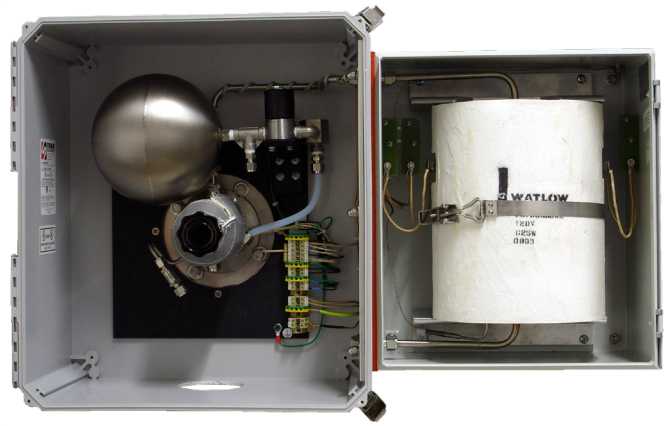
270 GAS SAMPLE PROBE & AMMONIA (NH_3) CONVERTER



Standard 270SF with NH_3 mounted on the right.

NH_3 Converter

APPLICATIONS

- **Natural Gas**
- **SCR Process**
- **Oil Refinery**
- **Coal Fired Plant**
- **Large Diesel Engines**

GENERAL DESCRIPTION

The Universal Analyzers Ammonia (NH3) Converter is designed for continuous use in extractive gas sampling systems. The converter is typically purchased as an option to standard model 270 Heated Stack Filter probes and comes attached to the side of the probe enclosure, with all wiring and plumbing connected to the necessary probe components.

The modular design of the sample probe is used to filter dust and particulates from a wide variety of gas streams in exhaust stacks and duct applications. Sample from the stack is drawn through the heated probe filter, where it is then split into two separate flow paths. One path exits the filter chamber as the normal, unconverted stack sample. The other path is directed through the thermal oxidizing NH3 canister where NH3 and NO2 are converted into NO.

The NH3 canister is housed in an all-in-one heater and insulation unit. Over time (typically many years), particulate and oxidation can reduce the effectiveness of the conversion process, and the canister should be replaced. The simple design allows for easy removal and replacement of the canister. No other maintenance is typically necessary.

Tubing from the filter chamber to the converter is wrapped with a heating element to ensure no condensation forms in the flow path. The canister heating element is user controlled, and typically kept at temperatures between 1200°F and 1550°F (user adjusted for maximum effectiveness).

All other standard model 270 probe options may be ordered along with the ammonia converter, including high pressure blowback functions, calibration gas injection, and all standard flange sizes. Refer to the specific model 270 cut sheets for more information regarding the probe specifications.

FEATURES

Easy, 3 step canister replacement: After a sufficient cool down period, 1) unbuckle the canister strap and open the front half of the heater/insulation, 2) slide the thermocouple down and away from the canister, and 3) loosen both tube fittings at the housing wall and remove the canister.

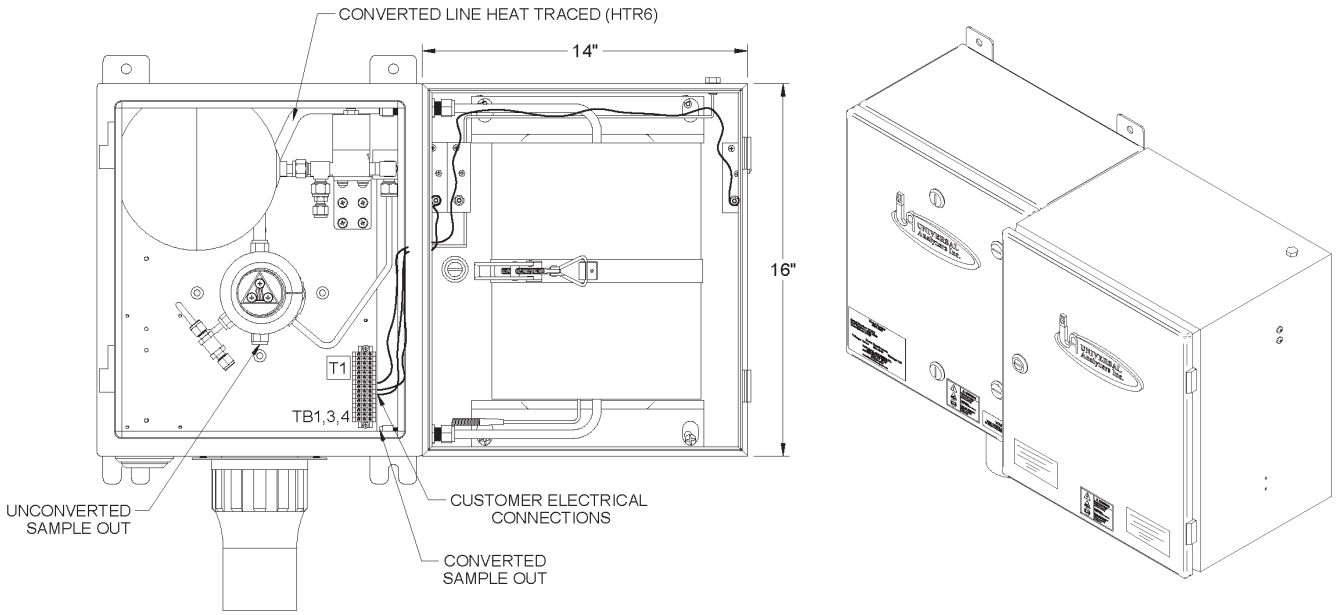
Increase of usable surface area: Our converters are layered with an innovative tortuous path for NH3 conversion. This design ensures long life of the system and increased efficiency, especially in oil-fired boiler applications where coating is a major problem.

High Efficiency: >95%

Ceramic fiber heater/insulation: 1000°F temperature differential between canister and outside insulation.

Universal design: May be soldwith the Model 270 gas sample probe or as a standalone unit.

270 GAS SAMPLE PROBE & AMMONIA (NH_3) CONVERTER



Drawing P1376

TECHNICAL SPECIFICATIONS

Sample Flow Rate:	0 to 5 LPM
Calibration Gas Requirement:	Sample flow rate plus 10% (Includes unconverted sample)
Oven and Vaporizer Temperature:	User controlled via temperature controllerType K Thermocouple: 1200°F-1550°F
Dimensions:	16”H x 14”W x 10”D*
Weight:	36 Lbs*
Input Power Requirement:	1250 WATTS typical*
Input Voltage Requirement:	115 VAC 50/60 Hz
Maximum NH_3 Concentration:	20 ppm by volume
Conversion Efficiency:	>95%

** Probe not included*

AMETEK®
THERMAL PROCESS MANAGEMENT

ISO 9001:2015
UA-DAT-270NH3-20RC

+1 (775) 883 2500 • sales.universal@ametek.com
www.UniversalAnalyzers.com