



DISSOLVED GAS ANALYZER GC

Home > Gas Chromatographs > Dissolved Gas Analyzer GC



Dissolved Gas Analyzer GC

Dissolved Gas Analyzer GC

For measuring gases dissolved in water, seawater, wastewater, oil, and other liquids.

- **HID, FID and/or TCD Detectors**
- **Built-in PeakSimple data system**
- **Built-in Standards Preparation Module—make your own standards**
- **10-port gas sampling valve**
- **Gas extraction loop on the compact 8610C chassis**



8610-0035

8610-0036

Basic Model

The DGA GC System from SRI Instruments is designed to make dissolved gas analysis easier and less expensive than other methods. No sample preparation is necessary prior to injection into the DGA GC; this helps to avoid contamination made possible by transferring the sample between various containers. The DGA GC may also be used online. For example, you could place the sample inlet tube directly into the ocean and analyze the dissolved gases in seawater.

In the SRI Instruments DGA GC, the sample is injected by peristaltic pump through a unique gas extraction loop. The gas extraction loop consists of permeation tubing encapsulated in a trap-heated glass tube. The permeation tubing is plumbed to the sample inlet, the 10-port gas sampling valve and the waste/sample outlet.

When the sample is pumped through the gas extraction loop, the dissolved gases permeate through the membrane into the extraction chamber. Solenoid valves are included for purging the gas extraction loop with helium between runs.

By reconnecting a few tubing lines, the DGA GC can be configured to prepare dissolved gas standards. A Tedlar bag, or other container, filled with gas standard of a known concentration is connected to the standard pump. The standards preparation vessel is filled with sample liquid, such as sea water or waste water. The standard pump bubbles gas standard into the standards preparation vessel, equilibrating the liquid over time to the known concentration. Equilibration takes about one hour.

Solubility of Gases in Water at 1%:

Hydrogen 0.016 ppm

Oxygen 0.43 ppm

To obtain these chromatograms, the DGA GC standards preparation module was used to create 13 ppb hydrogen gas by weight in water: 1% hydrogen gas standard was pumped through water in the standards preparation vessel for a length of time sufficient to achieve equilibration. The water in the standards preparation vessel was then pumped into the gas extraction loop and run as the sample. The TCD quantifies the large oxygen and nitrogen peaks, while the sensitive HID detects hydrogen down to 13 ppb.

8610-0035 DGA GC System with HID detector, 1 channel data system, 115VAC \$ 15,959.00

8610-0036 DGA GC System with TCD & HID detectors, 6 channel data system, 115VAC \$ 18,019.00

(VOLTAGE: for 230VAC, use 8610-0035-2 or 8610-0036-2)

Select Model

--Select Model--

Send Inquiry

or

Add To Inquiry