Conventional Fire Alarms
Duct Detectors, Four-Wire
SuperDuct Series

Less than two inches deep, SuperDuct four-wire smoke detectors are suitable for installation in ductwork, where space is limited. SuperDuct detectors feature removable dust filters, conformally coated circuit boards, and optional water-resistant gaskets to keep contaminants away from components. They include industry standard sampling tube mounting holes to simplify retrofit applications.

SuperDuct detectors use differential sensing to prevent gradual environmental changes from triggering false alarms. A rapid change in environmental conditions, such as smoke from a fire, causes the detector to automatically signal an alarm condition but dust and debris accumulated over time does not change alarm sensitivity.

The relay output may be configured for operation independent of the duct detector. A dedicated dirty/trouble LED on each unit offers immediate at-a-glance information even when the cover is closed.

The controller can be installed up to 15 feet from detector and one controller can support up to two detectors. Up to 15 controllers can be interconnected for multiple fan shutdown.

Remote Test/Reset stations are available to provide alarm testing and indication from a remote location. Two-wire SuperDuct detectors are also compatible with 5956A remote alarm LEDs.

Features and Specifications

Detector Assembly

- Less than 2" deep
- PCB mounted photoelectric detector with on-board intelligence
- Environmental compensation with patented differential sensing
- 100 ft./min. to 4,000 ft./min. air velocity rating
- Standard RJ45 modular interconnection
- Status LEDs visible through clear cover
- Cover tamper reed switch for added security
- Standard sampling tube and mounting holes
- Install in tandem with the controller assembly, or remotely from it
- Magnet-activated test/dirty/reset switch
- No need to open the detector for installation
- Operating temperature range: -4°F to 158°F (-20°C to 70°C)

Controller

- One controller for up to two detectors
- Standard connections for easy migration
- Status LEDs visible through clear cover
- Alarm contact, trouble contact, and two 10 amp auxiliary contacts
- Interconnect up to 15 controllers for multiple fan shut-down

Ordering Information

Description	Cat. No.	Operating Voltage[1]	Auxiliary Output	Supervision Relay	Aux. Relays (2)	Alarm Initiation Relay	Sensitivity	Reset Time
Controller with Sensor (RJ45)	**SD-4WJ**	24V DC, 24V AC, 120V AC, 230V AC	18V DC nom; 0.03A max.	2A@30V DC, Form C	10A@30V DC; 10A@250V AC, Form C	N.O, 2A@30V DC	0.67 to 2.46%/ft. obscuration	2 sec.
Controller - RJ45	**SD-CJ**	24V DC, 24V AC, 120V AC, 230V AC	18V DC nom; 0.03A max.	2A@30V DC, Form C	10A@30V DC; 10A@250V AC, Form C	N.O, 2A@30V DC	0.67 to 2.46%/ft. obscuration	2 sec.
Sensor - RJ45	**SD-SJ**	24V DC, 24V AC, 120V AC, 230V AC	18V DC nom; 0.03A max.	2A@30V DC, Form C	10A@30V DC; 10A@250V AC, Form C	N.O, 2A@30V DC	0.67 to 2.46%/ft. obscuration	2 sec.
Controller - Terminals	**SD-CT**	24V DC, 24V AC, 120V AC, 230V AC	18V DC nom; 0.03A max.	2A@30V DC, Form C	10A@30V DC; 10A@250V AC, Form C	N.O, 2A@30V DC	0.67 to 2.46%/ft. obscuration	2 sec.
Sensor - Terminals	**SD-ST**	24V DC, 24V AC, 120V AC, 230V AC	18V DC nom; 0.03A max.	2A@30V DC, Form C	10A@30V DC; 10A@250V AC, Form C	N.O, 2A@30V DC	0.67 to 2.46%/ft. obscuration	2 sec.

