

UG-5-A60 UNIGUARD DUCT SMOKE DETECTOR

Optical smoke detector for duct installation.
High efficient single sampling tube. Patented.



TECHNICAL DATA

Power supply voltage:	24V DC ($\pm 10\%$)	24V AC ($\pm 10\%$) 50-60 Hz	110-120V AC 50-60 Hz
Max. standby current:	51 mA	105 mA	30 mA (at 120V AC)
Max. alarm current:	86 mA	160 mA	39 mA (at 120V AC)
Reset time (by power down):	1 sec. max.		
Power up time:	1 min.		
Sensitivity test:	Nominal sensitivity 0,96-1,20%/ft		

Operating temperature: 32°F to 100°F (0°C to 38°C)

Storage temperature: -22°F to 158°F (-30°C to 70°C)

Humidity: 0 to 95% rH

Duct air velocity range: 100 - 4000 ft/min (0,5 - 20,32 m/s)

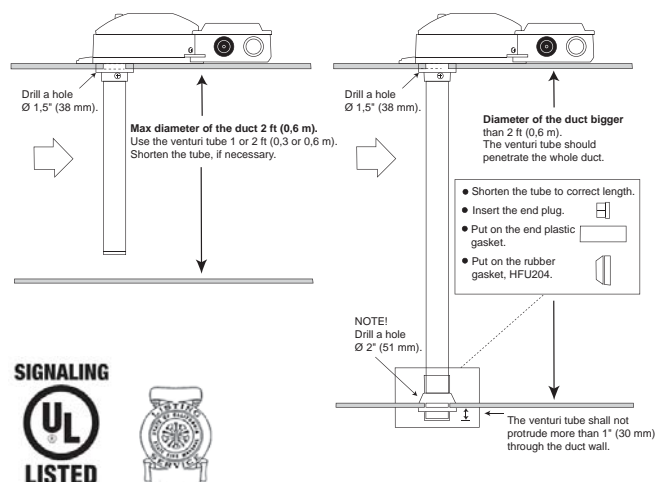
Dimensions (LxWxD): 9,49x7,68x2,68" (241x195x68 mm)

Weigh: 1,04 kg

Air sampling tube: Aluminium.

Hole diameter 1,5" (38 mm).

The length of the venturi tube shall be chosen based upon how wide the ventilation duct is. The venturi tubes are available in 4 lengths; 1, 2, 5 and 9 ft (0.3, 0.6, 1.5 and 2.8 m). When the ventilation duct is wider than Ø 2 ft (0.6 m), the venturi tube should penetrate the **whole** duct. Please see sketch below.



CHARACTERISTICS

- **Multivoltage:** 24V AC/DC and 120V AC
- **High efficient single sampling tube**
- **Easy to install**
- **Four different mounting positions (0°, 90°, 180° or 270°) enables flexible installation. Patented.**
- **Automatic sensitivity adjustment**

FUNCTION

Smoke entering the duct system will be dispersed throughout the whole building. The Uniguard duct detectors utilizes the photoelectric sensing method and is designed to sense the existence of smoke in the duct. This design of the housing along with the detector technology is capable of detecting unsafe conditions by sampling the air through the duct. When the smoke is detected, it will emit a signal that will create the urgency for proper action to be taken to turn off circulating fans, blowers and any other auxiliary devices that are connected to the system. The actions taken will enable the management of hazardous smoke through the entire space that is being protected by the duct detection arrangement.

Uniguard has the option of operating with 24V DC/AC or 120V AC. Alarm and supervisory relay contacts are accessible to interface with control panel, HVAC control, and multiple auxiliary functions including turning off the fan.

The Uniguard can be installed on any side of the duct in four different positions: 0°, 90°, 180° and 270°.

The detector UG-5-A60 contains an intelligent controlling circuit. This circuit is adjusting the sensitivity to give an optimal function during the whole life time of the detector. When the controlling circuit can no longer compensate for contamination, a service alarm is indicated.

INSTALLATION

Uniguard detector is designed to be used in air handling systems with air velocities of 100 to 4000 ft/min (0,5 to 20,32 m/s). Duct widths from 6" to 9 ft (0.15 to 2.8 m) can be accommodated. Follow engineering specifications to ensure that the air velocity in the duct falls within these parameters. A sampling tube must be ordered to complete the installation. The sampling tube should penetrate approx. 90% of the width of the duct. Sampling tube lengths: 1 ft, 2 ft, 5 ft and 9 ft (0.3, 0.6, 1.5 and 2.8 m).

For more information please see the Uniguard UG-5-A60 Installation and maintenance manual.

