

**A**fter years of development and testing, DPS Instruments, Inc. is pleased to introduce the most expandable and versatile Gas Chromatography Systems in history. The DPS 600 Series GC systems are the world's only modular GC systems. GC Modules can be mixed to and matched to make 100's of cost effective, application specific configurations for any GC method! With 7 detectors to choose from, on-Column or Split/Splitless injectors, and an Autosampler interface, we boldly say, "If you can dream it, we can build it!"

The DPS 600 Series GC Systems are a new kind of GC. They encompass a state of the art space saving expandable chassis at their core. Our plug-and-play modular components allow for unprecedented performance, and yet all of our GC Systems are easier to build, maintain, and upgrade in the field. The intelligence of the 600 Series GC Systems are locked safely in microprocessors, where our proprietary Digital Sample Processing routines control the temperatures and gas pressures to tighter specifications than ever before and DSP is what makes our Soft Landing ever so soft.

The DPS 600 Series GC specifications are on par with the biggest selling GC's in the market, yet they are smaller, lighter, faster, more intelligent, and have delightful pricing.

# DPS 600 Series GC



## General Specifications:

- Expandable Modular Design
- 100's of Standard Application Specific Configurations
- Wind Tunnel Oven and Soft Landing
- Color Touch Screen Instrument Control
- Free standing operation with on-board GC Methods
- Proprietary Digital Signal Processing
- Built-in Instrument Diagnostics
- Temperature Control to 0.001 °C
- EPC Pressure Control to 0.001 kPa
- Ambient to 400 °C Column Oven(s)
- Up to 100 °C per/min Column Oven Ramp
- Fast Cooldown 300 °C to 50 °C in <4 min
- Compact and Lightweight,  
600 series GC (45 x 45 x 45 cm), approximately 25 kg

Patent Pending





**Electronics Module:**

- Color Touch Screen Instrument Control
  - Enter and store GC Methods via Color Touch Screen
  - Actual and set-point display of all GC parameters
  - Safety Limits on all user entered parameters
  - Oven Temperature Programs (OTP) with Multiple Ramps
  - Pressure Programs for Carrier Gases with Multiple Ramps
  - Timeline for sequencing Relays, Valves, Traps, etc.
  - Detector Control of all Parameters on one page
- Up to 6 Electronic Pressure Controllers (EPC's):
  - Atmospheric Pressure & Temperature Compensation
  - EPC Pressure Control with 0.1 kPa set point resolution
- Plug and Play GC Control, Oven, and Detector Boards
  - Microprocessor Controlled
  - Proprietary Digital Signal Processing
- Standard Interfaces
  - Liquid and Headspace Autosamplers
  - Remote Start and Stop to other lab instruments
  - Digital Signal Outputs for each Detector
  - Analog Signal Outputs for each Detector.
- Universal voltage input (85 – 240 Vac) with line filter and breaker.

**Detectors:**

- 1-4 Detectors Installed
- 400°C Temperature Limit with 0.1 °C set-point resolution
- Multiple Range Analog Output Selection (0-1V, 0-5V & 0-10V)
- 24-bit Digital Outputs for each detector via USB
- EPC Pressure Control with 0.1 kPa set-point resolution

FID – Flame Ionization Detector (100 pg detection limit)  
 PID – Photoionization Detector (10 pg detection limit)  
 HID – Helium Ionization Detector (100 pg detection limit)  
 NPD – Nitrogen Phosphorus Detector (20 pg detection limit)  
 TID – Thermoionic Detector (20 pg detection limit)  
 BCD – Bromine Chlorine Detector (10 pg detection limit)  
 FPD – Flame Photometric Detector (10 ng Sulfur,  
 10 pg Phosphorus detection limits)

**Oven Module:**

- Column Oven:
  - Ambient to 400 °C Column Oven(s)
  - Up to 100 °C per/min Oven Ramp
  - Fast Cooldown 300 °C to 50 °C in 3.5 min
  - 1000 watt total Heater Elements
  - Multiple Temperature Ramps with 0.1 °C set-point resolution
  - 23 x 23 x 20 cm area for Glass, SS, or Capillary Columns
- Independent Control of Column Oven
- Optional Single Gas Sample Valve and Isothermal Valve Oven
- Optional Vacuum Pump w/ Flow Control

**Injectors:**

- 1 or 2 Installed
  - Split/Splitless and On-column Injectors
  - Standard Liners, Fittings, and Septum
  - Multiple Pressure Ramps with 0.1 kPa set-point resolution
  - 400°C Temperature Limit with 0.1 °C set-point resolution

**Autosamplers:**

- Liquid Autosampler - 110 Vials, 2 mL
- Headspace Autosampler - 40 Vials, 10 or 20m L
- Combination Liquid / Headspace Autosampler

**Network Connectivity:**

- Enterprise Compatible Network GC running Windows XP
- On Board ETX Computer for GC Control and Data Acquisition
- Ethernet Connection using Windows Network Protocol
- Remote Control of GC and Data Acquisition over LAN

**Data Communications:**

- Bidirectional communication with Data System
- Analog and Digital Signal Outputs
- Start, Stop & GC Ready Output Signals
- Optional Autosampler Control Software

**DPS 600 S-Series***Single oven GC*