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# DS415i and DS435i Single Beam Photoelectric Detectors



- ▶ 150 m (500 ft) range
- ▶ Friction lock optics
- ▶ Alarm retransmission
- ▶ Alarm memory (DS435i only)
- ▶ Inhibit wiring (DS435i only)
- ▶ Indoor only

This single-beam photoelectric detector series consists of the surface mount DS415i and DS435i Detectors with their separate transmitters and receivers. The transmitter emits one invisible infrared beam to the receiver. If the beam is broken, the receiver signals an alarm. The detectors operate in either AC/DC or DC-only mode according to the following table:

Product	AC	DC
DS415i Detector	•	•
DS415iDC Detector		•
DS435i High Performance Detector		•

## Functions

### Alarm Memory (DS435i only)

Provides indication of stored alarms for use in multiple unit applications by latching the alarm LED at the receiver. Controlled by a switched voltage from the control panel.

### Alarm Retransmission

Supervised alarm circuit transmitter that allows connection of normally open or normally closed devices such as magnetic contacts or relays from other detectors. Their condition is relayed to the receiver by transmitter shutdown.

### Inhibit Wiring (DS435i only)

Optional signal synchronization wire between transmitter and receiver. Prevents receiver from being activated by other sources such as another transmitter. Units must have a common ground connection.

### Test Features

- Alarm LED
- Margin test switch to assist with alignment

## Certifications and Approvals

Region	Certification	
USA	UL	DS415i and DS435i: ANSR: Intrusion Detection Units (UL639)

## Technical Specifications

### Photobeam

DS415i Range: 150 m (500 ft)

DS435i Range: 150 m ( t )

### Enclosure Design

Dimensions: 16.2 cm x 7.7 cm x 6.6 cm (6.375 in. x 3 in. x 2.6 in.)

Material: High impact Lexan cover with die cast zinc base.

**Environmental Considerations**

Operating Temperature: -18°C to +49°C (0°F to +120°F).  
 For UL installations the operating range is 0°C to +49°C (+32°F to +120°F), indoor use.

**Mounting**

Location: Surface mount  
 Pointability: ±90° horizontal, ±20° vertical.

**Power Requirements**

Input Power:

- AC Operation 12 VAC
- DC Operation 8 VDC to 14.5 VDC

Transmitter Current Draw:

- DS415i  
 AC Operation: 68 mA RMS with battery  
 DC Operation: 8 mA at 12 VDC
- DS415iDC and DS435i  
 DC Operation Only: 8 mA at 12 VDC

Receiver Current Draw:

- DS415i  
 AC Operation: 95 mA RMS with battery  
 DC Operation: 33 mA at 12 VDC
- DS415iDC  
 DC Operation Only: 33 mA at 12 VDC
- DS435i  
 DC Operation Only: 20 mA at 12 VDC

Alarm Output: Form C contacts rated at 3.0 W, 125 mA at 28 VDC for resistive loads.

Tamper Output: Form A contact rated 125 mA at 28 VDC.

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**Ordering Information**

<b>DS415i Detector</b> Provides AC/DC operation and battery back-up. Includes a P333 Standby Battery. The range is 150 m (500 ft).	<b>DS415i</b>
<b>DS415iDC Detector</b> Provides DC operation only. The range is 150 m (500 ft).	<b>DS415iDC</b>
<b>DS435i High Performance Detector</b> Provides DC operation only, alarm memory, and inhibit wiring. The range is 150 m (500 ft).	<b>DS435i</b>
<b>Accessories</b>	
<b>P333 Rechargeable Battery Pack</b> Rechargeable (Nickel-Cadmium) battery pack rated for 3.6 V, 0.65 Ah.	<b>P333</b>
<b>TC6000 Test Cord</b> Test cord for connecting a compatible detector's test pins to a voltmeter. It is 4.6 m (15 ft) long.	<b>TC6000</b>
<b>TR12 Transformer</b> 12 VAC, 0.93 A transformer.	<b>TR12</b>

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