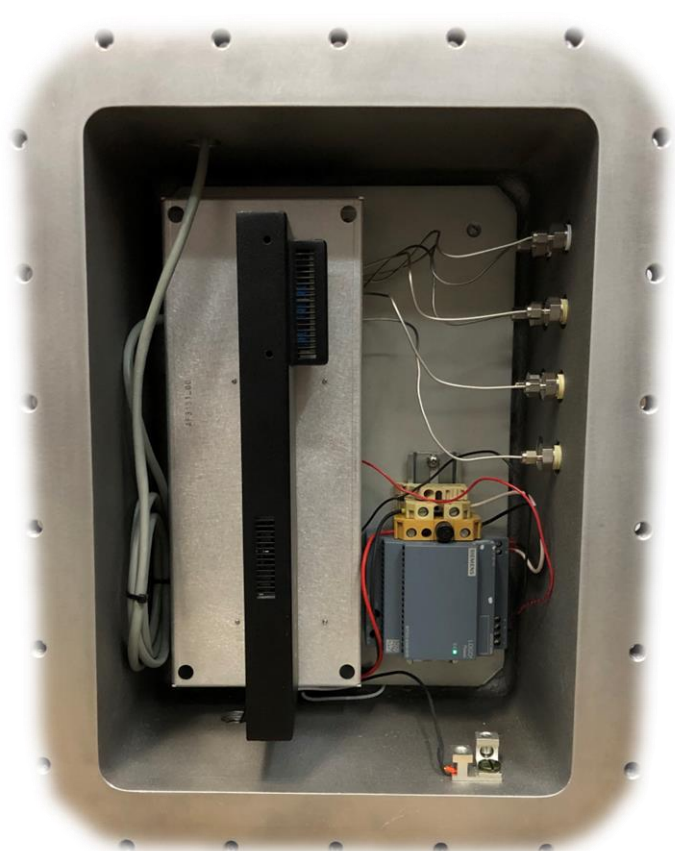
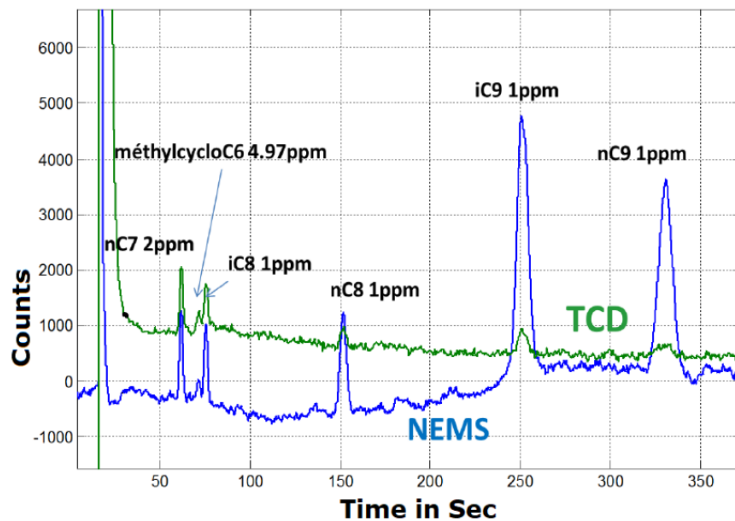
AccuChrome™ is a 3<sup>rd</sup>-generation GC backed by Galvanic's 40 years of field-proven experience supporting gas processing industries.



## New NEMS Method Offers Speed and Sensitivity

### Nano-Electromechanical Sensor (NEMS)

When measuring hydrocarbons heavier than C<sub>7</sub>, AccuChrome™ uses a NEMS detector. NEMS ironically becomes more sensitive for heavier samples and offers 1 ppm sensitivity C<sub>7</sub> to C<sub>12</sub>. The NEMS detector is used side-by-side with the standard TCD, offering an unparalleled package for extended natural gas analysis.

