

DESCRIPTION

The DH100 Innovair Series four-wire duct detectors offer innovations in installation, operation and maintenance. The unit is capable of controlling up to ten (10) air handling systems when interconnected with up to nine other detectors. A unique, patented “cover missing” signal provides twenty minutes for testing and maintenance before creating a trouble signal if the cover is still missing. An integral filter system reduces dust and residue effects on the detector and housing.

Continuous Electronic Monitoring ensures that the sensor board is installed, powered and operating above its minimum sensitivity level.

The DH100 series mounts directly on round or rectangular ducts from one to twelve feet wide and are rated for air velocities from 500 to 4,000 FPM. The Innovair detectors are backward-compatible with all current sampling tubes and accessories, such as remote annunciators and test stations.

Installation is simplified by means of captured cover screws, a slimmer profile housing, lighter weight design and exterior mounting tabs.

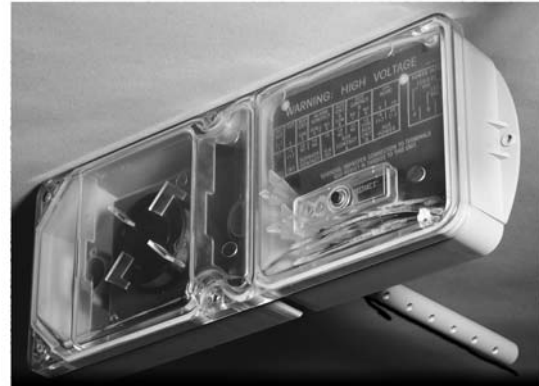
Maintenance is likewise simplified with easily replaceable UL recognized power and sensor boards, reducing repair time and costs.

CONSTRUCTION

The housing is made of rugged Noryl plastic with a clear Lexan cover.

Included with each unit is a patented telescoping sampling tube for use in ducts ranging from 12 to 18 inches wide. The tube length is set with a screw.

Terminal connections will accommodate 12 to 18 AWG wire and provide a barrier that separates high and low voltage terminals to allow the DH100 to meet or exceed code requirements.



FEATURES

- Four-wire Detector Compatible with all UL Listed 24V Control Panels**
- Telescoping Sampling Tube**
- Integral Reset Button**
- 500 to 4,000 ft/min Air Velocity Range**
- Ion or Photoelectric Detection**
- Remote Test Station (Optional)**
- Remote Sounder (Optional)**
- Cover Tamper Trouble Signal**
- Two Form C Relay Contacts**
- Easy Mounting on Round or Rectangular Ducts from 1 to 12 Feet Wide**
- Outside Mounting Tabs**
- Interconnectability for multi-fan shutdown (Up to Ten Air Handlers)**

TECHNICAL INFORMATION

Voltage	Standby current	Alarm current
24 VDC	.015 amp.	.070 amp.
24 VAC	.035 amp. RMS	.125 amp. RMS
120 VAC	.025 amp. RMS	.035 amp. RMS
240 VAC	.015 amp. RMS	.015 amp. RMS

Operating/Installation temperature	32 to 131° F (0 to 5° C)
Relative humidity	10 to 93% (non-condensing)
Air velocity range	500 to 4,000 ft/min
Dimensions	14 3/8" L x 5 1/2" W x 2 3/4" D (37 cm x 14 cm x 7 cm)
Weight	3.75 lbs (1.7 kg.)

Specifications are provided for information only, are not intended to be used for installation purposes, and are believed to be accurate. However, no responsibility is assumed by Gamewell-FCI for their use. Specifications subject to change without notice. © 2006 All Rights Reserved.

TESTING

Sensitivity testing can be performed by one of the following methods:

- Place a magnet on the “PLACE MAGNET HERE TO TEST” locator on the sticker on the bottom of the housing. The detector should alarm within 30 seconds. The red LED on the detector will light.
Reset: Push the reset button on the front cover. The green LED will pulse every ten seconds indicating the detector is present, receiving power, and operating above its minimum sensitivity.
- **Using the RTS451 Remote Test Station -** Place a magnet to either side of the LED of the test station. The detector should go into alarm and light the red LED on the test station within 40 seconds.

- **Reset:** Insert a 1/8" dia. rod or small screw-driver head into the reset hole until the red LED extinguishes.

Using the RTS451KEY Remote Test Station - Insert the key and turn clockwise to the “TEST” position until the detector goes into alarm and the red LED lights on the test station. Turn the key back to the “ON” position and remove.

Reset: Turn the key counterclockwise to the “RESET” position and hold until the detector resets and the red “Alarm” LED turns from red to green. Turn the key to “ON” position and remove.



RTS-451 KEY



APA-451



RA400Z

ORDERING INFORMATION

Model	Description
DH100ACDCLP	Photoelectronic duct detector, 4-wire
DH100ACDCI	Ionization duct detector, 4-wire
A5069	Replacement photoelectronic sensor board
A5052	Replacement ionization sensor board
A5064	Replacement 4-wire power board
ST-1.5	Sampling tube for 1' - 2' duct widths
ST-3	Sampling tube for 2' - 4' duct widths
ST-5	Sampling tube for 4' - 8' duct widths
ST-10	Sampling tube for 8' - 12' duct widths
RTS451	Remote test station, Test & Reset Switch with Alarm LED. Mounts on single gang box.
RTS451KEY	Key-activated Remote Test Station, Test & Reset Switch with Alarm LED. Mounts on single gang box.
APA451*	Annunciator with sounder, Alarm & Power LEDs.
RA400Z	Remote annunciator with Alarm LED. Mounts on single gang box.

* For applications not requiring a control panel.

IMPORTANT INFORMATION

The National Fire Protection Association has established that **DUCT DETECTORS MUST NOT BE USED AS A SUBSTITUTE FOR OPEN AREA DETECTOR PROTECTION** as a means of providing life safety. Nor are they a substitute for early warning on a building's regular fire detection system. FCI supports this position and strongly recommends that the user read NFPA Standards 90A, 72, and 101. For additional details, **refer to the INSTALLATION AND MAINTENANCE INSTRUCTIONS which are shipped with each detector.**