

The professional choice in fire safety.

# **FIREX<sup>®</sup>** **Smoke Alarm**

## Duct Smoke Detectors

Universal Voltage Models

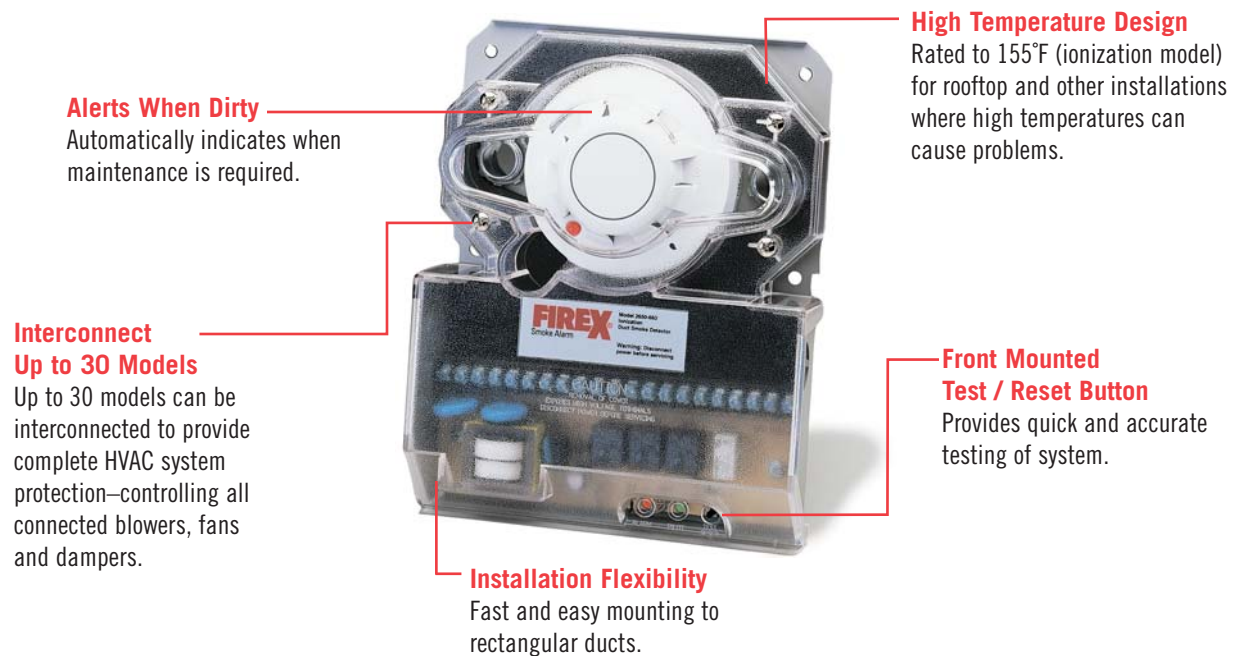
230 VAC, 115 VAC, 24 VAC or 24 VDC operation

2650-660 Ionization • 2650-661 Photoelectric

FIREX<sup>®</sup> the recognized leader in residential fire protection, brings you the latest in duct smoke detection technology. FIREX<sup>®</sup> Duct Smoke Detectors provide early detection of smoke and products of combustion present in air moving through an HVAC duct. These devices are designed for prevention of smoke recirculation in areas by the air handling systems. Fans, blowers, and complete systems may be shut down in the event of smoke detection. Our universal voltage models will operate on any one of four input voltages.

Air sampling is accomplished by two tubes, which protrude into the duct. An exhaust tube of one standard length (7") is provided with each FIREX<sup>®</sup> Duct Smoke Detector. Intake sampling tubes, which must be ordered separately, are available in three standard lengths.

Duct smoke detector mounting is accomplished by the use of a mounting template and four sheet metal screws, which are provided.

