# **RE-428DU - C**

# **Duct Smoke Detector**



### **Product Overview:**

Smoke entering the duct system will be dispersed throughout the whole building. The RE-428DU-C 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 send out a signal that will create the proper action to be taken to turn off circulating fans, blowers and any other auxiliary devices that are connected to the system through Fire Alarm Control Panel. The actions taken will enable the management of hazardous smoke through the entire space that is being protected by the duct detection arrangement.

This detector can be installed on any side of the duct.

The detector RE-428DU-C contains an intelligent controlling circuit. The circuit adjusts the sensitivity to give an optimal function throughout the entire life of the detector.

#### **Features:**

- > High efficient single sampling tube
- Easy to install
- One-pipe air sampling system
- Patented venturi pipe and duct housing
- > Test hole on cover
- Simple installation
- Simple service and maintenance

# **Electrical Specification:**

Operating Voltage :  $9 \sim 33 \text{V DC}$ , Operating Temperature :  $-10 \,^{\circ}\text{C}$  to  $37.8 \,^{\circ}\text{C}$ Storage Temperature :  $-10 \,^{\circ}\text{C}$  to  $60 \,^{\circ}\text{C}$ 

Humidity : 0 - 95% RH, non-condensing

Remote Output : 15mA maximum open collector

Smoke Sensitivity :  $(1.96 \pm 0.76)$  % / ft Air Velocity : 0 - 4000 fpm.

Dimensions : (241 L X 195 W X 68 D) mm

Weight : 1.04 kg

Air Sampling Tube : Aluminium. ( Hole Diameter 1.5" (38 mm)).



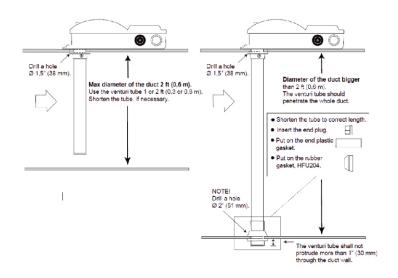
### **Installation:**

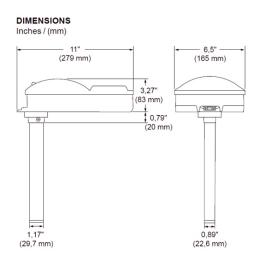
RE-428DU-C detector is designed to be used in air handling systems with air velocities of 100 to 4000 ft/min (0,5 to 20,32 m/s). Duct widths from 6" to 108" (0.15 to 2.8 m) can be accommodated. Follow engineering specifications to ensure that the air velocity in the duct falls within these parameters. A sampling tube must be ordered separately to complete the installation. The sampling tube should penetrate approximately 90% of the width of the duct. Sampling tube length: 2 ft (0.6m).

At velocities below 300ft./min the diverter model RE-428DU-DV (ordered separately) needs to be installed for normal operation. For velocities above 300ft./min the diverter is not required for normal operation. For more information please see the RE-428DU-C Installation and maintenance manual.

# **Air Sampling Tube:**

The length of the venturi tube shall be chosen based upon how wide the ventilation duct is. The venturi tube is available in length of 2ft (0.6m). When the ventilation duct is wider than  $\emptyset$  2 ft (0.6 m), the venturi tube should penetrate the whole duct. Please see sketch below. Hole diameter 1.5" (38 mm).





# **Ordering Information:**

Model	Description
RE-428DU-C	Conventional Duct Smoke Detector
RE-428DU-S2	Sampling tube length: 2 ft (0.6 m)

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