# **IMPROVED PRODUCT!**

New customer driven features reduce mechanical install time by 40%



The professional choice in fire safety.

FIREX®, the recognized leader in fire protection, brings you the latest in duct smoke detection technology. FIREX® 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. The detector also offers universal voltage input compatibility on any one of four input voltages.

# **Duct Smoke Detectors**

Universal Voltage Models 230 VAC, 115 VAC, 24 VAC or 24 VDC operation 2650-760 Ionization • 2650-761 Photoelectric

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® 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 two sheet metal screws, which are provided.

# **NEW Patent pending "No-Tools Required"** Front or Rear Loading Sampling Tubes

## **Low-Flow Operation** -

Listed for low-flow applications down to 100 ft./min.

# **NEW Captive "No-Tools -**Required" Thumbscrews

Time saving convenience for installation and maintenance.

# Flashing LED on -**Detector Head**

Indicates normal operation.

## **High Temperature Design**

Rated to 158°F (ionization model) for rooftop and other installations where high temperatures can cause problems.

# **NEW Wiring Diagram**

On inside of cover for easy, permanent reference.



Quick accurate testing of system.

# **Patented Test Smoke Port Hole**

Allows for testing of sensor functionality without removing the cover.

# Interconnect Up to 30 Models

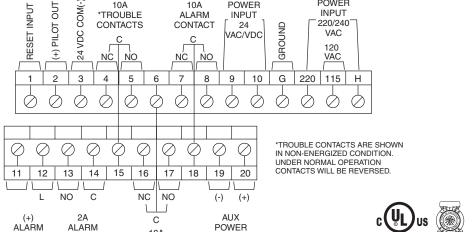
Up to 30 models can be interconnected to provide complete HVAC system protection — controlling all connected blowers, fans and dampers.

# **Additional Features**

- Two sheet metal screws provide easier mounting
- Staggered terminal blocks for easier wiring
- Factory set tube alignment
- Mechanical installation without cover removal
- Instantaneous cover removal trouble indication
- **Built-in power supply**
- Magnet test capability (magnet included)
- More wiring space than competitive models
- Footprint allows easy retrofit in many application without additional drilling
- Reset switch is also an alarm test switch competitive models require a magnet or cover removal to test at unit
- Standard interchangeable "twist-in" UL268 photoelectric or ionization heads

- 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 means 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 10 detectors

# Wiring



**POWER** 







# **Product Specifications**

2650-760 - 115 Volt AC, 230 Volt AC, 24 Volt AC, or 24 Volt DC ionization

2650-761 - 115 Volt AC, 230 Volt AC, 24 Volt AC or 24 Volt DC photoelectric

552 - Notched sampling tube for 6" to 2.5' duct widths

10Δ

ALARM

553 - Notched sampling tube for 2.5' to 5.0' duct widths

554 - Notched sampling tube for 5.0' to 10.0' duct widths

555 - NEMA 3R Weatherproof enclosure, UL 50 listed

565 - Smoke test canister with testing nozzle

## **Power Requirements:**

115 Volt AC operation @ 13.8 mA standby, 27.0 mA alarm 230 Volt AC operation @ 7.9 mA standby, 16.0 mA alarm 24 Volt AC operation @ 39.4 mA standby, 59.3 mA alarm 24 Volt DC operation @ 7.9 mA standby, 128.7 mA alarm

# **Relay Contact Rating:**

Alarm contacts, two form "C" rated at 10 Amps @ 230 VAC resistive one form "A" rated @ 2 Amps

Trouble contact, one form "C" rated 10 Amps @ 230 VAC resistive

# **Radioactive Element:**

For model 2650-760 only, Americium 241; 0.9 Micro-Curies

### Sensitivity:

POWER

Factory set

#### Air Velocity:

2650-760 100 to 4000 feet/minute 2650-761 100 to 4000 feet/minute

#### Approval:

Underwriters Laboratories Listed (UL 268A)

### **Ambient Temperature:**

32°F to 158°F (-0° to 70°C) Model 2650-760 32°F to 140°F (-0° to 60°C) Model 2650-761

#### **Humidity:**

10% to 85% R.H.

#### Material:

Gray plastic backbox, clear plastic ABS-94VO cover

#### Maximum net weight:

3.0 pounds

### **Mounting:**

Template and mounting hardware supplied

4.5" H x 13.5" W x 2.25" D (11.4 cm H x 34.3 cm W x 5.7 cm D)

# **Engineers & Architects Specifications**

Air duct smoke detectors shall be Firex®, item number 2650-760 ionization type (2650-761 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 158°F (2650-761 photoelectric, 140°F) and air velocities from 100 feet per minute to 4,000 feet per minute. A custom fitted NEMA 3R rated Firex, Weatherproof Enclosure item number 555 shall be used for indoor or outdoor locations that require protection from environmental elements.

The detector housing shall be of gray plastic construction with a special ABS-94VO 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

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.

A manual test/reset switch shall also be provided on the front of the detector for unit testing during standby conditions or routine inspections. Magnet test can be performed by placing magnet on top of housing over detector head.

## **Controls Americas**

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