

D263 Photoelectric Smoke and Smoke and Heat Detectors

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- ▶ 12 V or 24 V input
- ▶ Designed for commercial or residential use
- ▶ Two-wire application
- ▶ Light-emitting diodes (LEDs) indicate the status of the chamber, power, and alarm
- ▶ Removable terminal block to simplify wiring connections

The D263 family includes the following detector models:

Model	Description
D263	Two-wire
D263TH	Two-wire with 135°F (57°C) heat sensor
D263THC	Two-wire with 135°F (57°C) heat sensor and auxiliary relay
D263THS*	Two-wire with 135°F (57°C) heat sensor and sounder

* Sounders produce 85 dB at 10 ft (3 m). Each of these detector models is UL Listed and works with commercial fire protective signaling and household fire warning systems. Each model detects smoke particles produced during wood, paper, and fabric combustion.

System overview

These detector models use an infrared (IR) LED light source and a silicon photodiode to measure light in a chamber. A fine screen covers the chamber to deter insects and to reduce dust accumulation and nuisance alarms.

During a fire, smoke particles reflect light onto the photodiode. When the photodiode measurements exceed the alarm threshold, the detector signals an alarm condition. After the alarm condition clears, interrupt power at the control panel to reset the detector.

Use a D132B Reversing Relay Module to activate the sounder (85 dB at 10 ft [3 m]). When using a D132B, the LED does not latch on alarm.

Functions

Chamber Calibration Tests

Check the sensitivity and calibration of any of these detectors using a visual check, a magnet test, or a voltage measurement test.

Visual check:

When the detector's calibration is within the factory-listed range, the red alarm LED flashes once every 3.5 sec.

If the detector's calibration is out of range for more than 24 h, the red alarm LED flashes once a second.

Magnet test:

Hold a magnet horizontally against the detector for about 10 sec and observe the LED.

- If the detector is within the factory-listed calibration range, it goes into alarm and the Alarm LED latches on.
- If the detector is too sensitive, the LED rapidly flashes six times (once every half second) and the detector signals an alarm.
- If the detector is not sensitive enough, the LED slowly flashes four times, once every 2 seconds, and the detector signals an alarm.
- If the detector does not operate, it does not signal an alarm.

Voltage measurement test:

Use a D1005 Test Cable and a digital voltmeter to measure the voltage and compare the results with the factory-listed sensitivity range.

Certifications and approvals

Region	Certification	
USA	UL	UROX: Smoke - Automatic Fire Detectors (UL268 and A), UROX7: Smoke - Automatic Fire Detectors Certified for Canada (cULus),
	CSFM	see our website
	NYC-MEA	274-93-E, Vol. VII
	MSFM	
Hong Kong	HKFSD	D263THC only
	HKFSD	D263\TH\THS

Installation/configuration notes

Use smoke detectors for detection circuits that protect people. Use heat detectors for circuits that protect property.

Compatible Products

The following products are compatible with the D263 Series detectors:

Category	Product ID	Product Description
Control Panels		Bosch Security Systems makes no claim written, oral, or implied that the D263 Series detectors work with any two-wire control panels except those specified in the Control Panel Compatibility chart in <i>Technical Service Note</i> (P/N: 31866).
Modules	D132B	Reversing relay module

Mounting

The detector has a mounting plate that attaches on a standard four-inch back box.

For commercial and industrial installations in accordance with NFPA 72, space each detector 30 ft (9.2 m) apart.

Wiring

The terminal block accepts up to 12 AWG (ISO 4 mm²) wire. You can remove the terminal block from the detector for easier wiring. The terminal block snaps in and out of the detector.

Parts included

Quantity	Component
1	Detector
1	Lit pack – Installation Manual, Technical Service Note on installation

Technical specifications

Environmental Considerations

Radio Frequency Interference (RFI) Immunity:	No alarm on critical frequencies in the range of 26 MHz to 950 MHz.
Relative Humidity:	Up to 93%, non-condensing
Temperature (operating):	+32°F to +120°F (0°C to +40°C)

Mechanical Properties

Dimensions (Diameter x H):	5 in. x 2 in. (12.7 cm x 5.1 cm)
Material:	High impact, fire retardant ABS plastic

Relay Contacts

Auxiliary	Form C: 1 A, 120 VAC/30 VDC at 1 A, 30 W maximum
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Power Requirements

Current Draw (alarm):	Determined by control panel
Current Draw (standby):	0.080 mA at 12 V, 0.1 mA maximum
Current Draw (start-up):	0.12 mA
Current Draw (trouble):	0.1 mA maximum
Power-up Time:	22 sec maximum
RMS Ripple (maximum):	25% of DC input
Voltage (stand-by):	8.5 VDC to 33 VDC

Ordering information

D263 Two-Wire Smoke Detector

Two-wire photoelectric smoke detector.
Order number **D263**

D263TH Two-Wire Smoke/Heat Detector

Two-wire photoelectric smoke detector with a 135°F (57°C) heat sensor.

Order number **D263TH**

D263THC Two-Wire Smoke/Heat Detector with Auxiliary Relay

Two-wire photoelectric smoke detector with a 135°F (57°C) heat sensor and an auxiliary relay.

Order number **D263THC**

D263THS Two-Wire Smoke/Heat Detector with Sounder

Two-wire photoelectric smoke detector with a 135°F (57°C) heat sensor and a sounder.

Order number **D263THS**

Accessories

D1005 Test Cable

Connects a digital voltmeter to the detector's calibration pin for verifying that the detector is within its calibration range

Order number **D1005**

DT-2 Detector Removal Tool

Use the DT-2 to remove, replace, or test the detector head

Order number **DT-2**

TP280 Trim Plate

For retrofit and remodeling purposes; 16.2 cm (6 in.) diameter

Order number **TP280**

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