

Air Duct Smoke Detector

Effective: August 2002

Model DH-60 (2W) for 2-Wire Applications

FENWAL®

70.62

FEATURES

- **Lower Cost Two Wire Detector for Connection to Fire Alarm Control Panel Initiating Circuits**
- **Accommodates Fenwal Ionization or Photoelectric Smoke Detectors**
- **Remote Indication and Test Capabilities**
- **Easily Mounts to Round or Rectangular Ducts 8 Inches to 12 Feet Wide**
- **Air Velocity Rating 500 to 4000 FPM**
- **Clear Lexan Cover for Easy Viewing of Smoke Detector Status and Cleanliness**
- **UL 268A Listed File S1064**
- **Factory Mutual Approved**
- **CSFM Listed**
- **NYC MEA Listed**
- **City of Los Angeles Approval #RR8318**
- **3 Year Warranty**

DESCRIPTION

The Fenwal DH-60 (2W) Air Duct smoke detector is designed for detecting particles of combustion in air handling systems. The DH-60 (2W) unit is designed to be connected to the initiating circuit of an Underwriters Laboratories listed compatible fire alarm control panel. Upon detection of smoke levels at the set point of the detector, the DH-60 (2W) will put the control panel into alarm. The alarmed panel may then control a variety of devices, such as HVAC fans and dampers, to prevent the spread of smoke throughout the facility.

The duct detector housing accepts the CPD-7051D ionization or PSD-7155D photoelectric smoke detectors. A transparent Lexan cover over the detection chamber allows visual inspection of the duct detector chamber and the internal smoke detector status. Sampling air in HVAC ducts is accomplished with the use of sampling tubes which extend into the HVAC duct.

Outputs are provided which can accommodate remote alarm indication and remote test. Fenwal offers a line of remote accessories which work in conjunction with the duct detectors.



APPLICATIONS

The Fenwal DH-60 (2W) duct detector is suited for use within HVAC systems in commercial, industrial, and institutional fire alarm applications.

The DH-60 (2W) will accommodate all ducts with air velocities between 500 and 4000 feet per minute. Both the photoelectric (PSD-7155D) or the ionization (CPD-7051D) smoke detector with the duct housing will operate over this entire air velocity range. The duct detector is easily mounted to both rectangular and round ducts from 8 inches to 12 feet wide.

SAMPLING TUBES

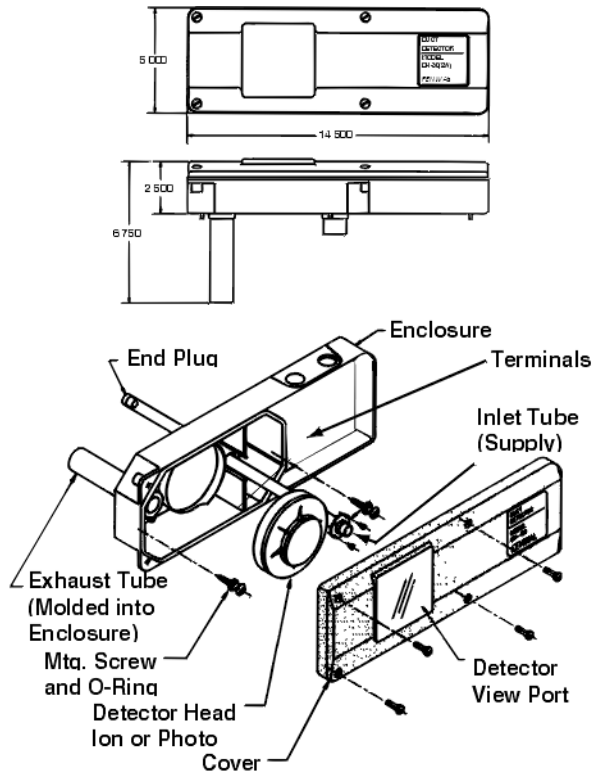
Duct detector operation is based upon an air sampling principle. Two tubes extend into the HVAC duct to transport air from inside the duct into the detector sensing chamber and back out to the duct. If the sampled air contains a concentration of smoke greater than or equal to the alarm threshold of the internal smoke detector, the unit will go into alarm.

The duct detector inlet supply sampling tube is selected according to the size of the HVAC duct. No exhaust tube is required. The unit exhaust tube is molded into the housing to simplify installation.

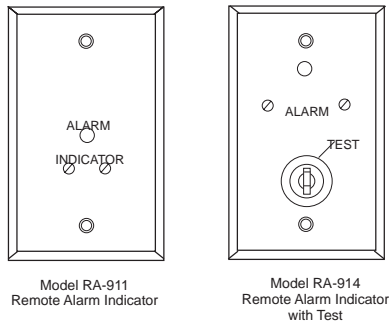
REMOTE INDICATORS/CONTROLS

A series of easily installed remote indicators are available to add versatility and flexibility to the DH-60 (2W) duct housing. These attractive and functional devices provide convenient status information along with remote test capabilities. The remote indicators are helpful when the detector is out of view or located in hard-to-get-at locations.

DIMENSIONAL/EXPLODED VIEW DRAWING



REMOTE INDICATORS



ELECTRICAL SPECIFICATIONS

Table 1. Input Voltage and Current Ratings

POWER SOURCE INPUT VOLTAGE	AVERAGE STANDBY CURRENT (NO ACCESSORIES)	MAXIMUM STANDBY CURRENT (NO ACCESSORIES)	MAXIMUM ALARM CURRENT (MAX. ACCESSORIES)
24 Vdc RANGE 10.2-38.6	PSD-7155D:55µA CPD-7051D:45µA	70 µA	100 mA (limited by panel)

UL compatibility ID: FE52A

Note: Please contact Fenwal, for a list of UL compatible fire alarm control panels.

Table 2. Remote Indicator Current Rating

MODEL	STANDBY	ALARM
RA-911	0mA	20mA
RA-914	0mA	20mA

ORDERING INFORMATION

COMPONENT	PART NUMBER
Duct detector housing with photoelectric smoke detector included (2 wire) DH-60(2W)PSD	70-600000-255
Duct detector housing with ionization smoke detector included (2 wire) DH-60(2W)CPD	70-600000-251
Duct detector housing without a smoke detector (2 wire) DH-60(2W)	70-600000-200
Ionization Detector Head CPD-7051D	70-510000-060
Photoelectric Detector Head PSD-7155D	71-510000-060
Remote Alarm Indicator RA-911	70-200000-911
Remote Alarm Indicator with Test RA-914	70-200000-914
12 inch sampling tube (for ducts less than 2 ft.)	06-129500-001
24 inch sampling tube (for ducts between 2 to 3 ft.)	06-129500-002
48 inch sampling tube (for ducts between 3 to 4 ft.)	06-129500-003
72 inch sampling tube (for ducts between 4 to 6 ft.)	06-129500-004
96 inch sampling tube (for ducts between 6 to 8 ft.)	06-129500-005
120 inch sampling tube (for ducts between 8 to 12 ft.)	06-129500-006
Optional Exhaust tube kit	06-129554-001
Sensitivity Tester (ST-011)	70-500000-002
Spare Key for RA-914	06-118012-001
Test Magnet	06-117883-001
Installation and Instruction Manual	70.60



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Protection Systems

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