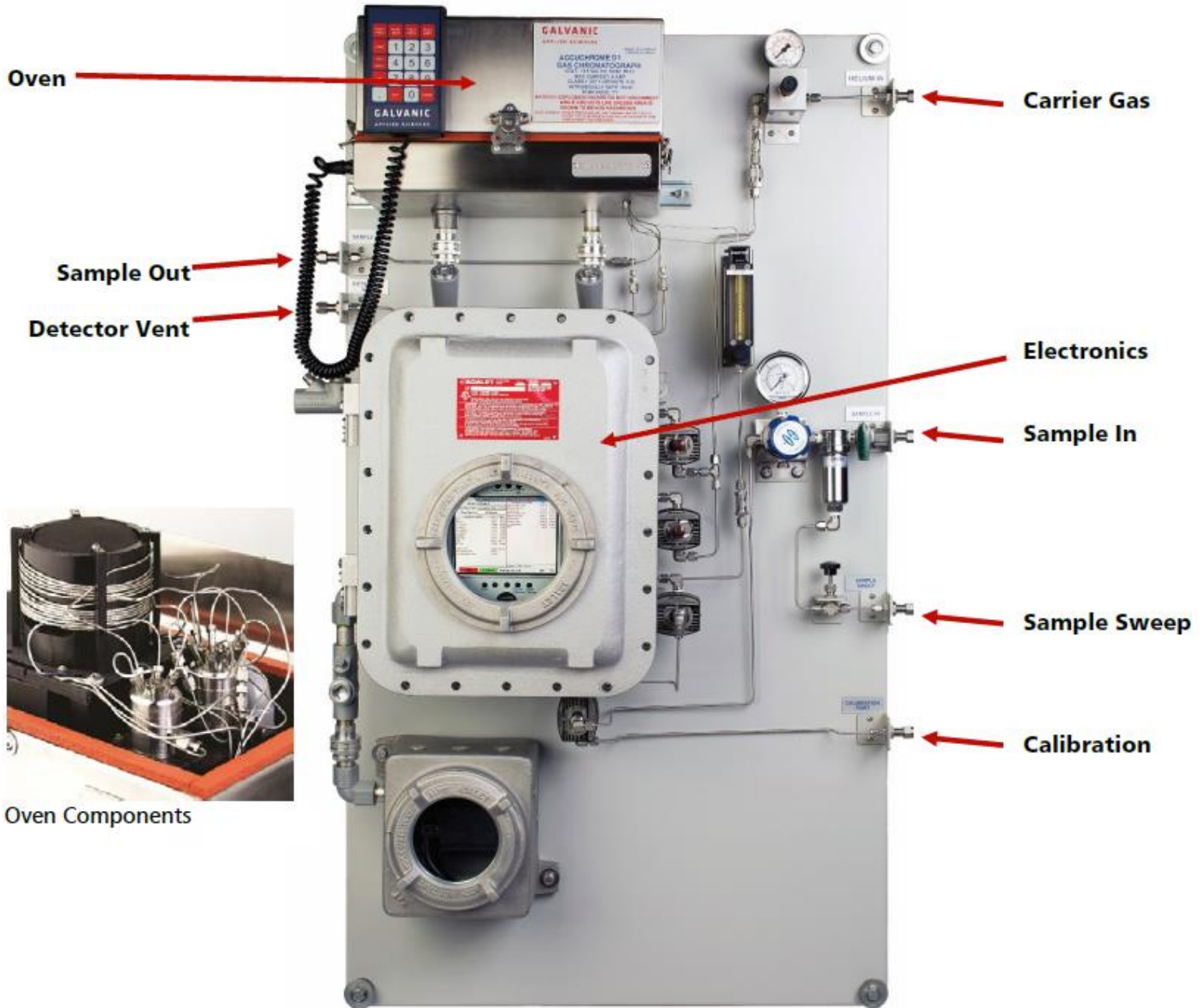




# AccuChrome™ Gas Chromatograph (GC)

Btu, H<sub>2</sub> & C<sub>9</sub> - C<sub>12</sub> for Total Measurement Certainty

