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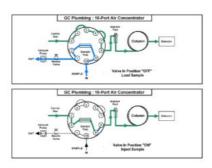


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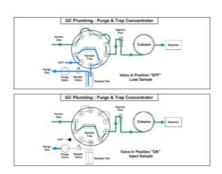




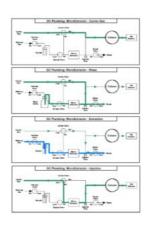


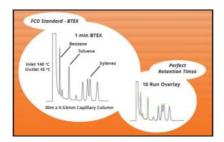






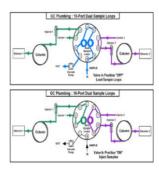


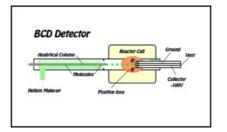


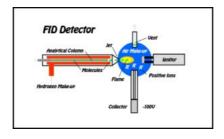


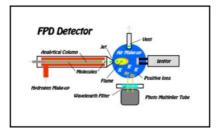


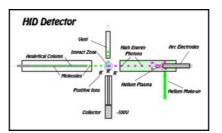


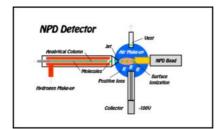


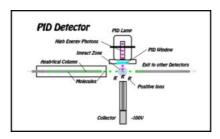


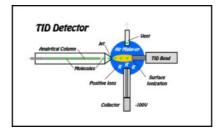












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Custom GC Systems are what we're - About!

100"S of Custom GC Systems

This fun little video tells our story. We believe we should leave our planet a better place for our children and generations to come!

We are proud to offer 4 GC models, 8 different detectors, built-in sample concentrators, incredible plumbing schemes, autosamplers, and many other accessories. Consequently, we can build 100"S of configurations of Custom GC Systems. Where each one is specifically builtto metthe requirements of your GC Analysis application. In other words, we don"t just build GC"S, we build application specific Custom GC Systems!

Companion 1 - Portable GC System

Custom GC - Products

Only1 GC
Detector(Choosefrom: FIO,
NPD, PID, orTID) " 1, or 2
Injectors (on-Column, or
Custom SIS)
Ambientto 325°C
Temperature Program - to
80°C/min

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Series 600 -

Lab GC System



- 1 to 4 GC Detectors (Choose from: BCD, FID, FPD, HID, NPD, PID, or TID)
- 1, or 2 Injectors (on Column & S/S)
- Ambient to 450°C
- Temperature Program to 100°C/min
- · EPC Pressure Control for all Gases
- Use all Capillary, Packed, or Micro-Packed Columns
- Add Air, Purge & Trap, or Headspace Concentrator!
- Almost all Custom GC Systems & Applications
- · Small, Fast, Reliable and Lightweight!

More Series 600 GC Infol

Micro-TCD GC -Continuous Monitoring



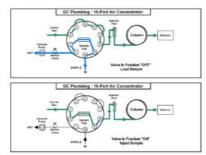
- . 1 to 4 GC Column OvervMicro-TCD Channels
- . 2 Micro-machined Thermal Conductivity Detectors (TCD) per Channel
- · Designed for Unattended Continuous Operation
- · Most analyses in less than 1 min
- Integrated 3-Stream Selector
- Automated Calibrations
- · Free standing operation with on-board GC Methods
- · Easy Chromatography Data System
- · Small, Fast, Reliable and Lightweight!

More Micro-TCD GC infol

Custom GC Built-in - Accessories



Companion 1 Air Concentrator



Click for Large

Air Concentrator – The Custom GC Air Concentrators for both the Companion Portable GC and Series 600 GCs are built right in. Most importantly, this provides both a compact portable sample concentrator and a shortest possible sample path. Above all, a heated valve and heated sample lines create an inert sample path. The sample trap is plumbed in a true backflush fashion. It also can be equipped with a variety of packing materials to achieve the best concentration of the compounds being analyzed. To start, a built-in vacuum pump loads the sample and a variable flow controller ensures consistent sample trapping and GC analysis. From start to finish, the entire sequence of the Air Sample Concentrator is automated through the Timeline of the DPS Control Software for the GC analysis of one sample. If needed the system can also be set up to run unattended 24/7, collecting and analyzing samples every hour, or so.

