



TELEDYNE INSTRUMENTS
Advanced Pollution Instrumentation
A Teledyne Technologies Company

MODEL **701**

Zero Air System



- ▶▶ Regenerative, heatless dryer for maintenance-free water removal independent of inlet dewpoint
- ▶▶ Long life scrubbers for SO₂, NO, NO₂, O₃, and H₂S
- ▶▶ 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 a gas with a dewpoint of less than -20°C, independent of inlet dewpoint. The regenerative 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, diaphragm-less pump plus scrubbers to remove SO₂, NO, NO₂, O₃ and H₂S. Optional scrubbers are available to remove CO and Hydrocarbons. Inlet air is pulled into the pump and routed through a pre-cooler and water trap that removes water. The air then passes through the regenerative scrubber, where the final drying occurs, and from there to the storage tank.

Tank pressure is monitored and maintained at a preset level by cycling the pump automatically as needed, extending pump and scrubber life. The outlet air from the tank is cleaned and goes through a filter to produce a clean and dry zero air supply.

A microcontroller cycles the regenerative dryer and the water trap valves, ensuring that the pump does not start 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.



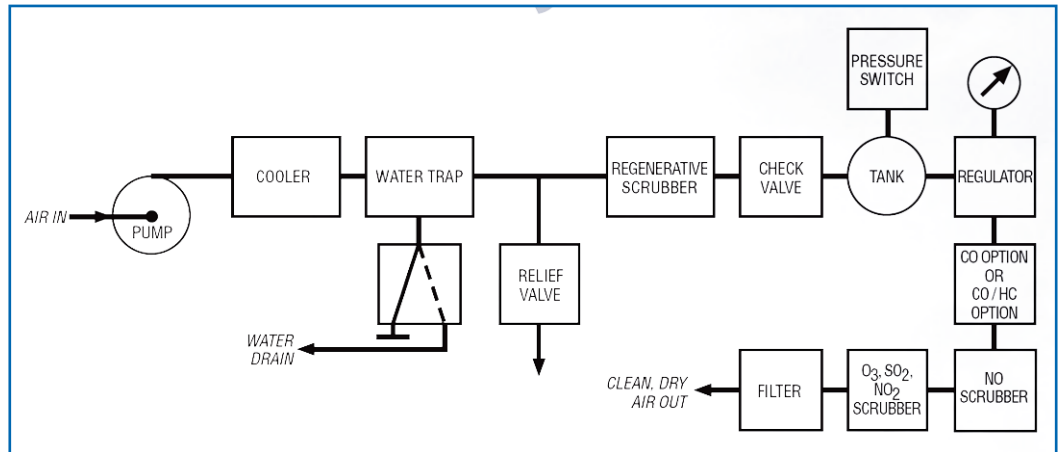
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Specifications

Output:	10 SLPM @ 30 psig 20 SLPM @ 30 psig (optional)	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" x 17" x 23.5" (22.2 x 43.2 x 59.7 cm)
Output concentrations (maximum):	SO ₂ < 0.5 ppb NO < 0.5 ppb NO ₂ < 0.5 ppb O ₃ < 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:

- Internal pump
- Regenerative dryer
- Scrubbers for SO₂, NO, NO₂, O₃, H₂S
- Output of 10 SLPM

Specify voltage/frequency:

- 100V/50hz
- 220V/50hz
- 230V/50hz (CE)
- 240V/50hz
- 100V/60hz
- 115V/60hz
- 220V/60hz

Additional Options:

- Rack Mounts (19")
- Rack Mounts with slides
- CO scrubber
- Hydrocarbon and CO scrubber
- 20 SLPM output

Specifications subject to change without notice. M701/09.06



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