

# Farenhyt

## SSDNR/SSDNRW

The SSDNR Intelligent non-relay photoelectric duct smoke detector housing and SSDNRW watertight non-relay photoelectric duct smoke detector housing are for use with Silent Knight IFP-series fire alarm control panels (FACPs).

The SSDNR and SSDNRW feature a pivoting housing that is flexible enough to fit configurations from square to rectangular. They feature low-flow technology that enables duct smoke detection throughout a broad range of airflow environments. Many difficult to solve HVAC applications occur in low airflow duct applications where reliable smoke detection is critical. These duct detectors can detect smoke at air speed velocities of 100 feet per minute or greater, while continuing the same reliable performance to 4000 feet per minute.

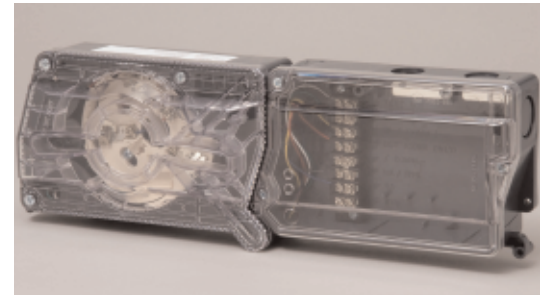
By sampling air currents passing through a duct and giving dependable performance for shutdown of fans, blowers, and air conditioning systems, the SSDNR and SSDNRW prevent the spread of toxic smoke and fire gases through the protected area.

The intelligent duct detectors communicate and are continuously monitored through the FACP signaling line circuit (SLC) loop. Detector sensitivity changes caused by dirt, temperature, or humidity are reported to the FACP, allowing compensation algorithms to maintain the detector's set sensitivity. An advanced indication at the panel identifies the detector address, allowing for selected maintenance to be performed as needed.

## Features

- Air velocity rating from 100 to 4000 feet per minute (0.5 to 20.32 meters per second)
- Support for Class B or Class A wiring
- 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
- Provides trouble signal in the event the sensor cover is removed or improperly installed
- Easy to clean
- Easily accessible code wheels on sensor head (IDP-Photo sold separately)
- UL recognized field replaceable power and sensor boards
- Transparent cover for convenient visual inspection
- UL listed
- Remote testing capability
- DNRW is listed as a watertight enclosure allowing for use in the most extreme environments

Intelligent Non-Relay Photoelectric  
Duct Smoke Detector Housing



SSDNR

## Installation

The SSDNR and SSDNRW are designed for use in air handling systems that have air velocities or 100 to 4000 feet per minute (0.5 – 20.3 m/s).

## Compatibility

The SSDNR and SSDNRW are compatible with the following FACPs:

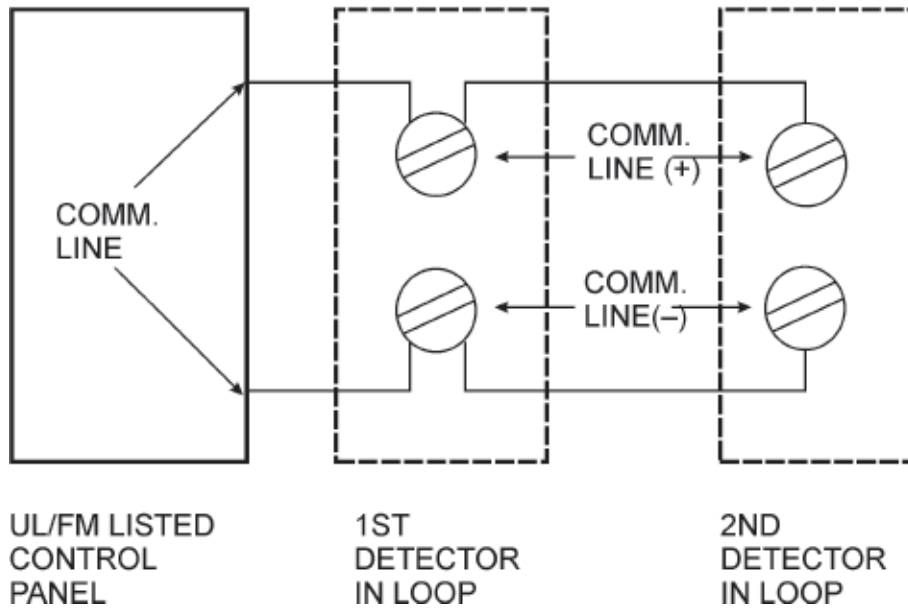
- IFP-2000/RPS-2000 Intelligent Fire Panel
- IFP-1000 Intelligent Fire Panel
- IFP-100 Intelligent Fire Panel
- IFP-50 Intelligent Fire Panel



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## System wiring diagram for SSDNR



### Specifications

#### Physical

(Rectangular): 14.38 in (37 cm) Length; 5 in (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: -4°F – 158°F (-20°C – 70°C)

Humidity: 0% – 95% non-condensing

#### Air Velocity

100 to 4000 ft/min (0.5 – 20.3 m/s)

#### Electrical

Please see detector head installation manual for electrical specifications

### Ordering Information

SSDNR	Intelligent non-relay duct smoke detector
SSDNRW	Watertight non-relay duct smoke detector
IDP-Photo	Addressable Photo Detector (not included with SSDNR)
IDP-Relay	Addressable Relay Module, must be added if relay function is required,(fits in housing)

### Accessories†

SSDST1	Metal Sampling Tube Duct Width up to 1'
SSDST1-5	Metal Sampling Tube Duct Widths 1' - 2'
SSDST3	Metal Sampling Tube Duct Widths 2' – 4'

SSDST5	Metal Sampling Tube Duct Widths 4' – 8'
SSDST10	Metal Sampling Tube Duct Widths 8' – 12'
SSDH400OE-1	Weatherproof Enclosure
SSEXT	Metal Exhaust Tube Duct width 1'
SSRA400Z	Remote LED Annunciator
SSDCOIL	Duct accessory coil, required on DNR if a remote test station is used
SSRTS451	Magnetic Remote Test station
SSRTS451KEY	Key-Activated Remote Test station
SSM02-04-00	Test Magnet
SSP48-21-00	Replacement End Cap for Metal Sampling Tube
SSAPA151	Remote annunciator with piezo alarm

† For ordering purposes, an SS has been added to the System Sensor® part numbers. Example–System Sensor PN for SSDNR is DNR.

### Important Notes:

- The use of either SSRTS451 or SSRTS451KEY requires the installation of an accessory coil, SSDCOIL, sold separately. Please refer to the SSDNR or SSDNRW installation manual for more information
- The SSRTS451/SSRTS451KEY test coil circuit requires an external 24VDC power supply which must be UL listed



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 7550 Meridian Circle Suite 100, Maple Grove, Mn 55369-4927. Phone: (800) 328-0103, Fax: (763) 493-6475.  
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