Headspace Concentrator



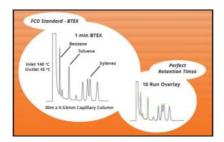
Companion 2 Headspace Concentrator



Series 600 Lab GC with Headspace Concentrator

Headspace Concentrator – The Custom GC Headspace Concentrator for both the Companion Portable GC and Series 600 GCs are built right in to provide the shortest possible sample path. Each Sample Vial is heated and then consistently Pressurized before loading the Sample Loop. A fixed Sample Loop ensures reproducible sampling and consistent GC analysis. In addition, the sample lines are Flushed between analyses to limit any cross-over contamination. Above all, the entire sequence of the Headspace Concentrator is automated through the Timeline sequence of the DPS GC Control Software for the GC analysis of one sample at a time.

Dynamic Headspace Concentrator – For even lower Detection Limits the analytes are concentrated further on an adsorbent Trap. With this method ppb levels are easily achieved. Either way, the Headspace Concentrators for DPS can solve your sample concentration requirements.







heated and the compounds are directed to the analytical column for GC analysis. In conclusion, the entire sequence of the MicroExtractor Concentrator is automated through the Timeline of the DPS Control Software.

FCO Upgrade for Fast GC



The Fluidless Column Oven (FCO) is a revolutionary low mass accessory. The column is sealed inside an insulated oven, but comes in direct contact with the heater elements. Therefore, this contact allows the gradient to be transferred directlyto the column. The low mass of the oven and direct heating make veryfast temperature ramping possible in both the Extended Run and Classic models. In addition an integrated chiller cools the column between runs and is powerful enough to permit subambient GC analysis starting as low as 20°C.

Check outthe Installation Video

Visit GC Ovens for more about Fast GC



Innovative Plumbing Schemes



Headspace Vial Cleaner Accessory



FID Overview - The FID detector is selective to all compounds that burn, therefore it is commonly used forthe analysis of hydrocarbons. At first, a precisely controlled Hydrogen and Air mixture is ignited and burns as a small flame atthe end of a jet within the Detector Body. Consequently, all compounds exiting the column pass through the flame. As a result, those that are combustible ionize. Afterthat, the negatively charged Collector Electrode attracts the positively charged lons.

FPD

There are so manyto choose from it is not possible to list them all. But just contact us and we will be happy to help you configure your Companion Portable GC, or Series 600 Custom GC System foryour specific GC sample analysis.

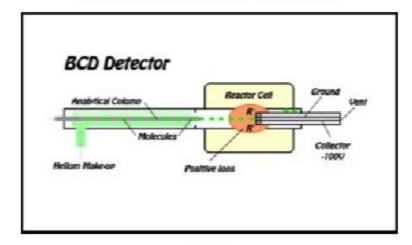


Example: Dual Sample Loop

Custom GC - Detectors

BCD Overview - Above all, the BCD detector Is highly selective to Bromine and Chlorine compounds. Moreover, the BCD is only available in DPS Custom GC Systems. While the BCD sensitivity to these compounds approaches the sensitivity of the radioactive ECO detector, the detector is completely non-radioactive. To start, atvery high temperatures, the aluminum in the ceramic collector acts as a catalyst to cleave Bromide and Chloride ions from the molecules. The catalytic activity starts around 700°C and increases exponentially, with the temperature of the Reaction Cell. However, we limitthe Reactor Cell to 1000°C for safety purposes. Finally, the negatively charged Collector Electrode attracts the resultant positively charged Molecules.

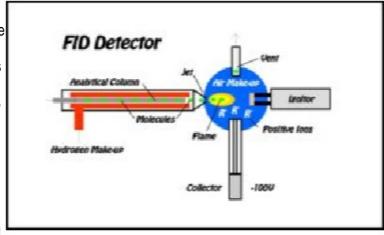
BCD Bromide Chloride Detector



FID Flame Ionization Detector

FID Overview - The FID detector is selective to all compounds that burn, therefore it is commonly used forthe analysis of hydrocarbons. At first, a precisely controlled Hydrogen and Air mixture is ignited and burns as a small flame atthe end of a jet within the Detector Body. Consequently, all compounds exiting the column pass through the flame. As a result, those that are combustible ionize. Afterthat, the negatively charged Collector Electrode attracts the positively charged lons.

