

GAS CHROMATOGRAPHY

Sensitivity, reliability and selectivity, precision quantitation within a reasonable time frame are among the expectations of a Gas Chromatography user. Bronkhorst fully understands these demands both from the user's point of view, and from GC's manufacturer's perspective.

Aware of the analysis market prospect, Bronkhorst has been developing throughout the years innovative solutions to meet top quality GC manufacturer's high standards.



Application requirements

Most integrators need space saving solutions involving instruments with analogue or digital (bus) communication. Furthermore, customized compact modules, pre-tested for plug and play integration are required. Reliable instruments, able to guarantee low cost of ownership, are preferred.

Important topics

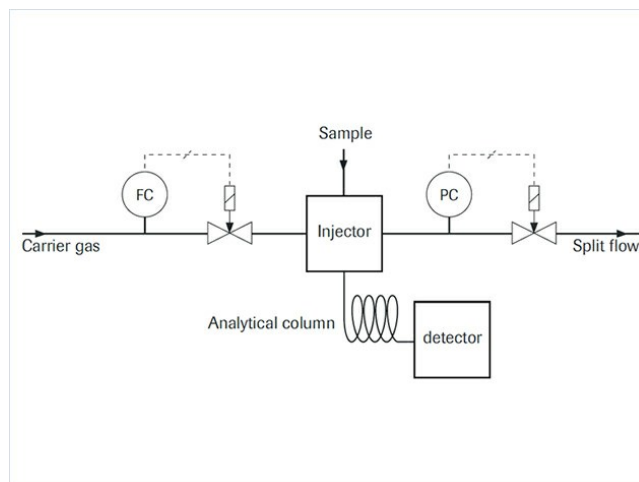
- Low cost of ownership
 - Compact
 - Simple integration
 - Pre-tested 'Plug and Play' units
-

Process solution

Enhancing analysers performance gas chromatography is a widely used analysis technique which allows the qualitative and quantitative characterization of a sample. Such sample is injected through a sample injector in a flow of carrier gas. The gas flow is controlled using a high accuracy mass flow controller (IQ[±] FLOW series). The sample to analyse will go through the stationary heated column where analytes elute at different times. Analytes are then detected by a specific type of detector depending on the GC technique used. Each analyte will generate a different peak, enabling sample's constituents identification. The attained peaks also permit a quantitative analysis through the integration of the peaks areas.

Chemical plants frequently use these analysers to check process parameters in real time, thereby requiring faster run times. Such a requirement is hard to achieve, because it is difficult to reach a good balance between faster cycles while keeping acceptable levels of separation.

Analysis becomes much faster if a higher flow rate is used, but by doing so the separation between analytes will be less efficient, therefore increasing flow rates may compromise the analyser's sensitivity.



Flow scheme

Recommended Products



IQ+FLOW IQF-100C MFM

Min. flow 0...10 ml/min
Max. flow 0...5 l/min
Drukklasse 10 bar
Ultracompact
MEMS technologie



IQ+FLOW IQP-500C

Min. druk 0,01...0,5 bar
Max. druk 0,2...10 bar
Ultracompact
MEMS technologie



MANI-FLOW

Compact assembly ensures space efficiency
Economical solution, low cost of ownership
Combination of functions on one manifold



BRONKHORST NEDERLAND

Lunet 10c

3905 NW Veenendaal

Tel. +31 (0)318 55 12 80

info@bronkhorst.nl