



**TELEDYNE INSTRUMENTS**  
*Advanced Pollution Instrumentation*  
A Teledyne Technologies Company

MODEL **701**

# Zero Air System



- ▶▶ **Standard two year warranty**
- ▶▶ **Regenerative, heatless dryer for maintenance-free water removal independent of inlet dewpoint**
- ▶▶ **Long life scrubbers for SO<sub>2</sub>, NO, NO<sub>2</sub>, O<sub>3</sub>, and H<sub>2</sub>S**
- ▶▶ **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 tube ovens**
- ▶▶ **Zero air for Ozone Generators**

The Model 701 is an excellent source of clean, dry air for dilution calibrators. It also may be used as a source of purge air for permeation tube ovens or burner air for FID analyzers.

The regenerative, heatless dryer removes water and produces gas with a dewpoint of less than -20°C (up to 15 SLPM flow rate) independent of the inlet dewpoint and assists in the removal of other gases, greatly increasing the life of the chemical scrubbers.

The basic Model 701 includes an oil and diaphragm free pump plus scrubbers to remove SO<sub>2</sub>, NO, NO<sub>2</sub>, O<sub>3</sub> and H<sub>2</sub>S. Optional high performance scrubbers are available to remove CO and Hydrocarbons.

Inlet air is pulled into the pump and routed through a pre-cooler and water trap to remove moisture. The air then passes through the regenerative scrubber for final drying and then to the storage tank.

Tank pressure is monitored and maintained at a preset level by cycling the pump automatically as needed, thereby extending both the pump and scrubber life. Outlet air then passes through a filter to assure a clean, dry, analytical zero air supply.

A microcontroller cycles the regenerative dryer and water trap valves preventing the pump from starting against full head pressure. The Model 701 is an ideal accessory to the Model 700E Mass Flow Calibrator or Model 702 Single Point Calibrator as a zero air source for analyzers.

***FREE Customer Support by telephone and email for the life of the instrument***

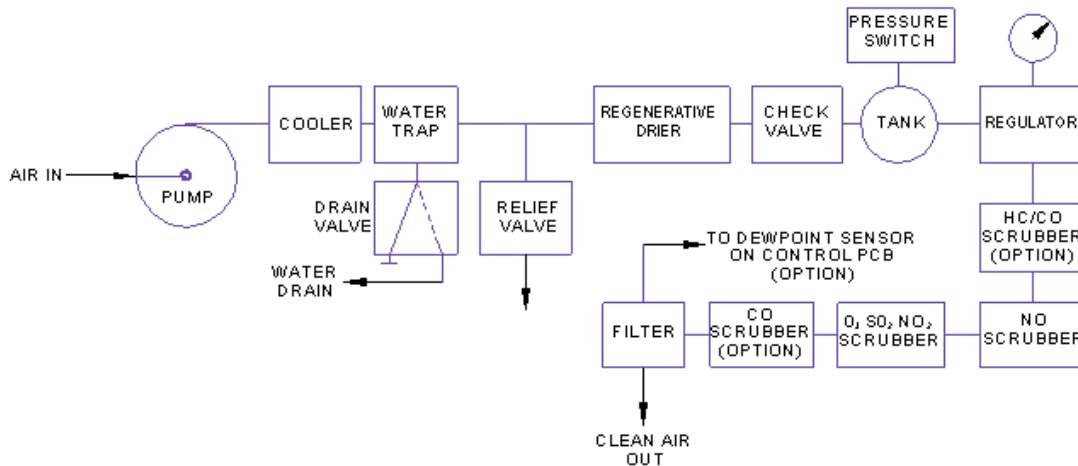


# MODEL 701 Zero Air System

## Specifications

Output:	20 SLPM @ 30 psig	Pump:	Internal long-life, oil-less piston pump
Dewpoint:	-20°C up to 15 LPM -10°C above 15 LPM	Mounting:	Bench type mounting, rack mount optional
Dryer:	Regenerative heatless dryer with lifetime of greater than 5 years	Dimensions (HxWxD):	8.75" (22.2 cm) x 17" (43.2 cm) x 28" (71.12 cm)
Output concentrations (maximum):	SO <sub>2</sub> < 0.5 ppb NO < 0.5 ppb NO <sub>2</sub> < 0.5 ppb O <sub>3</sub> < 0.5 ppb CO < 0.025 ppm (requires optional scrubber) Hydrocarbons < 0.02 ppm (requires optional scrubber)	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

## Schematic



## How to Order

### Model 701 Zero Air System includes:

- Standard two year warranty
- Internal pump
- Regenerative dryer
- High performance scrubbers for SO<sub>2</sub>, NO, NO<sub>2</sub>, O<sub>3</sub> & H<sub>2</sub>S
- Output of 20 SLPM

### Specify input AC voltage & frequency:

- |  |                                       |
|--|---------------------------------------|
| <input type="checkbox"/> 100V / 50 Hz    | <input type="checkbox"/> 100V / 60Hz  |
| <input type="checkbox"/> 220V / 50Hz     | <input type="checkbox"/> 1150V / 60Hz |
| <input type="checkbox"/> 230V / 50Hz(CE) | <input type="checkbox"/> 220V / 60Hz  |
| <input type="checkbox"/> 240V / 50Hz     |                                       |

### Additional Options:

- Rack mount brackets (19")
- Rack mount with slides
- CO Scrubber
- Hydrocarbon and CO Scrubber
- 13 SLPM flow restriction
- Dewpoint Sensor

Specifications subject to change without notice. Printed documents are uncontrolled. SAL000024 A (DCN 5206 ) M701 11/19/08



**TELEDYNE INSTRUMENTS**  
*Advanced Pollution Instrumentation*

A Teledyne Technologies Company

9480 Carroll Park Drive ■ San Diego, CA 92121-5201

Ph. 858-657-9800 Fax 858-657-9816

Email [api-sales@teledyne.com](mailto:api-sales@teledyne.com)

For more information about the Teledyne API family of monitoring instrumentation products, call us or visit our website at

[www.teledyne-api.com](http://www.teledyne-api.com)

