

# RE-428DU 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 give 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. This circuit is adjusting the sensitivity to give an optimal function during the whole life time 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 ~ 33V DC
Operating Temperature	:	-10 °C to 50 °C
Humidity	:	0 - 95% RH, non-condensing
Reset Voltage	:	less than 1V
Start-Up Current	:	120 $\mu$ A.
Alarm Current	:	40 mA.(Max).
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).

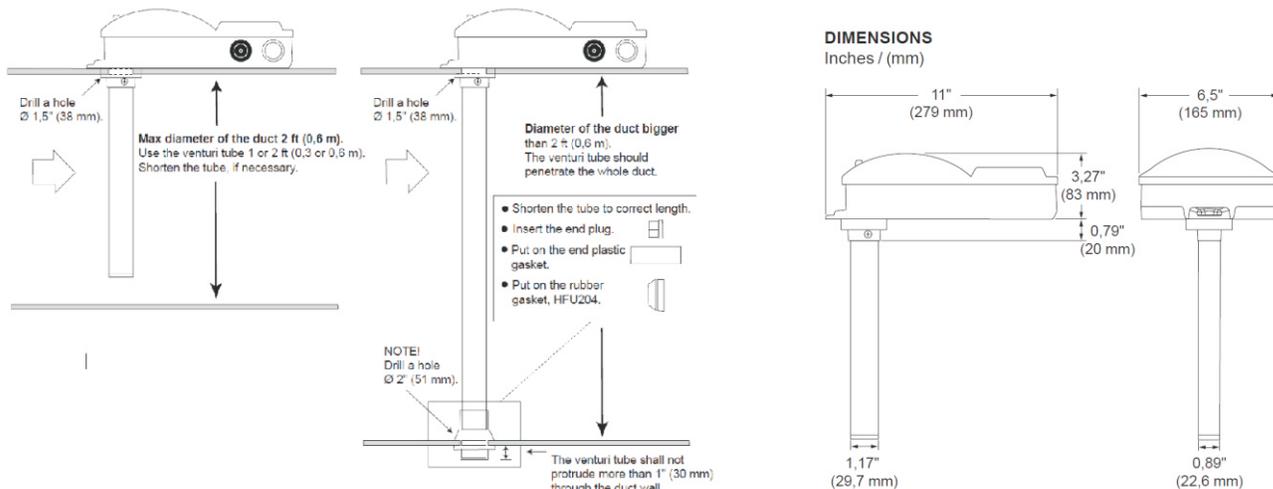
## Installation

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 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).

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 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. Hole diameter 1,5" (38 mm).



## Ordering Information

Model	Description
RE-428DU-C	Conventional Duct Smoke Detector
RE-428DU-S	Addressable Duct Smoke Detector
RE-428DU-DV	Diverter
RE-428DU-S1	Sampling tube length: 1 ft (0.3 m)
RE-428DU-S2	Sampling tube length: 2 ft (0.6 m)
RE-428DU-S5	Sampling tube length: 5 ft (1.5 m)
RE-428DU-S9	Sampling tube length: 9 ft (2.8 m)

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