



DS484Q and DS486Q Quad Beam Photoelectric Detectors



The DS484Q and DS486Q Detectors have separate transmitters and receivers. The transmitter sends an invisible infrared beam to the receiver. If the beam is broken, the receiver signals an alarm. Multiple channel operation provides increased system flexibility.

Functions

Environmental Discrimination Circuitry

Monitors gradual loss of signal due to dust, fog, rain, snow, and so on. Normally-closed output opens when signal loss reaches 90%. Can be field configured to bypass alarm relay when activated.

Test Features

The transmitters have three features for use in alignment and testing.

- Voltage output (requires a voltmeter)
- Sounder for alignment
- LEDs (alignment)

Multiple Channel Operation

Configure the detectors for up to eight different channels. This allows multiple units to be used near one another without the possibility of receiver cross-talk. This is particularly useful when stacking multiple beam sets.

- ▶ Quad beams
- ▶ Easy alignment (sounder, LEDs, and voltage readings)
- ▶ Two coverage ranges
- ▶ Four mounting options with optional mounting poles
- ▶ Environmental discrimination circuit
- ▶ Multiple channel operation
- ▶ And-Or mode selection

And-Or Mode Selection

You can configure the detectors to cause an alarm when all four beams are blocked, or when either the upper two beams or lower two beams are blocked. This configuration detects smaller objects and eliminates the possibility of someone crawling through the beam.

Certifications and Approvals

UL639, Intrusion Detection Units
 CE

Installation/Configuration Notes

Mounting Considerations

Mount these detectors on solid vibration free surfaces or poles.

Technical Specifications

Photobeam

Selectable Beams:	Two groups by four channels
Maximum Outdoor Coverage DS484Q:	120 m (400 ft)
Maximum Outdoor Coverage DS486Q:	200 m (660 ft)
Response Time:	Selectable response time of 35 ms to 700 ms
Beam Interrupt Time:	Adjustable from 50 ms to 500 ms

Enclosure Design

Material:	Polycarbonate
Dimensions:	398 mm x 103 mm x 99 mm (15.67 in. x 4.06 in. x 3.90 in.)
Receiver Weight:	1.2 kg (2.64 lb)
Transmitter Weight:	1.2 kg (2.64 lb)

Environmental Considerations

Operating Temperature:	-25° C to + 55° C (-13°F to + 130° F)
IP Rating:	IP 54 (protection against dust; protection against splashing water)

Mounting Considerations

Location:	Surface or pole mount
Pattern Pointability:	±90° horizontal, ±10° vertical

Power Requirements

Voltage:	10.5 VDC to 28 VDC non-polarized
Receiver Current Draw:	80 mA standby, 50 mA alarm
DS484Q Transmitter Current Draw:	35 mA
DS486Q Transmitter Current Draw:	55 mA
Backup Power Requirements:	4 hours (120 mAh) minimum required for UL Certified Installations
Tamper Output:	Normally-closed contacts rated at 0.1 A at 30 VDC
Alarm Output:	Form C 0.2 A at 30 VDC, output period: 3 sec
EDC Output:	Normally-closed 0.2 A at 30 VDC, output period: 3 sec
Tamper Output:	Normally-closed 0.1 A at 30 VDC, output period: while cover is removed
Environmental Discrimination Circuit Output:	Normally-closed contacts rated at 0.2 A at 30 VDC

Ordering Information

DS484Q Photoelectric Detector	DS484Q
Provides an outdoor range of 120 m (400 ft).	
DS486Q Photoelectric Detector	DS486Q
Provides an outdoor range of 200 m (660 ft).	
Accessories	
MP1 Metal Pole, 1 m (3 ft)	MP1
Straight metal poles measuring 1 m (3 ft) for pole mounting photoelectric detectors. Shipped in packages of two.	
MP2 Metal Pole, 1.2 m (4 ft)	MP2
Straight metal poles measuring 1.2 m (4 ft) for pole mounting photoelectric detectors. Shipped in packages of two.	
MP3 L-Curved Metal Pole	MP3
Curved metal poles for mounting to vertical surfaces for pole mounting photoelectric detectors. Shipped in packages of two.	
PC1A Weather Enclosure	PC1A
Protects detectors when mounted outside. The enclosure's dimensions are 39.4 cm x 10.3 cm x 6 cm (15.5 in. x 4 in. x 2.4 in.). Shipped in packages of two.	
PC3A Back-to-back Box	PC3A
Allows back-to-back mounting of detectors on a pole. Shipped individually.	
PEH-2 Heater	PEH2
Reduces the effects of frost, intense fog, cold, and damp conditions on photoelectric beam detectors. Shipped in packages of four (two for transmitter and two for receiver).	

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