

Duct Smoke Detector Cross Reference

The **DUCTSD** 4-wire photoelectric duct smoke detector features a pivoting housing that fits both square and rectangular footprints and mounts to round or rectangular ductwork. This unit senses smoke in the most challenging conditions, operating in airflow speeds of 100 to 4,000 feet per minute, temperatures of -4°F to 158°F , and a humidity range of 0 to 95 percent (non-condensing). A plug-in sensor head offers simple installation and maintenance. The cover integrated smoke test port enables easy testing and maintenance.



Key Differences Between DUCTSD and D4120

1. Cover integrated smoke test port
2. NO field selectable dip switches
3. Opaque power board cover
4. Interconnect number of devices 30

1 COVER INTEGRATED SMOKE TEST PORT How to Use the Smoke Test Port

1. Put detector into Speed-Up Test mode
 - a. Press and hold Test/Reset button for 2 to 7 seconds
 - b. When in Speed-Up Test mode sensor LEDs will alternately flash Red and Green
2. Lift tethered plug sealing the smoke test port via pull tab
3. Spray canned smoke into the test port
4. Replace tethered test plug
5. Press the Test/Reset button

- ### 2 Simplified Options
- DUCTSD does NOT offer field selectable dip switches. The simplified DUCTSD offers:
1. One connected sensor
 2. Cover Tamper switch activates 7 minutes after sensor cover has been removed or improperly seated
 3. Aux Relay does not switch states on a Trouble condition

- ### 3 Opaque Power Board Cover
- Quick reference information on the inside of the power board cover.

- ### 4 Device Interconnect
- Interconnect any combination of DUCTSD and D4120 detectors, up to a maximum of 30 total devices.

CompetitiveMatrix



Feature	DUCTSD	D4120
Sensor Technology	Photoelectric	Photoelectric
Sensor Mechanics	Plug-In	Plug-In
Number of Sensors	1	1 or 2 sensors
Airflow	100 - 4000fpm	100 - 4000fpm
Product Length	14.38 inches	14.38 inches
Product Width	5 inches	5 inches
Depth	2.5 inches	2.5 inches
Housing	2 piece	2 piece
Sampling Tubes Entry	Front and rear entry	Front and rear entry
Cover Color	Black Opaque	Transparent
Cover Connectors	4 captive screws on sensor 3 captive screws on power board	4 captive screws on sensor 3 captive screws on power board
Cover Tamper Delay	7 minutes	Selectable - Instant or 7 minutes
Conduit Openings	Top: 2 x 1/2" Side 1 x 3/4"	Top: 2 x 1/2" Side 1 x 3/4"
Wire Gauge	12 gauge	12 gauge
Connection Between Sensor and PowerBoard	Co-Located - Pre-wired	Co-Located - Pre-wired
Wiring Diagram	Terminal designator by each terminal	Terminal designator by each terminal
Voltage Range	20-29VDC 24VAC 50-60Hz 120VAC 50-60Hz (DUCTSD) 220/240VAC 50-60Hz (DUCTSD240)	20-29VDC 24VAC 50-60Hz 120VAC 50-60Hz (D4120) 220/240VAC 50-60Hz (D4240)
Standby Current Consumption	21mA	21mA
Power Up Time	37 seconds (initialization complete)	37 seconds (initialization complete)
Reset Time	0.6 seconds	0.6 seconds
Relays	10A @ 30VDC/250VAC alarm 2 form C AUX 2A @ 30VDC/125VAC alarm 2A @ 30VDC/125VAC trouble	10A @ 30VDC/250VAC alarm 2 form C AUX 2A @ 30VDC/125VAC alarm 2A @ 30VDC/125VAC trouble
Sensor LED Functions	Standby: 5 sec green blink Maintenance: 5 sec Red blink Trouble: No LED indication Alarm: Solid Red	Standby: 5 sec green blink Maintenance: 5 sec Red blink Trouble: No LED indication Alarm: Solid Red
PowerBoard LED Functions	Standby: 5 sec Red blink Maintenance: 5 sec Amber Blink Trouble: Solid Amber Alarm: Solid red	Standby: 5 sec Red blink Maintenance: 5 sec Amber Blink Trouble: Solid Amber Alarm: Solid red
Shutdown on Trouble	Aux Relay does not switch states on Trouble	Selectable
Interconnection Quantity	30 units	50 units
Interconnection	Non-isolated	Non-isolated
Test Features	Cover integrated smoke test port Magnet test at sensor Pushbutton Test/Reset at PowerBoard Responds only if sensor is not in maintenance	Magnet test at sensor Pushbutton Test/Reset at PowerBoard Responds only if sensor is not in maintenance
Sensitivity Measurement	SENS-RDR	SENS-RDR
Accessories	Compatible with existing accessories	Compatible with existing accessories
Filters	None	None
Temperature	- 4°F to 158°F (-20°C to +70°C)	- 4°F to 158°F (-20°C to +70°C)
Smoke Test Port	Cover integrated smoke test port	None