AMERICAN ECOTECH

WORLD CLASS environmental MONITORING

H_2S-1100
Hydrogen Sulfide Converter &
HTO-1000
TRS/NH3 Converter

The Ecotech Model H_2S-1100 Hydrogen Sulfide Converter employs both catalytic and thermal principles to convert H_2S to SO_2. Converter efficiency is better than 95% over a temperature range of 300°C to 400°C. (350°C is the optimal temperature for H_2S conversion).

For best results, the H_2S-1100 Hydrogen Sulfide Converter should be used in conjunction with an Ecotech Sulfur Dioxide analyzer. Because H_2S is oxidized to SO_2.at 350°C, and there is no conversion of other sulfur compounds, an accurate quantitative measurement of H_2S in the atmosphere can be easily made.

Specifications

Power:	115/230 VAC 50/60 Hz. (selectable)
Flow Rate:	450 – 750 cc/min
Operating temperature:	0°C – 50°C, RH non condensing
Converter temperature:	350°C for >95% conversion
Converter performance:	H_2S less than 2 ppm with greater than 95% efficiency
Converter life:	6000 ppm-hours of H_2S to SO_2 conversion Converter life will also depend on the condition of the sample gas. High level water vapor will reduce the life of the converter!
SO_X Scrubber performance:	Removes 99% of all SO_2 for 350 ppm - hours.

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HTO-1000
Thermal Oxidizer

The Ecotech HTO-1000 Thermal Oxidizer is a thermal converter designed to be used with nitrogen gas analyzers for the measurement of ammonia (NH_3) or with sulfide dioxide gas analyzers for the measurement of hydrogen sulfide (H_2S) or total reduced sulfide (TRS). The HTO-1000 can also be used for Hydrocarbon removal from air creating hydrocarbon free zero air.

The Ecotech Model HTO-1000 thermal oxidizer is specifically configured for each gas application by using different catalysts and operating temperatures. The converter is available with a SO_X scrubber for use in hydrogen sulfide (H_2S) applications.

The oxidizer is used to oxidize gaseous compounds in an atmosphere containing oxygen.

Ammonia (NH_3)

- Conversion Efficiency: 88 – 94%
- Oven temperature: 680°C

Hydrogen Sulfide (H_2S) (as the H_2S-1000)

- Conversion Efficiency: >95%
- Oven Temperature: 350°C
- Range: 0-2000 ppb H_2S
- SO_X Scrubber Lifetime: 300 ppm-hours

Total Reduced Sulfur (TRS)

- Conversion Efficiency: >95%
- Oven Temperature: 900°C
- Range: 0-20,000 ppb

NOTE: For TRS measurement, the design of the quartz converter complies with US EPA method for the Determination of Total Reduced Sulfur found in the Federal Register 40 CFR Ch1, Part 60, App A, Method 16A (7 - 1 - 85 edition). The use of a quartz tube is derived from this method and utilizes the operating temperature recommended by US EPA guidelines mentioned in Section 3.4 of 800°C ± 100°C.

Specifications

Power:	110 VAC, 60Hz (5A slow blow fuse) or 240 VAC, 50Hz (3.15A slow blow fuse) - please specify
Consumption:	200 VA
Weight:	22 lbs (10 kg)
Dimensions:	8.7” x 19” x 8.7” (220mm x 484mm x 220mm) 5RU height (includes rack mount ears)
Operating temperature:	25-1000°C
Gas temperature accuracy:	± 5°C
Flow rate:	0.1 – 1.5 l/min
Quartz tube volume:	88.5 cm^3
Gas pressure:	Vacuum to maximum of 2 bars
Response time:	5 – 10% of rise/ fall time of analyzer

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