D284 Ultraviolet Flame Detector

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BOSCH
Invented for life

- Highly reliable, long-lasting ultraviolet (UV) receptor tube
- Low power consumption
- Can be mixed with other detector types on the control panel's initiation detection circuit (IDC)
- Easily maintained; can be cleaned without disassembly

Use the D284 wherever fires can develop quickly. Suitable applications are:

- Petroleum storage areas
- Photographic or film storage areas
- Computer rooms
- Print shops
- Museums

Notice
The D284 is not a substitute for smoke or heat detectors. It provides an added level of notification for fast flaming fires only.

Notice
This product is not UL Listed.

Functions

Basic Operation

An ultraviolet-detector tube within the D284 absorbs very weak ultraviolet (UV) light such as that emitted from a flame and produces an electrical current. The detector's electronic circuitry translates this current into an alarm signal. A counter-current prevents alarm signals from single-pulse UV sources such as lightning or cosmic flares. Additionally, the circuit is tuned to respond only to wavelengths from 185 nm to 300 nm.

Coverage Area

The D284's response depends on both the size of the fire and the distance from the fire to the detector; therefore the effective coverage area varies. Very small fires must have a duration of at least 7 sec if within 12 ft (3.7 m) of the detector and a duration of 30 sec if within 12 ft to 25 ft (3.7 m to 7.6 m) of the detector.

Installation/configuration notes

Compatibility Information

The D284 is compatible with the following products:

Category	Product ID	Product Description
Control Panels:	All Bosch Security Systems 24 V fire alarm control panels	
Detector Bases:	D250A[1]	Two-wire detector base (12/24 VDC)
	D253	Two-wire detector base (24 VDC)
	D261AW[1]	Two-wire detector base (12/24 VDC)
	D261W[1]	Two-wire detector base (12/24 VDC)

D271W[1]	Four-wire detector base (12/24 VDC)
D280A	Two-wire detector base (24 VDC)
D290	Four-wire detector base (24 VDC)

[1] All 12 VDC or 24 VDC bases must be set for 24 VDC operation.

Parts included

Quant.	Component
1	Flame detector

Technical specifications

Environmental Considerations

Relative Humidity:	up to 95%, non-condensing at +104°F (+40°C)
Temperature (operating):	+14°F to +122°F (-10°C to +50°C)

Mechanical Properties

Color:	Ivory
Dimensions (diameter x H)	4 in. x 2 in. (10.2 cm x 5.1 cm)
Material:	ACS plastic (acrylonitrile-chlorinated PE-styrene)

Output

Contact Rating:	260 mA at 24 VDC

Power Requirements

Current

Alarm:	0.25 mA at 24 VDC
Standby:	0.2 mA at 24 VDC

Voltage (operating)

Nominal:	24 VDC
Range:	17.6 VDC to 27.7 VDC

Response

Detection Angle:	120° conical
UV Sensitivity:	185 nm to 300 nm

Ordering information

D284 Ultraviolet Flame Detector
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Order number **D284**

Accessories

D250A Two-wire Detector Base (12/24 VDC)
Accepts Bosch D254 and D255 heat detector heads
Order number **D250A**

D253 Two-wire Detector Base (24 VDC)
A two-wire 24 VDC heat detector base, with a latching steady-on alarm LED, that accepts Bosch D254 and D255 heat detector heads
Order number **D253**

D261AW Two-wire Detector Base (12 VDC or 24 VDC)
12 VDC or 24 VDC, two-wire circuit compatibility
Order number **D261AW**

D261W Two-wire Detector Base (12/24 V)
A white, 6 in. (15.24 cm) diameter, two-wire detector base that operates at 12 VDC or 24 VDC.
Order number **D261W**

D280A Two-wire Detector Base (24 VDC)
24 VDC, two-wire photoelectric smoke detector
Order number **D280A**

D290 Four-wire Detector Base (24 VDC)
24 VDC, four wire circuit compatibility
Order number **D290**

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