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PRODUCT SPECIFICATIONS

Thermo Scientific 85 Mercury Probe

Low maintenance, dilution probe transports mercury and scrubs sample gas

The Thermo Scientific™ Model 85™ Mercury Probe is one of the four major components of the Thermo Scientific™ Mercury Freedom System.

Features

- Dilution system for wet basis measurement
- High flow sample filter to reduce particulate matter contamination
- Glass coated components to prevent reactions with mercury
- Conversion at the stack to prevent loss of elemental mercury
- Proprietary dry converter/scrubber requires no wet chemistry or water supply
- Options to include the Mercuric Chloride Generator or HovaCAL input connection

Introduction

The Thermo Scientific Model 85 Mercury Probe is an extraction probe consisting of a dilution probe, sample filter, and a proprietary dry converter/scrubber housed in an insulated IP65 aluminum steel enclosure. The probe has been specifically designed for monitoring mercury emissions from coal-fired power plants, waste incinerators and cement kilns. Artifacts due to interactions with the fly ash are minimized using a glass coated, sintered-metal sample filter to provide a particle-free, vapor-phase sample for analysis. Automated blow-back helps to ensure trouble-free continuous operation, and all components exposed to sample gas are glass-coated to prevent reactions with mercury.

To prevent sample condensation, all key components (sample filter, eductor, dilution module and manifold) are further enclosed in a heated aluminum cabinet. The converter/scrubber converts oxidized forms of mercury to elemental mercury while removing interfering gases from the sample stream.

Weighing only 62 pounds, the probe has been designed for easier maintenance and service. Two latches on the top and bottom of the probe cover allow quick access to the interior. Inside, the components are easily accessed and can be serviced or removed in a matter of minutes, with minimum tools.

The Mercuric Chloride Generator option produces mercuric chloride in the probe. This is used for periodic System Integrity Checks. No wet chemistry is utilized.

The Mercury Freedom System provides a complete mercury monitoring solution that measures elemental, ionic, and total mercury in exhaust stacks from coal-fired boilers, waste incinerators and cement kilns.

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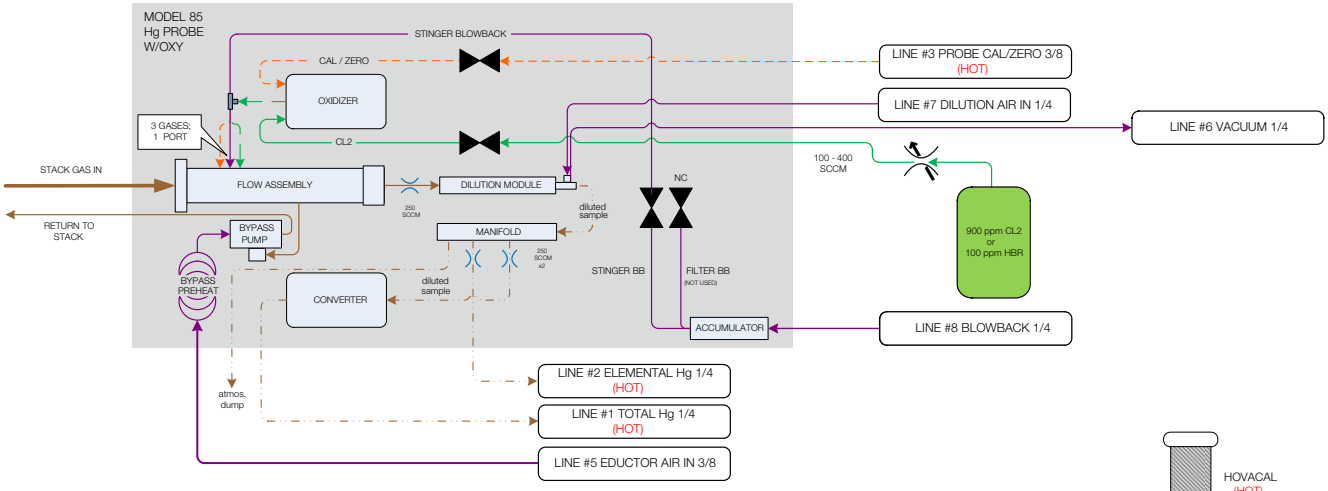
Thermo Scientific Model 85 Mercury Probe

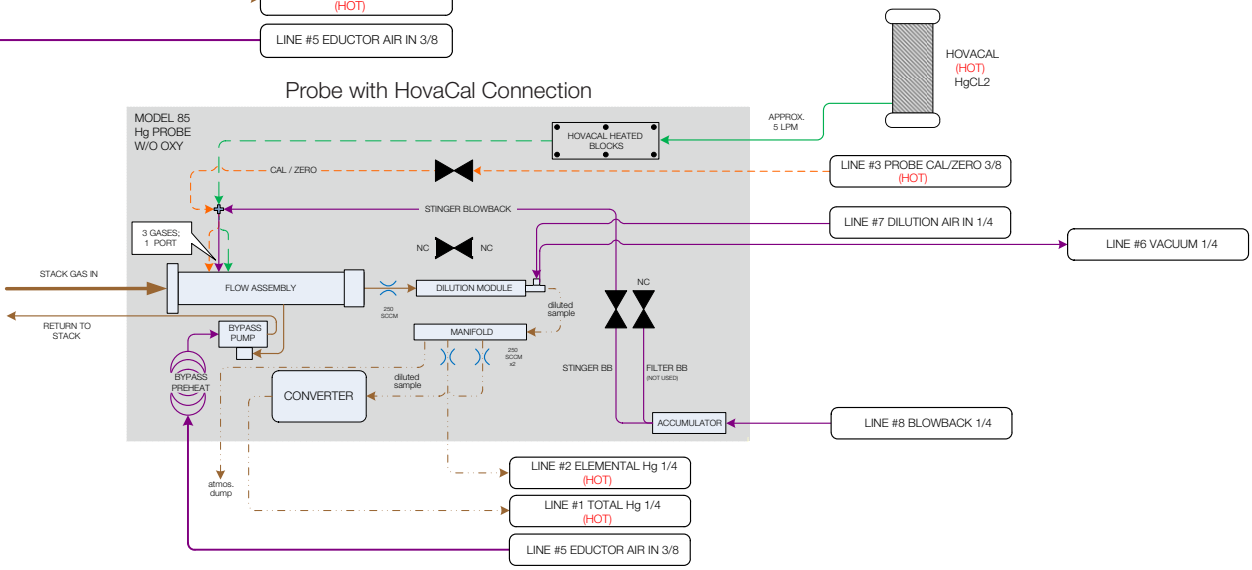
Specifications	
Operating temperature	-4° to +122 °F (-20° to +50 °C)
Enclosure rating	IP65 (outdoor)
Dimensions	19" × 22" × 12" (hwd) without stinger
Weight	45kg, 100 lbs with stinger
Flange	ANSI 4" or DIN65 Utilities Required
Utilities Required:	
Power	230 VAC/50 Hz, 1,400 Watt (Probe only)
Instrument air	3.0 m^3/hr @ 90 PSI (6 BAR)
Electrical Safety	CE
Optional Calibration	Optional connection for external hot vapor ionic mercury (HovaCAL)
Approvals and Certifications	U.S. EPA: PS-12A and/or Part 75 provisions for continuous CEM systems MATS/MACT Certified: TÜV Certified: EN15267-1, EN15267-2, EN15267-3 and EN14181

Flow Diagram: Model 85 Mercury Probe

Probe with Oxidizer



Probe with HovaCal Connection



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