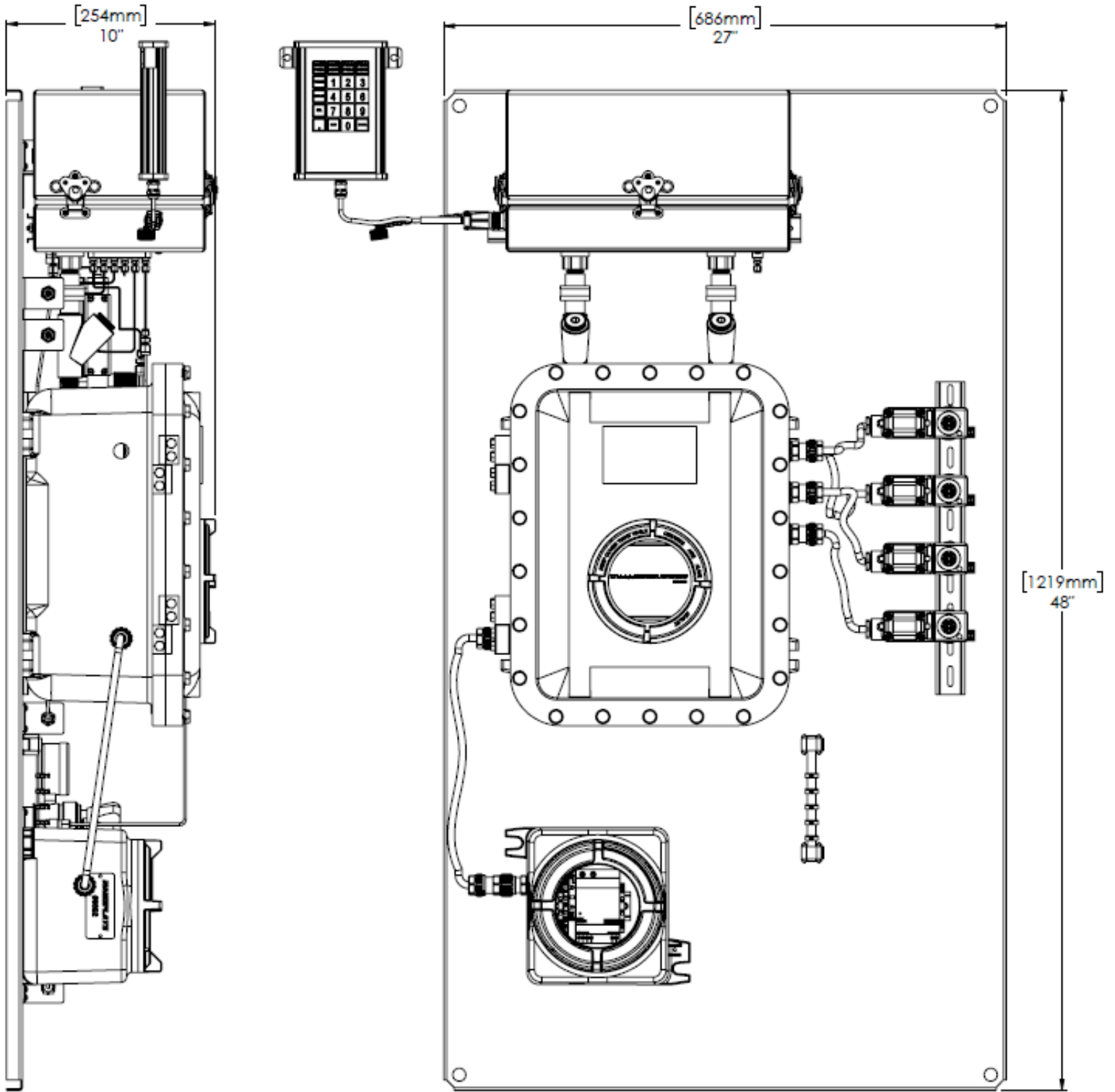
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