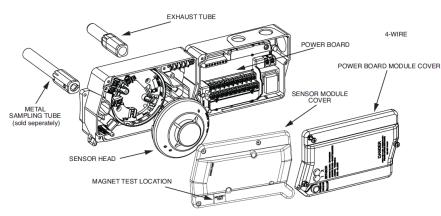


## FIRE SMOKE DAMPER WITH SMOKE DETECTOR

MODELS: FSD/CFSD/SD



The System Sensor D4120 detector is utilized to operate on 24V DC/AC or 120VAC. It utilizes 4-wire photoelectric technology for the detection of smoke. Alarm and supervisory relay contacts are available for control panel interface (alarm initiation), HVAC control, and other auxiliary functions. Auxiliary relays are provided for fan shut down. Detector interconnection provides signaling of up to 50 other detectors in the loop for multiple fan shut down. These detectors are not designed for 2-wire applications.



## FIGURE 1.2 DUCT SMOKE DETECTOR COMPONENTS

## **SPECIFICATIONS**

**Operating Temperature:** 

D4120 :  $-4^{\circ}$  to 158° F ( $-20^{\circ}$  to 70° C)

**Storage Temperature:** 

D4120 :  $-22^{\circ}$  to  $158^{\circ}$  F ( $-30^{\circ}$  to  $70^{\circ}$  C)

**Humidity:** 

0% to 95% Relative Humidity Non-condensing

Air Velocity:

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

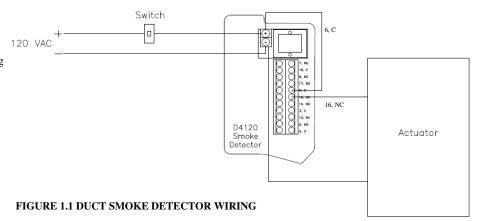
**D4120 Footprint Dimensions:** 

Rectangular - 14.38 in L x 5 in W x 2.5 in D

(37cm L x 12.7cm W x 6.36cm D) Square - 7.75 in L x 9 in W x 2.5 in D

(19.7cm L x 22.9cm W x 6.35cm D)

**D4120 Weight:** 2.5 pounds; 1.14 kg



| Electrical                           |                    |                    |                    |  |
|--------------------------------------|--------------------|--------------------|--------------------|--|
| Power supply voltage:                | 20-29 VDC          | 24 VAC 50-60-Hz    | 120 VAC 50-60 Hz   |  |
| Input capacitance:                   | 270 μF max.        | 270 μF max.        | N/A                |  |
| Reset voltage:                       | 3.0 VDC min.       | 2.0 VAC min.       | 10 VAC min.        |  |
| Reset time (with RTS451/<br>RTS151): | 0.03 to 0.3 sec.   | 0.03 to 0.3 sec.   | 0.03 to 0.3 sec.   |  |
| Reset time (by power down):          | 0.6 sec. max.      | 0.6 sec. max.      | 0.6 sec. max.      |  |
| Power up time:                       | 35 sec. max.       | 35 sec. max.       | 35 sec. max.       |  |
| Alarm response time:                 | 15 sec.            | 15 sec.            | 15 sec.            |  |
| Sensitivity test:                    | See detector label | See detector label | See detector label |  |

| Current Requirements (Using No Accessories) |                |                           |                           |  |  |
|---|----------------|---------------------------|---------------------------|--|--|
| Max. standby current                        | 21 mA @ 24 VDC | 65 mA RMS @ 24VAC 60 Hz   | 20 mA RMS @ 120 VAC 60 Hz |  |  |
| Max. alarm current                          | 65 mA @ 24 VDC | 135 mA RMS @ 24 VAC 60 Hz | 35 mA RMS @ 120 VAC 60 Hz |  |  |