

URG- 3000N-5Lpm Low Flow Carbon Sampler

FOR COLLECTION OF ELEMENTAL AND ORGANIC CARBON

The URG-3000N-5Lpm is designed to sample for organic and elemental carbon found in ambient PM_{2.5}. The measurement of ambient carbon species is an important part of the United States national PM 2.5 μ m Chemical Speciation Network (CSN).

The URG-3000N has been designed for the USEPA to achieve comparable data with the carbon measurements of the Interagency Monitoring of Protected Visual Environments (IMPROVE) PM_{2.5} carbon module.

Measurement Capabilities

Collects PM_{2.5} particles on quartz filters. These filters are analyzed for organic and elemental carbon using Thermal Optic Reflective (TOR) analysis method.

Features

- Flexible Programming for Scheduling Up to 3 Sampling Events Unattended
- Active Volumetric Flow Control
- Self-Supporting Stand to Allow Easy Access to Sampler and Provide Protection in Field Operation
- User Friendly Keypad for All Operator Interfacing
- Additional Collocated Module Configuration Available

Specifications

- Available with 25mm or 37mm Filters
- 5Lpm Flowrate
- Weather-Tight with New Improved Stainless Steel Enclosures
- 64" x 21" x 18", 61.4 kg (135 lb)
- Operates at -20° to 45° Celsius



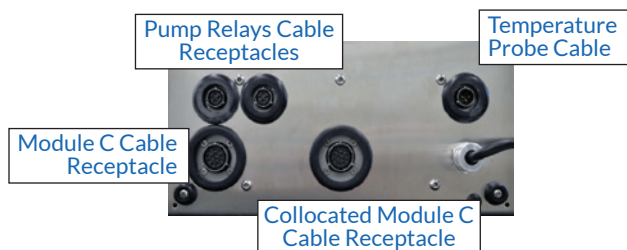
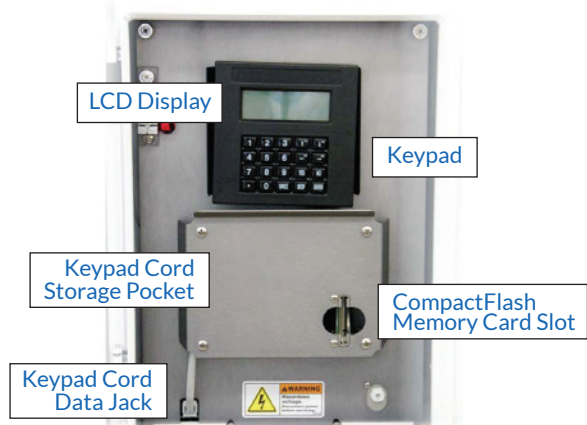
URG-3000N Carbon-5Lpm Low Flow Sampler Component Details

Controller

The sampler controller is used to control the sample collection and acquire data during sampling. This consists of a controller, a terminal with LCD screen, a twenty-button keypad and the appropriate electronic components. The controller is shown below.

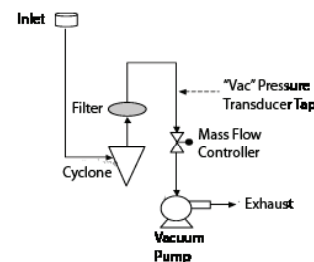
The Controller:

- Provides a Status of Current Sampler Operations to the Site Operator
- Flexible Programming for Scheduling Up to 3 Sampling Events Unattended
- Keeps the Current Date and Time
- Records Pressure Temperature and Flow Measurements Once a Minute and Averages are Recorded on the CompactFlash Memory Card Every 15 minutes



Filter Cassette Cartridge

Filter cassettes and cartridges are manufactured specifically for the URG-3000N sampler. Available for 25mm or 37mm filter media. The two halves of the cassette snap together and are sealed with an O-ring. The individual cassettes are installed in cartridges with four cassettes per cartridge.



Flow Diagram

The ambient air enters through a screened inlet on top of the stack. The cyclone is 50% efficient at removing particles with aerodynamic diameter larger than 2.5 μ m at the nominal flow rate of 5Lpm.

Additional Literature Available

- Complete URG Parts Catalog
- Compendium of Methods for the Determination of Inorganic Compounds in Ambient Air - IO-4.2 Determination of Reactive Acidic and Basic Gases and Strong Acidity of Fine Particles, USEPA publication 625/R-96/01a
- URG Systems Overview
[Download at www.URGcorp.com](http://www.URGcorp.com)
- Compilation of research papers documenting URG Air Sampling Instruments from 1983 to present
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