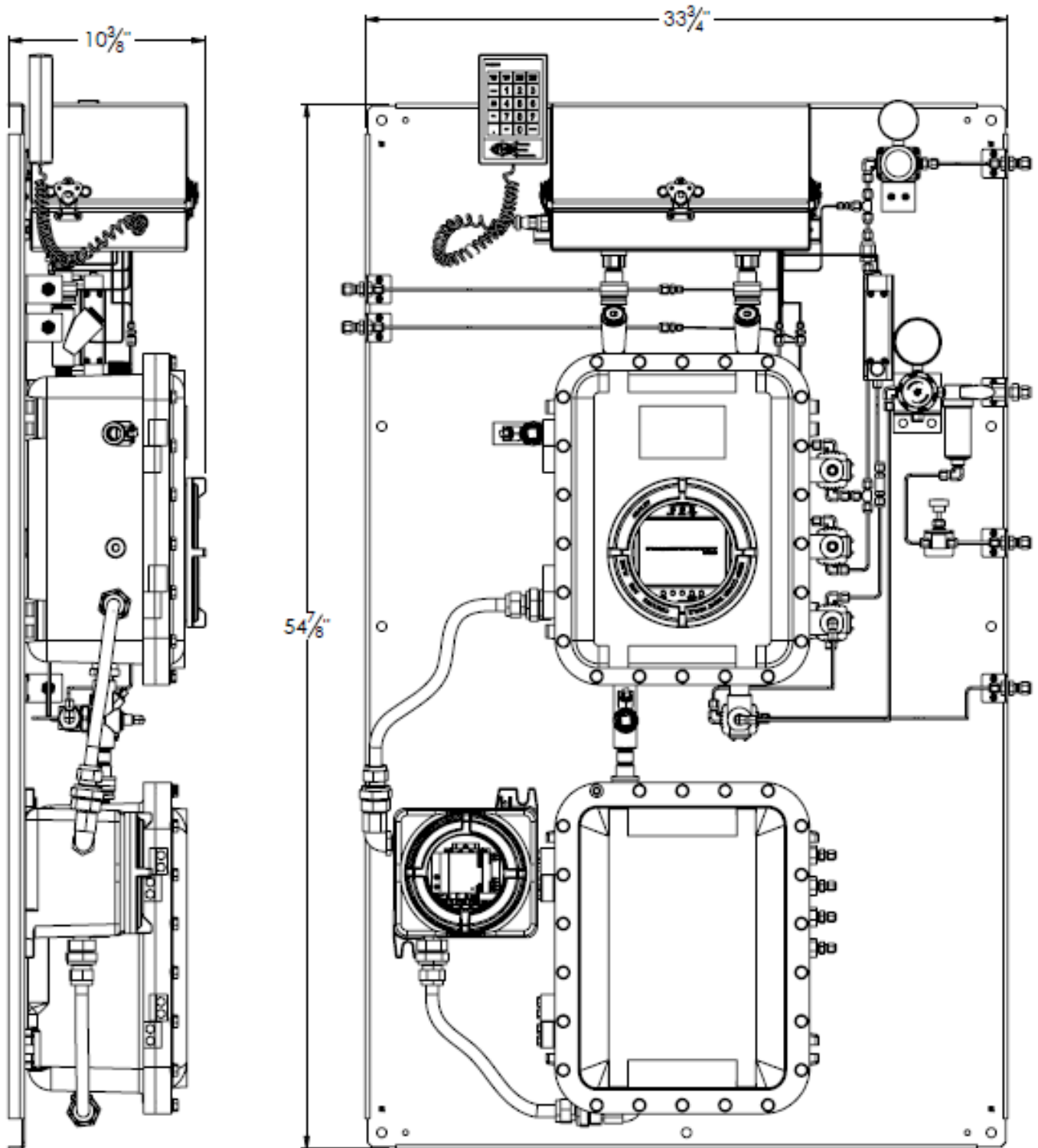
## Key Components

