CALX Gas Chromatograph

An economical, compact, and simple-to-use instrument designed as a cross-over platform between a laboratory and fully unattended process control environment.
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The CALX Gas Chromatograph is designed to be an economical, compact and simple to use instrument for customers in need of a crossover platform between a laboratory and fully unattended process control environment. To fill that need a modular component based, rack-mount design was chosen, keeping the applied cost below that of a laboratory style instrument as well as below a classified process instrument. In addition to saving money and space, it maintains the esthetics of the manufacturing environment.

Part of the design criteria was to build the instrument with inexpensive, replaceable, generic, non-proprietary sub-assemblies. The CALX was designed to use up to three valves, two separately controlled oven zones, and either a PDID or TCD detector. It can also be used as an inlet system for a mass spectrometer or atomic emission detector.

The typical configuration uses a pulsed discharge detector for the trace analysis of atmospheric contaminants including hydrogen, nitrogen, oxygen, argon, carbon monoxide, methane, and carbon dioxide in aggressive/reactive electronic gases. Custom models have been configured to measure over eleven impurities in nitrogen trifluoride. In addition to the analytical flow-path, by-pass and block-and-bleed provisions for both standard and sample can be provided.

System Requirements:

Carrier Gas: Air; Nitrogen optional
Calibration Gases: Hydrogen, nitrogen, argon, methane, carbon dioxide at ppm levels;
                   Oxygen only at ppm levels in helium;
                   Carbon monoxide only at ppm levels in helium
Pneumatics: 80 psig clean dry air or inert gas
Electrical: 20 amp circuit