Intelligent Air Duct Smoke Detector

Model DH-2000

FEATURES

- *Accommodates Photoelectric or Ionization Distributed Intelligent Detectors*
- *Easily mounts to round or rectangular ducts 8 inches to 12 feet wide*

- *Air Verlocity rating 500 to 4000 FPM*
- *Clear Lexan cover for easy viewing of smoke detector status and cleanliness*
- *UL Listed/FM Approved*

DESCRIPTION

The DH-2000 Air Duct smoke detector is designed for detecting particles of combustion in air handling systems. Upon smoke detection, the integral detection device will signal the PEGAsys™ control unit to which it is connected. The PEGAsys control unit can control a variety of HVAC equipment such as fans and dampers.
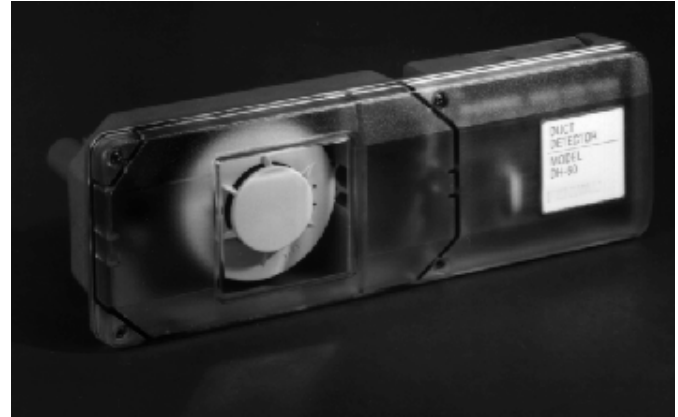
The duct detector housing accepts the SmartOne® Intelligent CPD-7052 ionization and PSD-7152 photoelectric detectors. A transparent Lexan cover over the detection chamber allows visual inspection of the duct detector's chamber and internal detector status. Sampling air in HVAC ducts is accomplished with the use of sampling tubes which extend into the HVAC duct.

APPLICATION

The DH-2000 duct detector is suited for use in commercial, industrial, institutional and residential fire alarm applications. The unit is compatible with PEGAsys control units which employ the exclusive SmartOne series of Distributed Intelligent loop devices. The PEGAsys control systems utilize the receiver/transmitter module (RX/TX). Each RX/TX can communicate with up to 255 SmartOne sensors or addressable monitor/control modules.

The circuitry may be either Class B, Style 4 or Class A, Style 6 or 7 utilizing No. 18 wiring as a minimum. Class B, Style 4 permits unlimited "T" tapping. Class A, Style 7 requires the use of isolator modules which protect the RX/TX (SLC) from wire to wire short conditions.

The DH-2000 will accommodate all ducts with air velocities between 500 to 4000 feet per minute. Both the photoelectric (PSD-7152) and the ionization (CPD-7052) smoke detector, along with the duct housing, will operate over this entire range. The duct detector is easily mounted to both rectangular and round ducts from 8 inches to 12 feet wide.
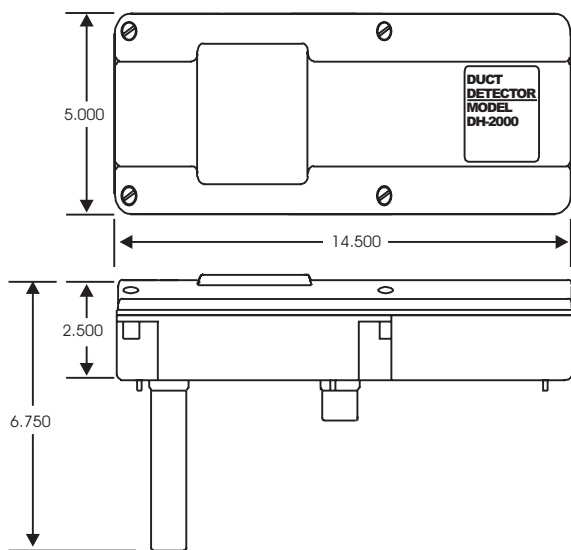
⚡ **WARNING** When used with the DH-2000 unit, both the photoelectric (PSD-7152) and ionization (CPD-7052) detectors must be configured for duct application when programmed in the control unit.

