Reviewed for Code Compliance
Inspections Division
Approved with Conditions
Date: 06/19/17

SILENT KNIGHT
by Honeywell

SK-DU
Intelligent Air D
Smoke Detector

Detect smoke in air handling systems and air handling equipment with Silent Knight's addressable duct smoke detector

The SK-Duct Intelligent air duct smoke detector is used with SK-PhotoR (included) for detecting smoke and products of combustion present in air moving through an HVAC air handling system. When smoke is detected in a duct, the unit communicates the condition to the IntelliKnight control panel. The panel, in turn, depending on programming and wiring, turns off fans, blowers, and other devices. The duct housing allows for mounting of SK-Relay addressable relay module. Now there's even more power and flexibility available to the IntelliKnight family of products!

Description

The Model SK-Duct Air Duct Smoke Detector utilizes photoelectric technology for the detection of smoke. It provides early detection of smoke and products of combustion present in air moving through HVAC ducts in Commercial and Industrial applications.

The SK-Duct is in a heavy duty gray steel back box with a clear cover. It features a pivoting housing that fits both square and rectangular footprints capable of mounting to a round or rectangular duct. It installs quickly and easily.

The 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).

Features

- Versatile mounting options: square or rectangular configuration
- New Cover tamper signal
- LED alarm indication and communication on sensor head
- Detects and limits the spread of smoke
- Rugged steel back box with clear plastic cover
- Easy to clean
- Large terminal connection screws
- Transparent cover for convenient visual inspection
- Patented sampling tube installs from front or back of the detector with no tools required
- Available space within housing to accommodate mounting of relay module
- UL listed

SK-DUCT

Specifications

Physical

(Rectangular): 14.38 in (37 cm) Length; 5in (12.7 cm) Width; 2.5 in (6.6 cm) Depth

(Square): 7.75 in (19.7cm) Length; 9 in (22.9cm) Width; 2.5 in (6.35cm) Depth

Weight: 1.6lb (0.73kg)

Environmental

Operating Temperature: -4ºF – 158ºF (-20ºC – 70ºC)

Humidity: 0% – 95% (non-condensing)

Air Velocity

100 to 4000 ft/min (0.5 – 20.3 m/sec.)

Electrical (using SK-Photo or SK-PhotoR)

Operating Voltage:	15–32 VDC
Standby Current:	300 µA @ 24 VDC max.
Alarm Current:	6.5 mA @ 24 VDC max (with LED on)

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Model SK-DUCT
Air Duct Smoke Detector

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Engineering Specifications

The air duct smoke detector shall be a SK-Duct 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 12–18AWG wiring.

The unit housing shall be capable of mounting a relay module.

Ordering Information

SK-Duct	Intelligent non-relay duct smoke detector
SK-Photo	Addressable Photo Detector
SK-PhotoR	Addressable Photo Detector with remote test capability (included with SK-Duct)
SK-Relay	Addressable Relay Module, must be added if relay function is required, (fits in housing)

Accessories†

DST1	Metal Sampling Tube Duct Width up to 1’
DST1.5	Metal Sampling Tube Duct Widths 1’ - 2’
DST3	Metal Sampling Tube Duct Widths 2’ – 4’
DST5	Metal Sampling Tube Duct Widths 4’ – 8’
DST10	Metal Sampling Tube Duct Widths 8’ – 12’
DH400OE-1	Weatherproof Enclosure
ETX	Metal Exhaust Tube Duct width 1’
RA100Z	Remote LED Annunciator
DCOIL	Duct accessory coil, required if using with SK-Photo and not SK-PhotoR (included) with SK-Duct
RTS151	Magnetic Remote Test station
RTS151KEY	Key-Activated Remote Test station
M02-04-00	Test Magnet
P48-21-00	Replacement End Cap for Metal Sampling Tube
APA151	Remote annunciator with piezo alarm

Important Notes:

• The use of either RTS151 or RTS151KEY requires the installation of an accessory coil, DCOIL, sold separately. Please refer to the SK-Duct installation instructions for more information

• The RTS151/RTS151KEY test coil circuit requires an external 24VDC power supply which must be UL listed.

Accessory Current Loads at 24 VDC		
Device	**Standby**	**Alarm**
RA100Z	0mA	12mA Max.
RTS151	0mA	12mA Max.
RTS151KEY	12mA	12mA Max.

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This document is not intended to be used for installation purposes. We try to keep our product information up-to-date and accurate. We cannot cover all specific applications or anticipate all requirements. All specifications are subject to change without notice. For more information, contact Silent Knight 12 Clintonville Road, Northford, CT 06472-1610 Phone: (800) 328-0103, Fax: (203)484-7118. **www.silentknight.com**