D341 Four-wire Duct Smoke Detector Housings

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- ► For 1 ft (30.5 cm) to 10 ft (3 m) ducts with air velocity between 300 ft/min to 4000 ft/min (1.52 m/s to 20.3 m/s)
- ► Easy duct tube installation through the housing cuts installation time.
- ▶ Detector test and reset without removing covers
- ► Clear cover allows quick visual inspection
- ► Tube filters, dust immune smoke detector, and easy disassembly for cleaning reduce maintenance time and cost

The D341 Duct Smoke Detector Housings mount on the ducts of heating, ventilation, and air conditioning (HVAC) systems to monitor the presence of smoke in the conditioned air. The housing works with all 24 VDC or VAC or 120 VAC, UL Listed four-wire control panels. The efficient housing design samples the air passing through a duct and detects potentially hazardous conditions. When smoke is detected, the detector sends an alarm signal to the control panel or HVAC control equipment that initiates the necessary action to control air handling systems.

Functions

Alarm and Trouble Indication

A D344-RT Remote Test Kit, a D344-RL Remote Indicator Kit, or a DRA-5 Remote Annunciator can provide remote LED indication of alarm and trouble status. The red LED lights for an alarm. An open loop causes the yellow Trouble LED to light.

Air Sampling

Use the duct detector housings in air handling systems with ducts between 1 ft (30.5 cm) and 10 ft (3.05 m) wide and air velocities between 300 ft/min and 4000 ft/min (1.52 m/s to 20.3 m/s). Air is forced into

the detector through an air sampling tube, tested, and returned to the duct through an exhaust tube (supplied).

Sampling tubes should extend across the width of the duct. Bosch Security Systems, Inc. offers sampling tubes in three different sizes. Combined or cut the tubes to make other lengths. Sampling tubes over 3 ft (91.4 cm) must be supported at the end opposite the duct detector. Sampling tubes are provided with an end plug that must be installed in the open end.

System Testing

Place an external magnet on the detector housing or switch a signal from a remote test station to test the system (requires an external 24 V supply). Reset the system by power shutdown or if a D344-RT is connected, use the key-operated switch.

Certifications and approvals

Region	Certific	ation
USA	UL	UROX: Smoke-Automatic Fire Detectors (ANSI/UL 268) and UROX7: Smoke-Au- tomatic Fire Detectors Certified for Can- ada (CAN/ULC-S529)
	CSFM	see our website
Hong Kong	HKFSD	J-500/C/030

Installation/configuration notes

Compatible Products

The following products are compatible with the D341 Family Four-wire Duct Smoke Detector Housings:

Category	Product ID	Product Description
Control Panels	Works with all control panels	24 VDC or VAC or 120 VAC, UL Listed
Detector Heads	D285-DH	Photoelectric duct smoke detector head
Remote Annunciators	D344-RL	Remote indicator kit
	D344-RT	Remote test kit
	DRA-5	Remote annunciator (5 VDC)

Remote Indicators

NFPA 72 requires detectors have remote alarm indicators where duct smoke detectors are installed in concealed locations, where the detector is more than 10 ft (3 m) above the floor, or where the detector's alarm indicator is not visible to responding personnel. The optional D344-RT Remote Test Kit, D344-RL Remote Indicator Kit, or DRA-5 Remote Annunciator can satisfy this requirement.

Power Considerations

The detector housing provides one primary power source of 24 VDC, 24 VAC, or 120 VAC. Do not connect a high-voltage AC source and a low-voltage AC/DC source to the same housing.

Parts included

The D341 Four-wire Duct Smoke Detector Housing comes with:

Quant.	Component
1	D341 Duct Detector Housing
1	Exhaust tube
1	Cover gasket
2	Tube clamps with four screws
2	Foam gaskets
2	Air filters
1	Drilling template

- 1 Hardware pack
- 1 Literature pack

The D341P Duct Photoelectric Smoke Detector Kit comes with all components supplied with the D341 plus:

Quant.	Component
1	D285DH Photoelectric Duct Smoke Detector Head
1	D344-1.5 Sampling Tube

Technical specifications

Electrical

Current (operating):	24 VDC: 65 mA maximum; 24 VAC: 200 mA maximum; 120 VAC: 110 mA maximum
Voltage (operating):	24 VDC, 24 VAC, or 120 VAC

Environmental

Relative Humidity:	Up to 93% non-condensing
Temperature (operating):	+32°F to +120°F (0°C to +49°C)

Mechanical

Dimensions (H x W x D):	6.5 in. x 15.5 in x 4.25 in. (16.5 cm x 39.5 cm x 11 cm)
Material:	High-impact fire-retardant polymer plastic
Weight (housing only):	3.75 lb (1.7 kg)

Outputs

Alarm:	Form A, normally-open (NO) contacts rated for 0.5 A at 24 VDC or VAC and for 0.1 A at 120 VAC
Auxiliary:	Two Form C contacts rated for 10 A at 24 VDC or VAC or 120 VAC
Trouble:	Form A, normally-closed (NC) contacts rated for 0.5 A at 24 VDC or VAC and for 0.1 A at 120 VAC

Ordering information

D341 Duct Detector Housing

Duct detector housing with an exhaust tube, two tube clamps with screws, one cover and two foam gaskets, two air filters, a drilling template, installation instructions and mounting hardware.

Order number D341

D341P Photoelectric Duct Smoke Detector Kit

Kit comes with a D341 Four-wire Duct Smoke Detector Housing, a D285DH Photoelectric Duct Smoke Detector Head, and a D344-1.5 Sampling Tube. Order number **D341P**

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Accessories

SMK-TM Test Magnet

Used to test detectors Order number SMK-TM

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