Farenhyt

IDP-Pduct/IDP-Pduct-R

The IDP-Pduct and IDP-Pduct-R are addressable photoelectric air duct smoke detectors for use with Silent Knight IFP-series fire alarm control panels (FACPs).

The IDP-Pduct and IDP-Pduct-R 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 IDP-Pduct and IDP-Pduct-R prevent the spread of toxic smoke and fire gases through the protected area.

These 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.

The IDP-Pduct and IDP-Pduct-R are designed for simplified installation and easy maintenance. The modular construction allows for easy cleaning and uncomplicated field replacement of the UL recognized power and sensor boards.

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 telescopic sampling tube
- Outside mounting tabs
- Easy and quick mounting to round or rectangular ducts from 1 foot to 12 feet (0.3 to 3.7 meters)
- Easy to clean
- Rotary address switches for fast installation
- UL recognized field replaceable power and sensor boards
- Transparent cover for convenient visual inspection
- UL 268A listed
- 3-year warranty

IDP-Pduct Features

- Outputs for remote LED display and remote test
- Incorporates zener diodes to conserve power for communication to other devices
- Requires communication line power only

MEA
384-02-E Vol. IV

IDP-Pduct-R

IDP-Pduct-R Features

- Powered outputs for remote LED, remote test, and remote sounder
- Configure as relay version or jumper to mimic the non-relay IDP-Pduct
- Patented cover tamper trouble signal
- Requires both communication line power and one of the following: 24 VAC/VDC or 120/220 VAC for operation
- Easy and quick mounting to round or rectangular ducts from 1 foot to 12 feet (0.3 to 3.7 meters)

Installation

The IDP-Pduct and IDP-Pduct-R 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

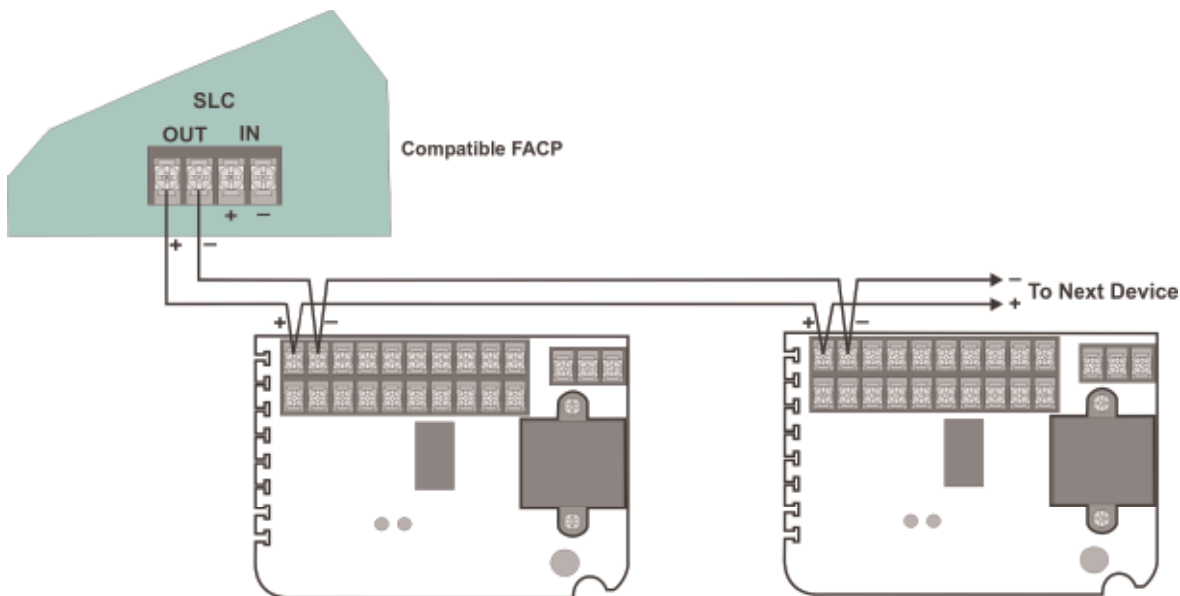The IDP-Pduct and IDP-Pduct-R are compatible with the following FACPs:

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

Wiring IDP-Pduct-R Duct Detectors

Specifications*

Physical

Height: 5.5" (14 cm)

Width: 14.4" (37 cm)

Depth: 2.8" (7 cm)

Shipping Weight:
  IDP-Pduct: 3.4 lbs (1.5 kg); IDP-Pduct-R: 3.9 lbs (1.8 kg)

Environmental

Operating Temperature: 32ºF – 120ºF (0ºC – 49ºC)

Humidity: 10% – 93% non-condensing

Air Velocity

100 to 4000 ft/min (0.5 – 20.3 m/s)

Electrical

Alarm Current: 87 mA @ 20 – 30 VDC; 182 mA RMS @ 24 VAC; 52 mA RMS @ 120 VAC; 30 mA RMS @ 220/240 VAC

P-duct Electrical

Operating Voltage: 15 – 32 VDC

Standby Current: 300 µA @ 24 VDC

P-duct-R Electrical

Alarm Aux Contacts – DPDT: 10 @ 30 VDC; 10 @ 277 VAC (0.75 power factor); 240 VA @ 249 VAC (0.4 power factor); 1/8 HP @120 VAC; 1/4 HP @ 240 VAC

Supervisory Contacts – SPST: 2.0A @ 30 VDC (resistive)

Power Supply Voltage: 20–30 VDC; 24 VAC 50–60 Hz; 120 VAC 50–60 Hz; 220/240 VAC 50–60 Hz

Standby Current: 26 mA @ 20–30 VAC; 65 mA RMS @ 24 VAC; 44 mA RMS @ 120 VAC; 25 mA RMS @ 220/240 VAC

Alarm Response Time: 3 – 10 sec

Power Up Time: 2 sec

Ordering Information

IDP-Pduct	Duct Smoke Detector
IDP-Pduct-R	Duct Smoke Detector with Relay

Accessories†

SSST-1.5	Metal Sampling Tube Duct Widths 1' – 2'
SSST-3	Metal Sampling Tube Duct Widths 2' – 4'
SSST-5	Metal Sampling Tube Duct Widths 4' – 8'
SSST-10	Metal Sampling Tube Duct Widths 8' – 12'
SSA5053SK	Replacement Photoelectric Sensor Board
SSA5067	Replacement Power Board for IDP-Pduct (without relay)
SSRA400Z	Remote LED Annunciator
SSA5060	Replacement Power Board for IDP-Pduct-R (with relay)
SSRTS451	Magnetic Remote Test
SSRTS451KEY	Key-Activated Remote Test
SSF36-09-11	Replacement Filters
SSM02-04-00	Replacement Test Magnet
SSM02-09-00	Test Magnet with Telescoping Handle
SSS08-39-01	Replacement Photo Insect Screen
SSP48-61-00	Replacement End Cap for Plastic Sampling Tube
SSP48-21-00	Replacement End Cap for Metal Sampling Tube

* Unless otherwise noted, specifications apply to IDP-Pduct and IDP-Pduct-R.

† For ordering purposes, an SS has been added to the System Sensor® part numbers. Example–System Sensor PN for SSB501 is B501.

SILENT KNIGHT
by Honeywell

Made in the U.S.A.