

# SS-F

## Filtrex™ Hostile-Area Smoke Head — Analog Addressable Detector with SmartScan™



### Description

Gamewell's SS-F SmartScan™ smoke detector provides early warning smoke detection in hostile environments where traditional smoke detectors are not practical. Using a small air intake fan and a high-performance replaceable filter, air and smoke are drawn into a photoelectric sensing chamber, while unwanted airborne particulate and water mist are removed. This feature allows the SS-F to operate in difficult applications, such as textile or paper mills, which due to environmental conditions tend to cause nuisance alarms with standard smoke detectors.

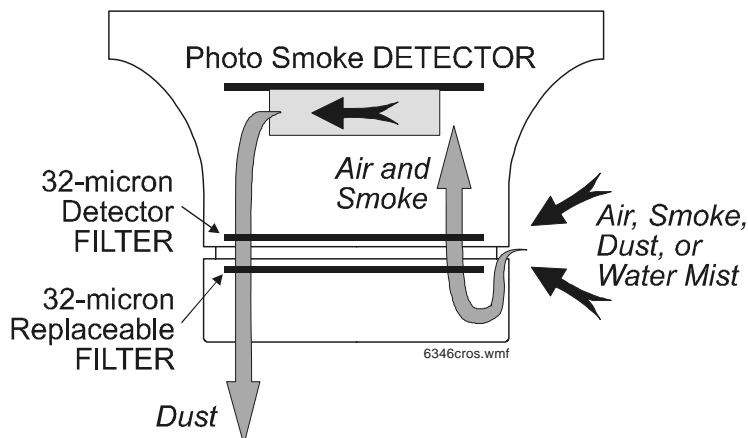
### SS-F Operation Overview

**Normal Operation** — A miniature fan is pulsed on and off under microprocessor control to conserve power, yet provide good smoke response. The system uses two filters (one replaceable) that remove particulates while allowing smoke to pass.

**Filter Supervision** — Periodically, the filter system is tested for blockage using a special thermal airflow sensor. In reasonably clean environments, the filter is expected to last at least as long as the smoke-entry test period required by NFPA 72. In very dirty environments, the filter may need replacement more frequently.

**Filter Trouble Reporting** — If SS-F determines that filter blockage is imminent, a warning trouble is indicated to the panel, followed by a return to normal. 72 hours after this warning, the detector will disconnect, giving a continuous trouble signal.

**Operation overview diagram:**



### Features

- Analog intelligent communications.
- High-performance filter removes particulates down to 32 microns (32-micron inner filter and replaceable outer filter).
- Air delivery system is separately powered and fully supervised.
- Outer filter is easily field replaceable.
- Tolerant of external air velocity.
- Resistant to water vapor in applications where occasional non-direct water spray is performed.
- Optional remote LED annunciator.
- Rotary DECADE address switches with settings 01-99.
- Dual bi-color (red/green) LEDs flash green when Normal and are steady red in Alarm (systems with SmartScan™ only).
- Compatible with the Gamewell 602, 610, 632, 654 and 658 FACPs.
- Requires auxiliary 24 VDC from system or remote power supply.

### Listings

Listings and approvals below apply to the SS-F Filtrex Hostile Area Smoke Head Analog Addressable Detector with SmartScan™. In some cases, the module may not be listed by certain approval agencies, or listing may be in process. Consult factory for latest listing status.