[1]AC voltage frequency at 50/60 Hz

AC/DC · 158°F -4°F OP TEMP · UL · LC · FM APPROVED · MEA

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Accessories

Description	Cat. No.
8-inch sampling tube	**SD-T8**
18-inch sampling tube	**SD-T18**
24-inch sampling tube	**SD-T24**
36-inch sampling tube	**SD-T36**
42-inch sampling tube	**SD-T42**
60-inch sampling tube	**SD-T60**
78-inch sampling tube	**SD-T78**
120-inch sampling tube	**SD-T120**
RJ45 wiring harness kit – 15 ft.	**SD-RJ15**
RJ45 wiring harness kit – 10 ft.	**SD-RJ10**
RJ45 wiring harness kit – 5 ft.	**SD-RJ5**
Remote test station, magnetic	**SD-TRM4**
Remote test station, keyed	**SD-TRK4**
Remote LED Alarm Indicator	**5956A**
Protective housing for high humidity areas	**SD-PH**
Air velocity test kit (stoppers only, etc)	**SD-VTK**
Cover gasket kit	**SD-GSK**
Test magnet kit	**SD-MAG**
Replacement PCB/sensor kit (terminals)	**SD-4WPCBT**
Replacement PCB/sensor kit (RJ45)	**SD-4WPCBJ**
Replacement RJ45 interconnect cable	**7140126-01**

Weights and Dimensions

Cat. No.	Approx. Shipping Weight (lb.)
SD-CJ	2.4
SD-SJ	2.4
SD-4WJ	3.7
SD-CT	2.4
SD-ST	2.4
SD-T8	0.5
SD-T18	1.5
SD-T24	1.1
SD-T36	3.0
SD-T42	3.5
SD-T60	5.8
SD-T78	4.1
SD-T120	11.5

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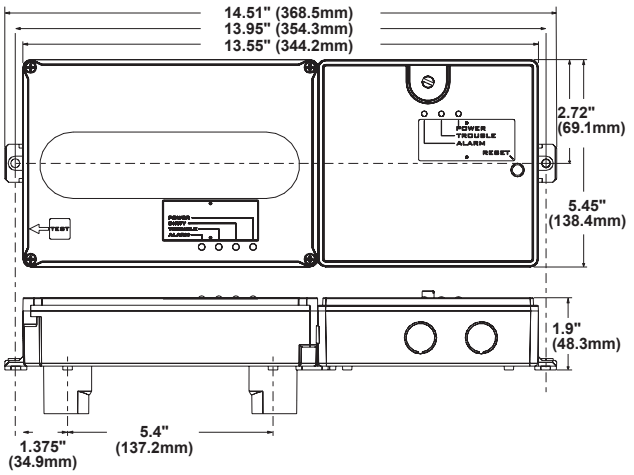
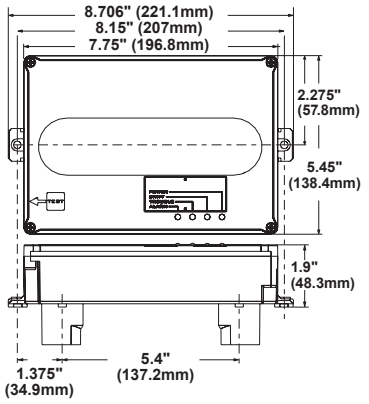
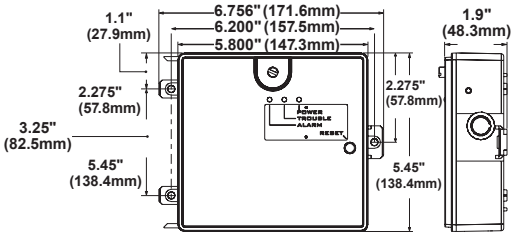
Weights and Dimensions (Continued)

Cat. No.	Approx. Shipping Weight (lb.)
SD-RJ15	1.50
SD-RJ10	1.50
SD-RJ5	0.60
SD-TRM4	1.00
SD-TRK4	1.00
5956A	1.00
SD-PH	5.50
SD-VTK	1.00
SD-GSK	0.50
SD-MAG	0.50
SD-4WPCBT	1.00
SD-4WPCBJ	1.00
7140126-01	0.50

Controller and Detector (mounted in tandem)



Detector



Controller