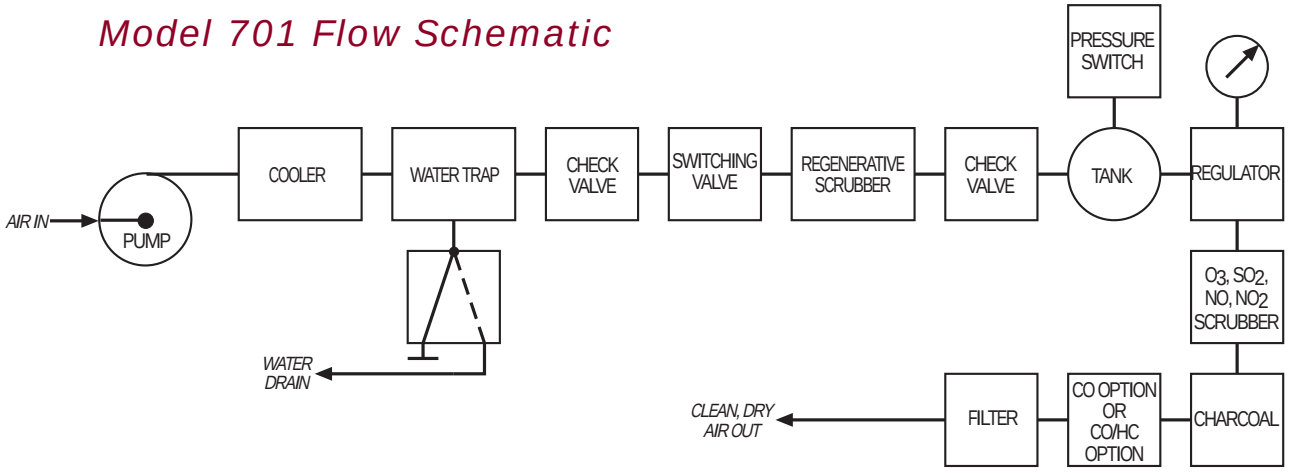
Zero Air System
Model 701

A totally self-contained microprocessor controlled supply of clean dry zero air

- **Regenerative, heatless dryer for maintenance-free water removal independent of inlet dewpoint**
- **Long life scrubbers for SO_2, NO, NO_2, O_3, H_2S**
- **Optional CO or CO and Hydrocarbon scrubber**
- **Automatic water drain**
- **Automatic pump control based on flow demand**
- **May be used to provide combustion air for FID (with HC Scrubber option)**
- **Source of purge air for permeation tubes**
- **Zero air for Ozone Generators**

The Model 701 is an excellent source of clean dry air for use by a dilution calibrator, zero calibration, permeation tube purging, or as a source of burner air for FID analyzers. The regenerative heatless dryer removes water without requiring any warm-up, and provides a gas with a dewpoint of less than minus 20 degrees C, independent of inlet dewpoint. The dryer also assists in the removal of other gases, greatly increasing the life of the chemical scrubbers. The basic Model 701 includes an oil-less diaphragmless pump plus scrubbers to remove SO_2, NO, NO_2, O_3 and H_2S. Optional scrubbers are available to remove CO and Hydrocarbons. Inlet air is pulled into the pump and routed through a pre-cooler, which takes out most water. The air then passes through the regenerative scrubber where the final drying action is taken, and from there to the storage tank. Tank pressure is monitored and maintained at a preset level by cycling the pump as needed. The outlet of the tank passes through various scrubbers and through a filter to produce a clean, dry, zero air supply. A microprocessor controls the regenerative dryer and the water trap valve, and ensures that the pump can start even against full head pressure. The Model 701 is an ideal accessory to the Model 700 Mass Flow Calibrator, Model 702 Single point calibrator, or as a zero air source for the Model 200A or Model 400 Analyzers.

Model 701 Flow Schematic



ZERO AIR ZERO AIR ZERO AIR ZERO AIR ZERO AIR ZERO AIR ZERO

ZERO AIR ZERO AIR ZERO AIR ZERO AIR ZERO AIR ZERO AIR ZERO AIR ZERO AIR ZERO A

Model 701
Zero Air System

Specifications

Output:	20 SLPM@30 psi
Dewpoint:	<-20˚C up to 15 LPM <-10˚C up to 20 LPM
Dryer:	Regenerative heatless dryer with lifetime of greater than 5 years
Output concentrations (maximum):	SO_2 <0.5 ppb NO <0.5 ppb NO_2 <0.5 ppb O_3 <0.5 ppb Hydrocarbons <0.02 ppm (requires optional scrubber) CO <0.025 ppm (requires optional scrubber)
Pump:	Internal, oil-less, diaphragm-less, long life
Mounting:	Bench type mounting, rack mount optional
Dimensions (HxWxD):	8.75” (22.2 cm) x 17” (43.2 cm) x 23.5” (59.7 cm)
Weight:	55 lbs (25 kg)
Power Requirements:	100V 50/60 Hz, 115V 60 Hz, 220V 50/60 Hz, 230V 50 Hz, 240V/50 Hz, 400 Watts
Approvals:	CE

How To Order

Model 701 Zero Air System includes:

- Internal pump
- Regenerative dryer
- Bench mounting
- Scrubbers for SO_2, NO, NO_2, O_3, H_2S
- Adjustable output of 10 SLPM or 20 SLPM

Specify voltage/frequency:

☐ 100V/50 Hz ☐ 100V/60 Hz
☐ 220V/50 Hz ☐ 115V/60 Hz
☐ 230V/50 Hz ☐ 220V/60 Hz
☐ 240V/50 Hz

Additional Options:

☐ Rack Mount (19”)
☐ Rack Mount with slides
☐ CO scrubber
☐ Hydrocarbon and CO scrubber

API ADVANCED POLLUTION INSTRUMENTATION, INC.

6565 Nancy Ridge Drive, San Diego, CA 92121-2251
Phone: 619.657.9800 • Fax: 619.657.9816
E-mail: sales@advpol.com