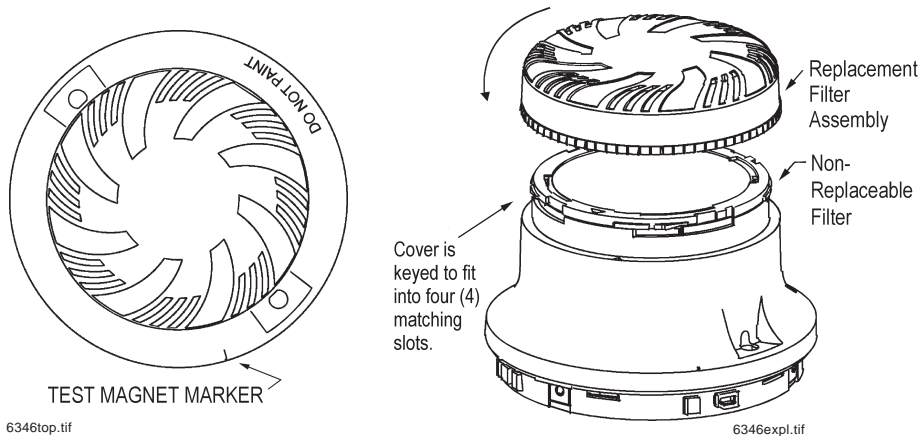
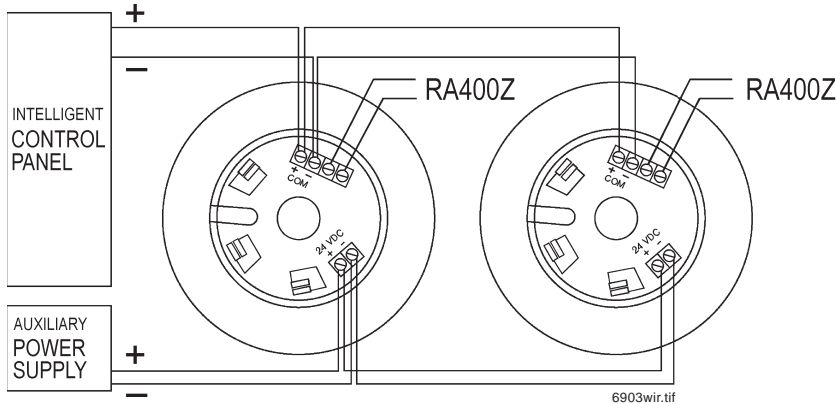
- UL Listed: file S1195.
- CSFM approved: file 7272-1288:166.
- MEA approved: file 230-01-E Vol. III.

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## Product Line Information

- SS-F** Hostile-environment smoke detector head.
- SS-BF** Flanged adapter base, 6.125" (15.558 cm) diameter.
- RF-FTX** Replacement outer filter cover assembly, box of 6.
- RA400Z** Remote LED annunciator, 3 – 32 VDC, fits U.S. single-gang electrical box.
- M02-04-01** Test magnet.
- M02-09-00** Test magnet with telescope stick.

## Wiring Diagram



The SS-F detector contains both a permanent filter and a replaceable filter, a supervised fan, and a photo-electric detector; to fit into a flanged adapter base.

## Specifications

### Size

2.875" (7.303 cm) high, 3.375" (8.573 cm) high in base; diameter 4.0" (10.16 cm), 6.125" (15.558 cm) diameter in base.

### Weight

7.3 oz. (207 g).

### Current draw, SLC

**DETECTOR:** 300  $\mu$ A @ 24 VDC (one communication every 5 seconds with LED enabled).

**Current draw, auxiliary 24 VDC** (15 to 30 VDC filtered; ripple voltage may not drop below 15 volts): 123 mA maximum, 27 mA average. **For battery calculation purposes,** average standby current is 27 mA.

### Operating voltage range

15 – 32 volts DC peak.

### Operating temperature range

0°C to 49°C (32°F to 120°F).

### Relative humidity

10% – 93%, noncondensing.

### Air velocity

4,000 ft/1219.2 meters per minute maximum.

### Maximum altitude

4,000 feet (1219.2 meters).

### Detector spacing

Gamewell recommends spacing detectors in compliance with NFPA 72. In low-air-flow applications with smooth ceilings, space detectors 30 feet (9.114 m) apart. For specific information regarding sensor spacing, placement, and special applications, refer to NFPA 72 or the *Guide to Proper Use of System Smoke Detectors*, available from [systemsensor.com](http://systemsensor.com).

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