



by Honeywell

HFS-D Intelligent Non-Relay Photoelectric Duct Smoke Detector

Description

The HFS-D intelligent non-relay photoelectric duct smoke detector features a pivoting housing that fits both square and rectangular footprints that are capable of mounting to a round or rectangular duct. The HFS-D is compatible with the Gamewell-FCI Identiflex 100 addressable fire alarm control panel and it is flexible enough to fit mounting configurations from square to rectangular and everything in between.

This unit senses smoke in the most challenging conditions, operating in airflow speeds of 100 to 4000 feet per minute, temperatures of -4°F to 158°F, and a humidity range of 0 to 95 percent (non-condensing).

An improved cover design isolates the sensor head from the low-flow feature for simple maintenance. A cover tamper feature was added to indicate a trouble signal for a removed or improperly installed sensor cover. The housing provides a 3/4-inch conduit knockout and ample space to facilitate easy wiring and mounting of the HFS-MR relay module.

The HFS-D can be customized to meet local codes and specifications without additional wiring. The new HFS-D is compatible with various remote test accessories.

WARNING: Duct smoke detectors have specific limitations.

DUCT SMOKE DETECTORS ARE:

NOT a substitute for an open area smoke detector,
NOT a substitute for early warning detection, and
NOT a replacement for a building's regular fire detection system.

Refer to NFPA 72 and 90A for additional duct smoke detector application information.

Intelligent Non-Relay Photoelectric Duct Smoke Detector



HFS-D Intelligent Non-Relay Photoelectric Duct Detector

Features

- Photoelectric, integrated low-flow technology (HFS-DPR detector head included)
- Air velocity rating from 100 ft/min. to 4000ft/min. (0.5m/s to 20.32m/sec)
- Versatile mounting options: square or rectangular configuration
- Broad ranges for operating temperature (-4°F to 158°F) and humidity (0% to 95% non-condensing)
- Patented sampling tube installs from front or back of the detector with no tools required
- Cover tamper signal
- Increased wiring space with a newly added 3/4-inch conduit knockout
- Available space within housing to accommodate mounting of relay module
- Easily accessible code wheels on sensor head
- Clear cover for convenient visual inspection
- UL® 268A Listed
- Remote testing capability
- Requires com line power only

An ISO 9001-2000 Company



GAMEWELL-FCI

12 Clintonville Road, Northford, CT 06472-1610 USA • Tel: (203) 484-7161 • Fax: (203) 484-7118

Specifications are for information only, are not intended for installation purposes, and are subject to change without notice. No responsibility is assumed by Gamewell-FCI for their use.

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Accessories

System Sensor provides system flexibility with a variety of accessories, including two remote test stations and different means of visible and audible system annunciation. As with our duct smoke detectors, all duct smoke detector accessories are UL® Listed.



Figure 1 - RTS151 (UL S2522)



Figure 2 - RA100Z (UL S2522)



Figure 3 - RTS151KEY (UL S2522)

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Specifications

Architectural/Engineering Specifications

The air duct smoke detector shall be an HFS-D Intelligent Non-Relay Photoelectric Duct Smoke Detector. The detector housing shall be UL listed per UL 268A specifically for use in air handling systems. The flexible housing of the duct smoke detector fits both square and rectangular footprints. The detector shall operate at air velocities of 100 ft/min. to 4000 ft/min. (0.5 m/sec to 20.32 m/sec). The unit shall be capable of providing a trouble signal in the event that the sensor cover is removed or improperly installed. It shall be capable of local testing via magnetic switch or remote testing using the RTS151KEY remote test station. Terminal connections shall be of the strip and clamp method suitable for 12–18 AWG wiring.

Physical Specifications

Size	
Rectangular:	5" W x 14.38" L x 2.5" D (12.7 W x 37 L x 6.6 D cm)
Square:	9" W x 7.75" L x 2.5" D (22.9 W x 19.7 L x 6.35 D cm)
Weight:	1.6 lb (0.73 kg)
Operating Temperature Range:	–4°F to 158°F (–20°C to 70°C)
Storage Temperature Range:	–22°F to 158°F (–30°C to 70°C)
Operating Humidity Range:	0% to 95% relative humidity (non-condensing)
Air Duct Velocity:	100 to 4000 ft/min (0.5 to 20.32 m/s)

Electrical Ratings

Please see detector head installation manual for electrical specifications.

Accessory Current Loads at 24 VDC

Device	Standby	Alarm
RA100Z	0 mA	12 mA max.
RTS151/RTS151KEY	0 mA	12 mA max.

Ordering Information

Part Number	Description
HFS-D	Intelligent non-relay photoelectric low-flow duct smoke detector
Accessories	
DST1	Metal sampling tube duct width up to 1ft (0.3m)
DST1.5	Metal sampling tube duct widths 1 ft to 2 ft (0.3 to 0.6 m)
DST3	Metal sampling tube duct widths 2 ft to 4 ft (0.6 to 1.2 m)
DST5	Metal sampling tube duct widths 4 ft to 8 ft (1.2 to 2.4 m)
DST10	Metal sampling tube duct widths 8 ft to 12 ft (2.4 to 3.7 m)
DH400OE-1	Weatherproof enclosure
ETX	Metal exhaust tube duct width 1ft (0.3m)
HFS-DPR	Replacement photoelectric head for duct detector
HFS-MR	Relay Module
M02-04-00	Test magnet
P48-21-00	End cap for metal sampling tubes
RA100Z	Remote annunciator alarm LED
RTS151	Remote test station
RTS151KEY	Remote test station with key

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