**AccuChrome™ Gas Chromatograph (GC)**  
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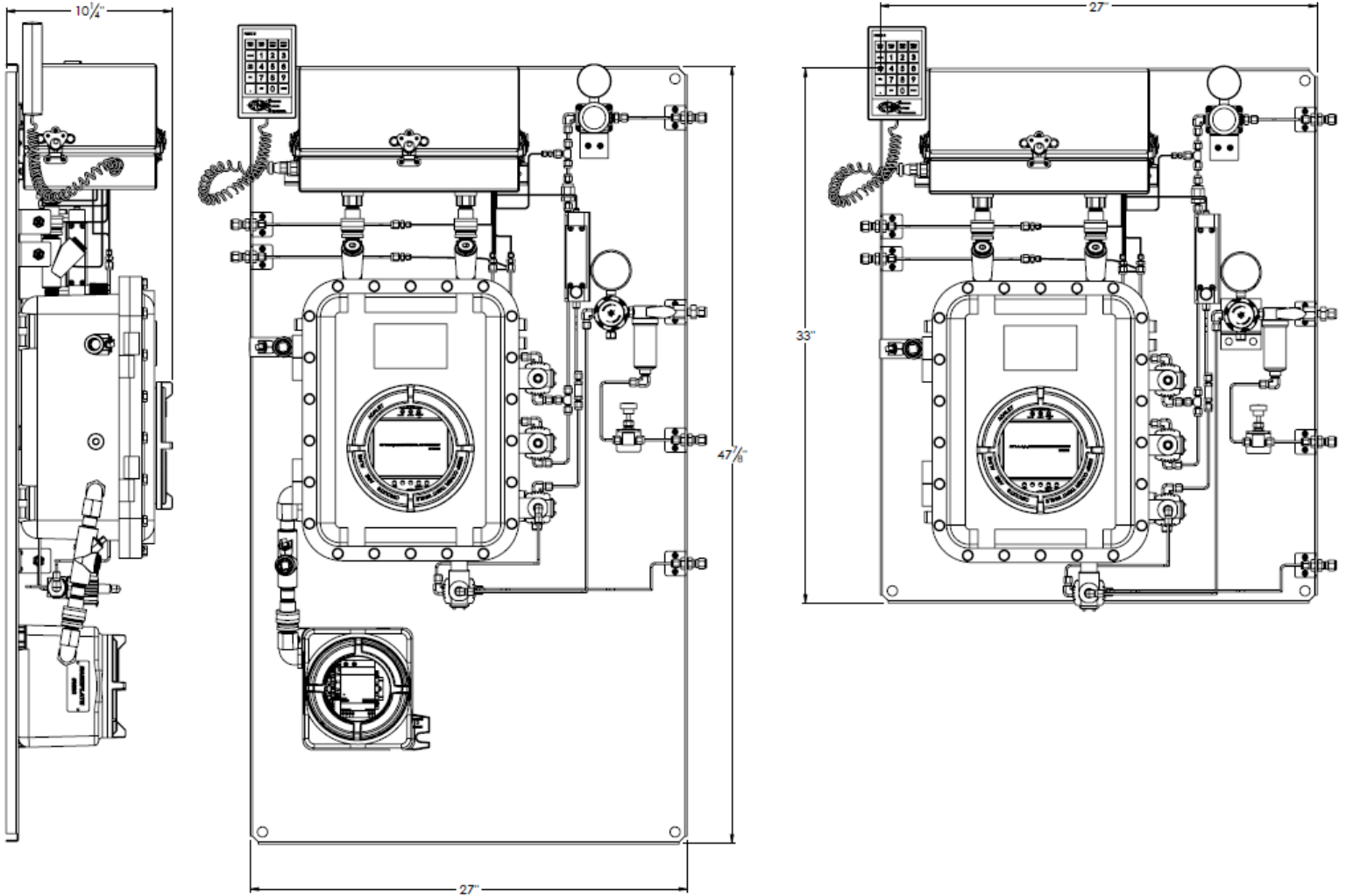
**Engineering Drawing for ATEX / IECEx Zone 1 Configuration**



