The SD505-DUCTR addressable duct smoke detector detects smoke and products of combustion present in air moving through an HVAC air handling system. The SD505-DUCTR is a heavy duty metal housing with a pre-installed SD505-APS photoelectric smoke detector and relay module. 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.

Now there's even more power and flexibility available to the IntelliKnight family of products. For more information on this product or to locate your nearest source, please call 800-328-0103.

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**Model SD505-DUCTR**

**Analog Duct Smoke Detector with Relay Module**

The Model SD505-DUCTR Addressable Duct Smoke Detector with Relay provides early detection of smoke and products of combustion present in air moving through an HVAC duct to prevent re-circulation of smoke into the air handling system. The SD505-DUCTR is a heavy duty metal housing with a pre-installed SD505-APS Analog Photo Electric Smoke Sensor and relay module. When smoke is detected in a duct, the unit communicates the condition to the IntelliKnight FACP. The built-in relay module, in turn, turns off fans, blowers, and other devices.

**Operation**

Air sampling is accomplished by two tubes which protrude into the duct. An exhaust tube of one standard length (7.5") is provided with the detector housing. Intake sampling tubes (ordered separately) are supplied in three standard lengths. Duct mounting is accomplished through a template and 4 sheet metal screws (provided).

**Features**

- Two-wire connection to SLC
- Detects and limits spread of smoke
- LED alarm indication and communication on sensor head
- Rugged steel backbox with clear plastic cover
- Installation template included
- No screens or filters to clean
- SD505-APS Photoelectric Smoke Detector pre-installed
- 3 standard tube lengths
- UL listed, complies with NFPA 72 and 101
- CSFM listed
- MEA Approved 429-92-E, Vol 9
- FM Approved

**Specifications**

**Physical**

Dimensions: 2¼” H x 9” L x 7¼” W

Weight: 3lbs

**Electrical**

Operating Voltage: 24 VDC

Alarm Relay Contact rating:
10A @ 24 VDC; 10A @ 115 VAC;
10A @ 240 VAC

Trouble Relay Contact Rating:
2.5A @ 30 VDC

Aux. Power Input Current:
20mA Standby, 62 mA Alarm

SLC Input Current: 0.5 mA

Max. SLS resistance: 50 Ohms

**Environmental**

Operating Temp: 32°F to 100°F
(0°C to 37°C)

Humidity: 10%-85% non-condensing

**Other Ratings:**

Air Velocity: 300 - 4000 ft/min

**Sampling Tubes:**

<table>
<thead>
<tr>
<th>Tube Code</th>
<th>Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>SD505-T2</td>
<td>2.5ft</td>
</tr>
<tr>
<td>SD505-T5</td>
<td>5ft</td>
</tr>
<tr>
<td>SD505-T10</td>
<td>10ft</td>
</tr>
</tbody>
</table>
Model SD505-DUCTR and SD505-DTS-K
Duct Smoke Detector with Relay and Remote Test Switch

Engineering Specifications

The air duct smoke detector shall be Silent Knight Model SD505-DUCTR and remote test switch shall be SD505-DTS-K. The housing shall contain a Silent Knight model SD505-APS, Photoelectric Smoke Sensor.

The duct detector shall be of metal construction. Complete mechanical installation must be able to be performed without removal of the detector cover. Terminal connections shall be screw type using a minimum of #6 screw.