ORDERING EXAMPLE

Item code

UG-5-A60

ST1

ST2

ST5

ST9

Designation

Duct smoke detector

Sampling tube length: 1 ft (0.3 m)

Sampling tube length: 2 ft (0.6 m)

Sampling tube length: 5 ft (1.5 m)

Sampling tube length: 9 ft (2.8 m)

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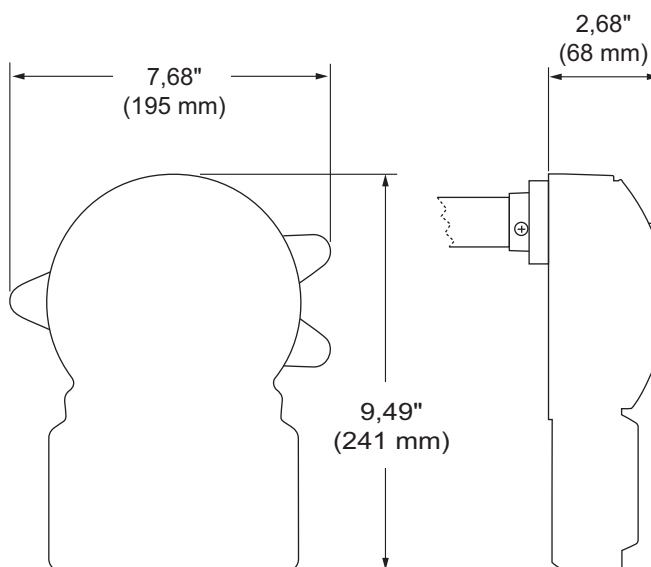


CONTACT RATINGS

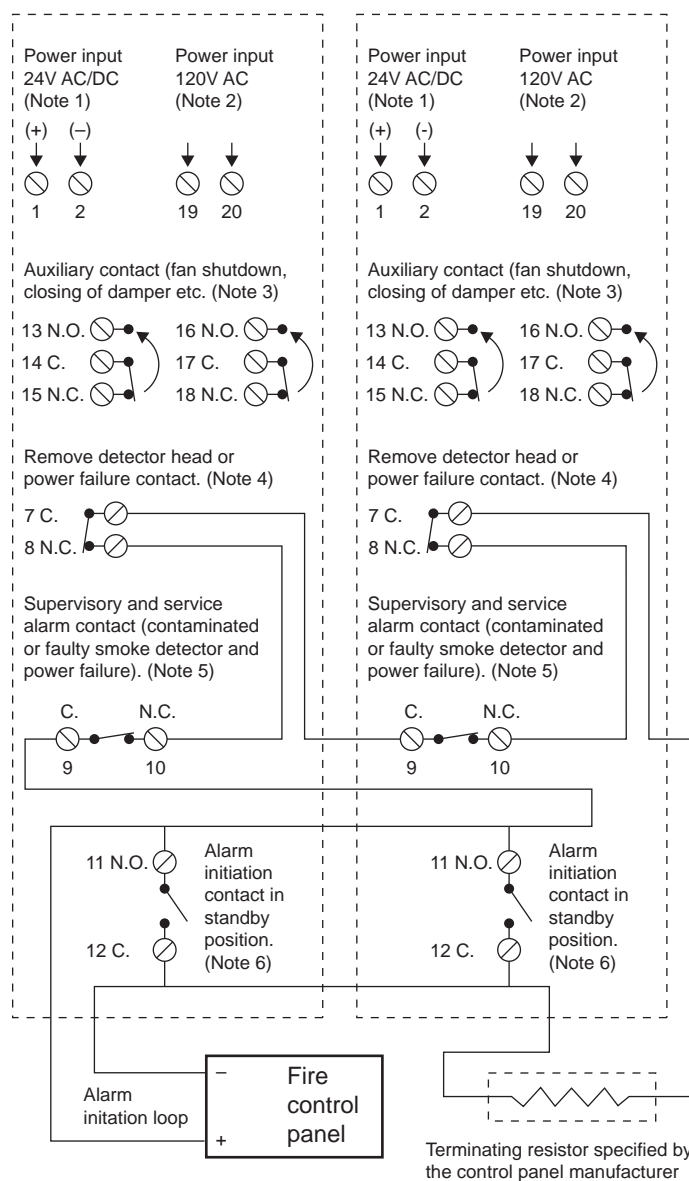
Contact ratings	
Alarm initiation contacts (SPST)	2,0 A @ 30V DC (resistive)
Supervisory contacts (SPST)	2,0 A @ 30V DC (resistive) 2,0 A @ 125V AC (resistive)
Service alarm contacts (SPST)	2,0 A @ 30V DC (resistive)
Alarm auxiliary contacts (DPDT)	10 A @ 30V DC (resistive) 10 A @ 250V AC (resistive) ½ HP @ 240V AC ¼ HP @ 120V AC

DIMENSIONS

Inches / (mm)



WIRING DIAGRAM



SIGNALING