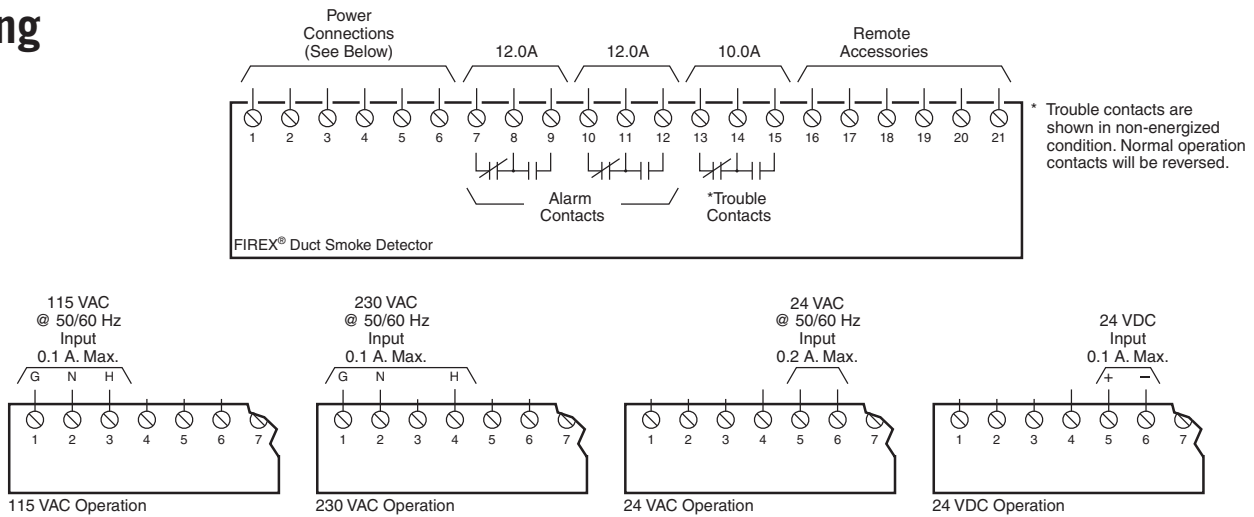


## Additional Features

- Four sheet metal screws provide easier mounting
- UL 268A Listed
- Factory set tube alignment
- Mechanical installation without cover removal
- Built-in power supply
- Installation template included
- Large terminal connection screws
- Power supervisory relay included
- Two independent form “C” alarm contacts standard
- Compatible with building automation & fire alarm systems
- Dust filtering included in detector head
- No additional screens or filters to clean
- Common or individual remote reset
- Common or individual fan shutdown relay operation
- Common or individual remote alarm indication, i.e. red LED, horn, strobe
- Common or individual head removed remote indication
- One horn/strobe operated by up to 15 detectors



# Wiring



## Product Specifications

### Item:

- 2650-660 - 115 Volt AC, 230 Volt AC, 24 Volt AC, or 24 Volt DC ionization
- 2650-661 - 115 Volt AC, 230 Volt AC, 24 Volt AC or 24 Volt DC photoelectric
- 532 - Sampling tube for 6" to 2.5' duct widths
- 533 - Sampling tube for 2.5' to 5.0' duct widths
- 534 - Sampling tube for 5.0' to 10.0' duct widths

### Power Requirements:

- 115 Volt AC operation @ 5 mA standby, 15 mA alarm
- 230 Volt AC operation @ 12 mA standby, 16 mA alarm
- 24 Volt AC operation @ 20 mA standby, 50 mA alarm
- 24 Volt DC operation @ 20 mA standby, 50 mA alarm

### Relay Contact Rating:

- Alarm contacts, two form "C" rated at 10 Amps @ 230 VAC resistive
- Trouble contact, one form "C" rated 10 Amps @ 230 VAC resistive

### Radioactive Element:

- For model 2650-660 only, Americium 241; 0.9 Micro-Curies

### Sensitivity:

- Factory set

### Air Velocity:

- 500 to 3000 feet/minute

### Approval:

- Underwriters Laboratories Listed (UL 268A)

### Ambient Temperature:

- 5°F to 155°F (-23° to 68°C) Model 2650-660
- 5°F to 120°F (-23° to 48°C) Model 2650-661

### Humidity:

- 10% to 85% R.H.

### Material:

- 18 ga. steel backbox, clear plastic ABS-94V0 cover

### Finish:

- Textured gray finish

### Maximum net weight:

- 4.0 pounds

### Mounting:

- Template and necessary hardware supplied

### Dimensions:

- 9" H x 7" W x 2.25" D (22.9 cm H x 17.8 cm W x 5.7 cm D)

## Engineers & Architects Specifications

Air duct smoke detectors shall be Firex®, item number 2650-660 ionization type (2650-661 for photoelectric). The detectors shall be listed by Underwriters Laboratories to verify operational characteristics in accordance with U.L. 268A standard and local code requirements. The detectors shall operate at an ambient temperature up to 155°F (2650-661 photoelectric, 120°F) and air velocities from 500 feet per minute to 3,000 feet per minute. A custom fitted NEMA 3R rated Firex, Weatherproof Enclosure item number 590 shall be used for indoor or outdoor locations that require protection from environmental elements.

The detector housing shall be of 18 gauge steel construction with a special ABS-94V0 high strength plastic cover for maximum durability. Complete mechanical installation of the unit must be performed without removal of detector cover to prevent dirt and debris from entering unit. The plastic cover shall be clear to allow full visibility of the internal components for future visual inspections.

Detector heads contained within the unit shall not require separate filters or screens which must be maintained or replaced to insure that unit is fully operational. The housing shall accept either

ionization or photoelectric type detector heads as required.

Terminal connections shall be of screw type and be a minimum of #6 screw for easy wiring during installation. Terminals shall be provided for remote pilot and alarm indication.

Visual indicators shall be mounted at an angle on the front housing for pilot and alarm status to allow easy viewing from lower elevations during routine inspections. A manual test/reset switch shall also be provided on the front of the detector for unit testing during standby conditions or routine inspections.

## Invensys.

### Controls Americas

515 South Promenade Avenue  
Corona California 92879-1736 USA  
Cust. Svc. Telephone +1 800 951 5526  
Cust. Svc. Facsimile +1 630 260 7299  
iccacustomerservice@invensys.com

3505 Laird Road Unit #14  
Mississauga Ontario L5L 5Y7 Canada  
Cust. Svc. Telephone +1 800 387 7978  
Cust. Svc. Facsimile +1 905 828 1265  
iccacustomerservice@invensys.com

### Technical Service

Telephone +1 800 445 8299  
Facsimile +1 630 260 723  
technicalservice@invensys.com