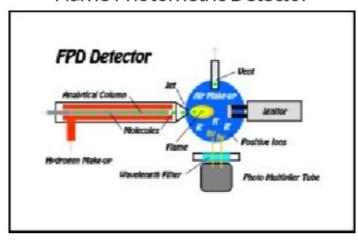
FPD



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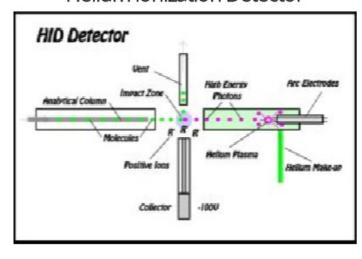
FPD Overview - The FPD detector can be configured for 2 modes of operation. Firstly, a highly selective configuration for Sulfur compounds. Or secondly, a mode that is highly selective for Phosphorus compounds. To start, a precisely controlled Hydrogen and Air mixture is ignited and burns as a small flame atthe end of a jet within the Detector Body. Therefore, all compounds exiting the column pass through the flame and those that are combustible ionize. Afterthat, all excited Sulfur, or Phosphorus ions return to their ground state and emit photons. The specific wavelength filters within the detector body only let certain photons pass through to a Photo Multiplier Tube (PMT), where they are detected and amplified. The FPO produces a lot of water, which is a problem for most Portable GC"S, howeverthe unique

FPD Flame Photometric Detector



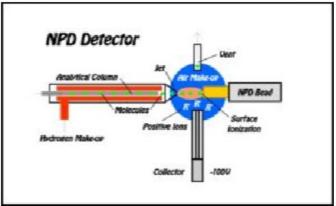
HID Overview - The HID detector is a universal broad range detector, so it is highly sensitive to almost all compounds. At first, in a pure helium environment, a currentflows between two electrodes creating a plasma of high energy short wavelength photons. Consequently, as the compounds exitthe column they are bombarded bythese photons and lonized. Take note, that the energy of these photons are 24 eV, which is sufficient to lonize almost all compounds. Afterthat, the negatively charged Collector Electrode attracts the resultant positively charged lons. The HID can be run in series with other detectors, such as a FIO, PID, or BCD. The unique design of the DPS HID detector is ideal for both Series 600 Lab and Portable Custom GC Systems.

HID
Helium Ionization Detector



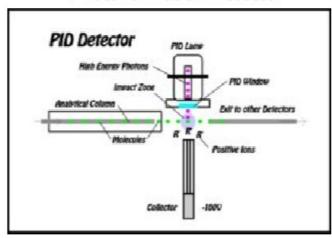
NPD Overview - The NPD detector is highly selective, but only for Nitrogen and Phosphorus containing compounds. At first, a precisely controlled Hydrogen and Air mixture surrounds the NPD bead within the detector body. Secondly, a voltage is applied to the bead to activate the surface. Finally, Nitrogen or Phosphorus compounds react with the activated surface as they exit the column creating lons. Consequently, the negatively charged Collector Electrode attracts the resultant positively charged lons.

NPD Nitrogen Phosphorus Detector



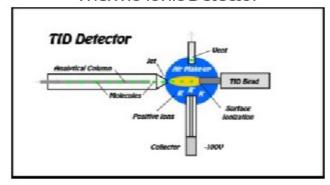
PID Overview - The PID detector is highly sensitive to hydrocarbons, but onlythose that are aromatic, or have double ortriple bonds. To begin, the PID lamp emits 2 majorwavelengths of high energy Ultraviolet lighthattravel through the window of the lamp. Afterthat, the compounds exiting the column are bombarded bythese UV photons and Ionized. Finally, the positively charged lons are attracted to the negatively charged Collector Electrode and amplified. The energy of these photons averages 10.6 eV, and this is sufficient to ionize aromatic compounds, but not aliphatic compounds. Since the PID is non-destructive, the PID detector is commonly used in series with other detectors. For instance, in DPS Custom GC Systems the PID is used in series with both the BCD and FIO detectors.

PIDPhoto Ionization Detector



TID Overview - the TID detector is highly selective to Amines and Nitroaromatic compounds commonlyfound in explosives. At first, a precisely controlled Nitrogen, or Air mixture surrounds the TID bead within the detector body. Secondly, a Voltage is applied to the bead to activate the surface. Afterthat, Amines and Nitroaromatic compounds react with the activated surface as they exitthe column creating lons. Therefore, the negatively charged Collector Electrode attracts the resultant positively charged lons.

TID Thermo lonic Detector



Custom GC - Customers

Six Continents and Counting!

Due to the current data protection regulations we are reluctant to present a list of customers, or even display their logos. We think thatthis is sad, but you probably already have a good idea of who they are by the products and services they provide. Although, we have smiling customers on 6 continents, Antarctica is still open, so we are hoping for a happy customer there too!

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Custom GC"S for Method Specific -Applications

Consumer Products
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Custom GC Forensics

PetroChemical
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Custom GC Petrochemical

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Click an Image for the Application

Custom GC Pharmaceutical



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Custom GC Quality

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