

# D284 Ultraviolet Flame Detector

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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

**i Notice**

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

**i 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 <sup>1</sup>	Two-wire detector base (12/24 VDC)
	D253	Two-wire detector base (24 VDC)
	D261AW <sup>1</sup>	Two-wire detector base (12/24 VDC)
	D261W <sup>1</sup>	Two-wire detector base (12/24 VDC)

D271W <sup>1</sup>	Four-wire detector base (12/24 VDC)
D280A	Two-wire detector base (24 VDC)
D290	Four-wire detector base (24 VDC)

<sup>1</sup> 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
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### 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

The D284 is an ultraviolet light flame detector that provides an added level of notification for fast flaming fires only. It is not a substitute for smoke or heat detectors and is not UL Listed.

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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