

D273THSR Four-Wire Smoke/Heat Detector with Sounder and Trouble Relay

www.boschsecurity.com



BOSCH
Invented for life



- ▶ 12 VDC or 24 VDC input
- ▶ Designed for commercial or residential use; four-wire application
- ▶ Light-emitting diodes (LEDs) indicate the status of the chamber, power, and alarm
- ▶ Removable terminal block to simplify wiring connections
- ▶ Cable connection point for voltmeter sensitivity test

The D273THSR is a four-wire smoke detector with a 135°F (57°C) heat sensor, a sounder, and a trouble relay. It is UL Listed and works with commercial fire protective signaling and household fire warning systems. It detects smoke particles produced during wood, paper, and fabric combustion.

Functions

Chamber Calibration Tests

Check the sensitivity and calibration of the detector 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 goes into alarm.
- If the detector is not sensitive enough, the LED slowly flashes four times, once every 6 seconds, and the detector goes into 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_S3019 - Smoke-automatic Fire Detectors
	UL UROX7_S3019 - Smoke-automatic Fire Detectors Certified for Canada
	CSFM 7272-1615-0134
	NYC-MEA mea_274-93-e_vol-7

Region	Certification	
	MSFM	DS250-280 Series
Hong Kong	HKFSD	J-005/C/023

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 D273THSR detector:

Category	Product ID	Product Description
Control Panels		This detector models is compatible with UL Listed four-wire control anels. Refer to the manufacturer's installation instructions to select the correct EOL resistor.
Modules	D132B	Reversing relay module

Loop Supervision

For loop supervision, install a Bosch Security Systems D275 Power Supervision Module and an EOL resistor after the last device on the loop.

Mounting

The detector has a mounting plate that attaches to 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	Literature pack

Technical specifications

Electrical

Power-up Time:	22 sec maximum
RMS Ripple:	25% of DC input maximum
Voltage (stand-by):	10 VDC to 30 VDC

Current Draw

• Alarm	96 mA maximum
• Standby	15 mA maximum

Environmental

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

Mechanical

Dimensions (Diameter x H)	5 in. x 2 in. (12.7 cm x 5.1 cm)
Material	High impact, fire retardant ABS plastic
Sounder	85 dB at 10 ft (3 m); activates on detector alarm or reverse polarity

Relay Contacts

EOL	Form A; rated at 0.5 A, 200 VDC
-----	---------------------------------

Environmental Considerations

Heat Sensor:	135°F (57°C)
--------------	--------------

Power Requirements

Sounder:	85 dB at 10 ft (3 m) Activates on detector alarm or reverse polarity
----------	---

Relay Contacts

Trouble	Form A Rated at 0.5A, 200 VDC
---------	----------------------------------

Ordering information

D273THSR Four-Wire Smoke/Heat Detector with Sounder and Trouble Relay

Four-wire smoke detector with a 135°F (57°C) heat sensor, a sounder, and a trouble relay.

Not Available.

Order number **D273THSR**

Represented by:

Americas:

Bosch Security Systems, Inc.
130 Perinton Parkway
Fairport, New York, 14450, USA
Phone: +1 800 289 0096
Fax: +1 585 223 9180
security.sales@us.bosch.com
www.boschsecurity.us

Europe, Middle East, Africa:

Bosch Security Systems B.V.
P.O. Box 80002
5617 BA Eindhoven, The Netherlands
Phone: + 31 40 2577 284
Fax: +31 40 2577 330
emea.securitysystems@bosch.com
www.boschsecurity.com

Asia-Pacific:

Robert Bosch (SEA) Pte Ltd, Security
Systems
11 Bishan Street 21
Singapore 573943
Phone: +65 6571 2808
Fax: +65 6571 2699
apr.securitysystems@bosch.com
www.boschsecurity.asia

China:

Bosch (Shanghai) Security Systems Ltd.
201 Building, No. 333 Fuquan Road
North IBP
Changning District, Shanghai
200335 China
Phone +86 21 22181111
Fax: +86 21 22182398
www.boschsecurity.com.cn

America Latina:

Robert Bosch Ltda Security Systems Division
Via Anhanguera, Km 98
CEP 13065-900
Campinas, Sao Paulo, Brazil
Phone: +55 19 2103 2860
Fax: +55 19 2103 2862
latam.boschsecurity@bosch.com
www.boschsecurity.com