SAMPLING TUBES

The DH-2000 duct detector operation is based upon an air sampling principle. Two sampling tubes extend into the HVAC duct to transport air from the inside of the duct into the duct detector's sensing chamber and then exhaust it back out into the duct. If the sampled air contains a concentration of smoke greater than or equal to the alarm threshold of the smoke detector, the smoke detector will transmit an alarm signal to the control unit.

The duct detector's inlet supply sampling tube is selected according to the size of the HVAC duct. The unit's exhaust tube is molded into the housing to simplify installation.

SMARTONE® DETECTOR SPECIFICATION

Detector Models:	CPD-7052 and PSD-7152
Input Voltage:	16.5 to 27.5 Vdc
Standby Current CPD-7052:	400 µA, typical
Alarm Current CPD-7052:	425 µA, typical
Standby Current PSD-7152:	400 µA, typical
Alarm Current PSD-7152:	425 µA, typical
Maximum Number of Detectors per SLC:	255

LED Pulse Modes:

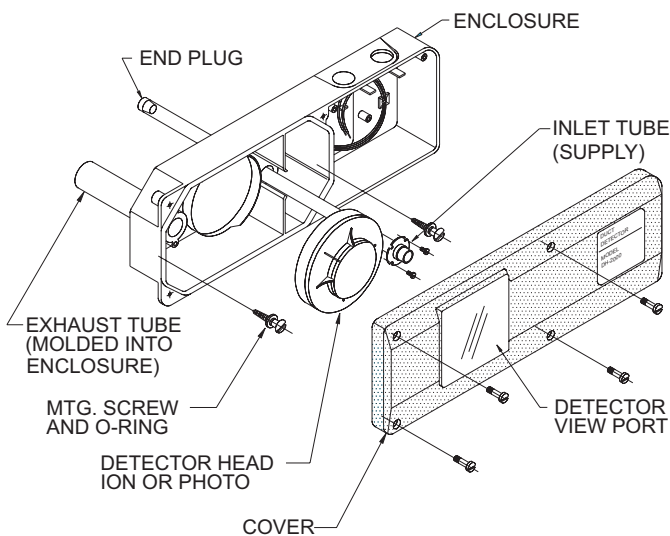|	
Normal:	9 seconds
Trouble:	LED is extinguished
Alarm:	2 Seconds
EMI Immunity:	Exceeds UL 268A requirements

Note: The SmartOne Intelligent detectors are only compatible with control units which employ the RX/TX loop controller.

OUTLINE DIMENSIONS

ORDERING INFORMATION

Part Number	Description
70-403001-152	Duct detector with SmartOne® Photo-electric Detector included DH-2000PSDI
70-403001-052	Duct detector with SmartOne® Ioniza-tion Detector included DH-2000CPDI
70-403001-100	Duct detector housing without a detector
70-402001-100	SmartOne® Ionization Detector Head CPD-7052
71-402001-100	SmartOne® Photoelectric Detector Head PSD-7152
06-129500-001	12 inch sampling tube (for ducts less than 2 ft.)
06-129500-002	24 inch sampling tube (for ducts between 2 and 3 ft.)
06-129500-003	48 inch sampling tube (for ducts between 3 and 4 ft.)
06-129500-004	72 inch sampling tube (for ducts between 4 and 6 ft.)
06-129500-005	96 inch sampling tube (for ducts between 6 and 8 ft.)
06-129500-006	120 inch sampling tube (for ducts between 8 and 10ft.)
06-129554-001	Exhaust tube kit

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