

BLOWBACK PREFILTER

PRODUCT DATA SHEET—105

Self-cleaning prefilter for heavy particulate loads
 For powder processing and handling systems

Introduction

The Neutronics Blowback Prefilter is a preconditioning component designed to remove dust and fine particulate matter from the sample stream, preventing contamination or damage to the oxygen sensor and sampling system components. Large amounts of particulate will over-load typical inline filters. The Blowback Prefilter provides the required particulate filtration along with automatic filter element cleaning, substantially reducing maintenance and increasing system reliability.

Operation

The Blowback Prefilter Assembly includes the filter housing, an intrinsically safe solenoid valve, and an optional back-wash timer. During the sampling mode, the sample gas from the process flows through the filter element and through the solenoid valve to the sample conditioning package. Particulate matter will accumulate on the outside of the filter element. During the blowback mode, the solenoid valve opens to allow compressed air to pulse into the top of the sintered metal filter, dislodging the dust and particulate from element.

Installation

The Blowback Prefilter must be vertically mounted directly on the process vessel. The preferred method of installation is to remove the bottom end cap and attach the filter directly to the process vessel. The back-wash timer controls the solenoid valve and the ON/OFF modes. The timer is factory configured. When powered up, the timer directs the solenoid to select the purge gas to flush the prefilter for the "ON" time period. The timer then directs the solenoid to select the sample mode for the "OFF" time period. The blowback mode will create a temporary "low sample flow" or "hazard" condition for the duration of the blowback plus approximately 15 seconds. A timer enable may be required on the alarm controls.

Maintenance

The filter element requires periodic inspection. Cleaning is required if the sample flow drops below the minimum requirement.

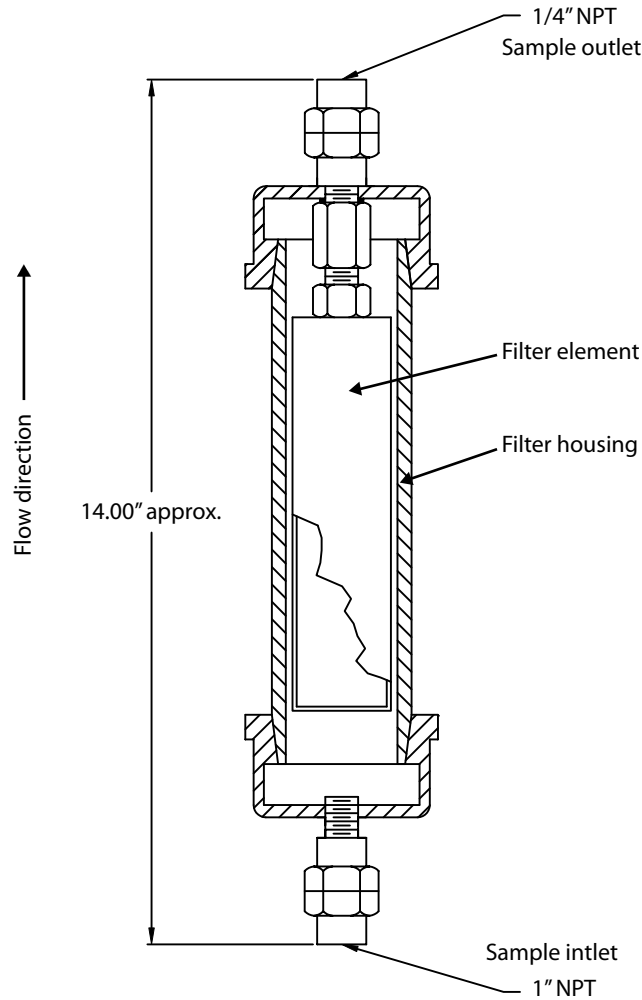


Features

- High efficiency separation of dusts and particulates from the sample gas stream – improves sampling system performance
- Effectively removes particulate matter down to 0.4 microns – increases system reliability
- Robust filter design – sintered metal filter element is built for continuous operation and long service life
- Compressed air blowback provides automatic filter cleaning – minimizes maintenance costs and unplanned downtime
 Intrinsically safe solenoid valve and optional back-wash timer automatically controls the filter element cleaning – increases system reliability
- Corrosion resistant materials of construction – available in Stainless steel with Stainless steel filter element or Kynar with Hastelloy filter element

BLOWBACK PREFILTER — SPECIFICATIONS

Housing materials of construction	Stainless steel or Kynar
Min/max differential pressure	40 psig/100 psig
Filter element materials of construction	Stainless steel or Hastelloy
Filter removal rating	0.4 micron nominal, 1.0 micron absolute
Filter element area	0.18 sq. ft.

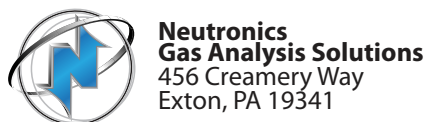


Spare parts

Part No. 4-05-2300-12-0	Sintered filter element, Stainless steel (SS)
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Order information

Part No. 6-02-4000-14-0	Blowback prefilter	SS with SS filter element
Part No. 6-02-4000-14-4	Blowback prefilter	SS with SS filter element with air actuated ball valve and pilot solenoid
Part No. 6-02-4000-14-9	Blowback prefilter	Kynar with hastelloy filter element
Part No. 6-02-4000-15-1	Blowback prefilter	Kynar with hastelloy filter element and manual Hastelloy 3-way ball valve



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