**Engineering Drawing for Class I Division 1 Configuration for C9 – C12**

**AccuChrome™ Gas Chromatograph (GC)**  
Btu, H<sub>2</sub> & C9 - C12 for Total Measurement Certainty

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**Engineering Drawing for Class I Division 1 and Division 2 Configuration for C7+**



<b>Compounds</b>	Btu, Specific Gravity, Wobbe Index, Oxygen, CO, C6+ - C12+, N <sub>2</sub> , Methane, CO <sub>2</sub> , Ethane, H <sub>2</sub> S, Propane, Iso-Butane, n-Butane, Iso-Pentane, n-Pentane, Neo-Pentane, Hydrogen		
<b>Sample Handling</b>	Vapor, Vaporizable Liquid, and Liquid Samples		
<b>Accuracy</b>	± 0.25% Btu/scf per 1,000 Btu/scf or ± 0.5% to 2% F.S. [Application-Specific]		
<b>Repeatability</b>	± 0.25% Btu/scf per 1,000 Btu/scf or ± 0.5% to 2% F.S. [Application-Specific]		
<b>Sensitivity</b>	200 ppm < C7+ or 1 ppm > C7+		
<b>Method(s)</b>	Thermal Conductivity Detection (TCD) for Compounds Lighter Than C7+ Nano-Electromechanical Sensor (NEMS) for Compounds Heavier Than C7+		
<b>Response Time</b>	4 Minutes [Application-Specific]		
<b>Carrier Gas</b>	Helium or Hydrogen at 4.1 bar, 20 cc/min [60 psi]		
<b>Analog Outputs</b>	4 x 4-20mA Outputs (Loop or Self-Powered)		
<b>Analog Inputs</b>	3 x 4-20mA Inputs [RTD, 4-20mA, Transducer]		
<b>Modbus</b>	TCP/IP, RS232, or RS485		
<b>Digital Outputs</b>	4 x SPDT Relays		
<b>Digital Inputs</b>	4 Discrete Inputs		
<b>Remote GUI</b>	Ethernet Accessible		
<b>Analyzer Display</b>	Color LCD With Extendable Keypad		
<b>Ambient Conditions</b>	-20 to 60°C [-4° to 140°F] with 0 to 95% non-condensing relative humidity -20 to 50°C [-4° to 122°F] with NEMS		
<b>Dimensions</b>	686 x 838 x 318 mm [27" x 33" x 12.5"] / 838 mm (48") High with VAC Power Supply 838 x 1219 x 318 mm [33" x 48" x 12.5"] With NEMS		
<b>Power</b>	24 VDC or 90 to 240 VAC		
<b>Power Consumption</b>	100 Watts Start-up, 50 Watts Running 150 Watts With NEMS		
<b>Model</b>	Class I Division 2	Class I Division 1	Class I Zone 1
<b>C9 Capability</b>	No	Yes	No
<b>Enclosure Material</b>	Stainless Steel	Cast Aluminum	Cast Aluminum
<b>Enclosure Rating</b>	NEMA 4 / 4X, IP65	NEMA 4 / 4X / 7, IP65	NEMA 3, IP54
<b>Enclosure Weight</b>	38.6 kg. [85 lbs.]	54.4 kg [120 lbs.] 81.6 kg [180 lbs.] With NEMS	54.4 kg [120 lbs.]
<b>Area Classification</b>	Class I Div. 2 Groups BCD T3 Measurement Canada	Class I Div. 1 Groups BCD T3 Measurement Canada	II 2 G Ex db [ia Ga] IIB +H <sub>2</sub> T3 Gb T <sub>amb</sub> -20 ≤ Ta ≤ 60C



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**Digital Copies Available**

