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Analytical Products and Solutions

Siemens Air Treater Model 1

Specification Sheet

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Function

The FID Air Treater is designed to remove trace hydrocarbons in instrument air that is used for the combustion air in Flame Ionization Detectors (FID). Trace hydrocarbon removal lowers the background noise for the detector. It also avoids the problems and expense of using bottled air. Removal of the trace hydrocarbons is accomplished by heating the air, in the presence of catalyst, to a temperature above the oxidation temperature of the trace hydrocarbons. The treater air is then allowed to cool before it leaves the explosion proof enclosure.

Installation

The instrument air connections must always be made through the attached flame arrestors. These arrestors should never be removed. If they become damaged, the air treater must be turned off until it can be replaced or repaired by the factory. The air treater should be firmly mounted to the wall, the floor or a rack on which the analyzer is mounted. The installation should be such that the air treater cannot be damaged in normal maintenance operations.

Specifications

Dimensions	Approximately 8 1/4" x 8 1/4" x 11 3/4" (210 x 210 x 300 mm) (w x d x h) A minimum of 15 3/4" (400 mm) total clearance is required in depth for removal of the bottom cover
Weight	23 pounds (10.5 kg)
Power requirements	115 or 230 VAC, 50 watts
Installation	Panel, rack, or wall mounted near the analyzer
Construction	300 Series Stainless Steel in contact with the treated air Mounted in an explosion proof aluminum enclosure
Input air quality	Meet or exceed ISO8573-4 (Class 3) requirements. Maximum total hydrocarbon content less than 1 ppm and -20°C humidity.
Input air flow	Clean, dry (dew point 0°C) instrument air 250 to 1500 ml/min (depending on requirements)
Input pressure	5 to 150 psig, depending on flow rate desired
Warm-up time	Approximately 90 minutes
Treated air purity	Up to 95% of the trace hydrocarbons typically found in instrument quality air are removed by the air treater
Catalyst life	Catalyst is not consumed as part of the air treatment so the life is indefinite. However the catalyst can be poisoned when exposed to sulfur compounds.
Safety	CSA certified for use in Class I, Division 1, Groups B, C, D Hazardous Locations for US and Canada ATEX certified for use in Zone 1 or 2, gas group IIB + H2 explosive atmosphere (II 2 G) (EEx d IIB+H2 T5) Temperature Class Rating: T5
Environmental	-4 to 122°F (-20 to 50°C), 0-90% humidity, non-condensing

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