

MODEL 1221EX DISTILLATION GAS SAMPLE PROBE

For Process Control and
Difficult Sample Conditions



AMETEK®



MODEL 1221EX

UNIQUE SELF CLEANING AND TEMPERATURE STABILIZED PRIMARY SAMPLE CONDITIONING SYSTEM

The Universal Analyzer's 1221EX Probe maintains a consistent and stable temperature, ensuring more accurate gas chromatograph measurements of the sample gas by providing temperature control within $\pm 1^{\circ}\text{C}$.

MODEL 1221EX SOLUTION

This type of gas probe is also known in the industry as a py-gas (pyrolysis) sampler or reflux sampler, this gas probe condenses vapors with a lower dew point, allowing only clean and dry samples to pass through for measurement. It is typically used in applications where transporting a raw, hot, or dirty sample to the gas chromatograph for reliable analysis is challenging.

The Model 1221EX comes standard with the following Global Hazardous Area Approvals and Certifications:

- IECEx Ex 60079-46 IIC T4 Gc
- ATEX CE (Ex) II 3 G Ex 60079-46 IIC T4 Gc
- CE: EMC (2014/30/EU), LowVoltage D (2014/35/EU), RoHS II (2011/65/EU)
- WEEE (2012/19/EU)
- Ingress Protection: IP66

EASY MAINTENANCE

- Less equipment and field personnel required for routine maintenance
- Simplified removal of the spine separator assembly by removal of top flange
- Reduce production downtime

ACCURATE MEASUREMENTS

- Adjustable outlet temperature based on desired analytical measurements

REDUCED AIR CONSUMPTION

- Energy savings from less plant air demand
- Efficient distribution of cooling air with patented TraceBoost™ Technology

MORE TIME BETWEEN DE-COKING

- Avoid expensive downtime from unplanned or frequent coke buildup in the lines
- Extended uptime improves reliable data and better process control

FEATURES

- Global Hazardous Area Approvals IECEx, ATEX Zone 2 (Gc) Gas Group IIC T4
- Accurate outlet temperature control $\pm 1^{\circ}\text{C}$
- Local electronic controller for accurate analytical measurements
- Standard -20 to 55°C ambient temperature or optional low temp version -40 to 55°C available
- Self-cleaning 316SS separator for reduced maintenance
- Single vortex 40 SCFM and optional dual vortex 80 SCFM airflow
- Removable one piece 316SS separator
- Typical applications can handle 5 LPM sample flow (higher flow rates possible, consult factory for details)
- Model 1221EX Probe height 55" or reduced height Model 1221EXR 35"

TYPICAL APPLICATIONS

- Ethylene furnace effluent
- Decoke process
- Fluid catalytic cracker units (FCC)
- Ethylene and propylene production units (ETP process, proper ratio measuring)



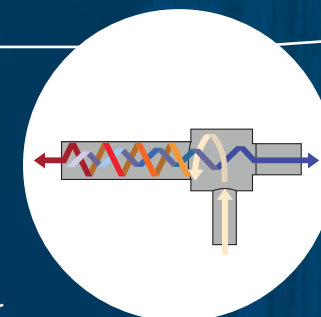
REMOVABLE ONE PIECE 316SS SEPARATOR

- Simplified one person field maintenance
- Self-cleaning separator
- 316SS coalescing discs ensure water or heavy hydrocarbons are removed from the sample



VORTEX COOLER

- Handles harsh environments & temperatures
- Maintenance free
- Provides cooling without the need for additional power consumption
- Solely driven by compressed air
- Single vortex 40 SCFM and optional dual vortex 80 SCFM airflow



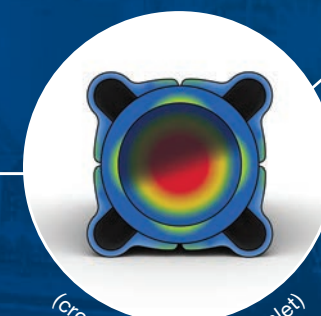
CONTROLLER

- Local electronic
- Optional low temperature electronic controller available -40 to 55°C (-40 to 131°F)
- Setpoint accuracy on average to $\pm 1^{\circ}\text{C}$
- Powered by 115VAC or 230 VAC at 50 or 60Hz
- Alarm dry contact relay and digital outputs



TRACEBOOST™ TECHNOLOGY

- Superior cooling performance
- Reduces air consumption
- Energy savings from less plant air demand and efficient distribution of cooling air with patented TraceBoost™ Technology



(Cross section view at inlet)





AMETEK

UNIVERSALANALYZERS.COM

sales.universal@ametek.com
+1(775) 883-2500