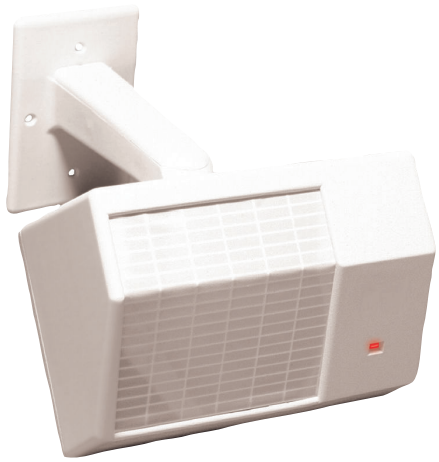
BOSCH
Invented for life

DS794Z and ZX794Z Series Long Range PIR Detectors



- **Motion Analyzer II processing**
- **Motion Monitor**
- **PIR supervision**
- **Self test supervision systems**
- **Field-replaceable optics**
- **Three coverage patterns**

The surface or corner mount, long-range DS794Z and ZX794Z Series PIR Detectors use Motion Analyzer II signal processing to reduce false alarms. Several unique test features, including Motion Monitor, provide coverage integrity. Field replaceable mirrored optics and three different coverage patterns provide installation flexibility.

Functions

Signal Processing

Motion Analyzer II uses multiple thresholds and timing windows to analyze timing, amplitude, duration, and polarity of signals to make an alarm decision. It will not alarm on extreme levels of thermal and illumination disturbances caused by heaters and air conditioners, hot and cold drafts, sunlight, lightning, and moving headlights. Three sensitivity settings are provided.

Test Features

External visible alarm LED flashes to indicate trouble condition. Internal Noise Voltage Test Pins provide precise pattern location and background disturbance evaluation using a standard analog meter. Internal sounder output for use with Sonalert® sounder (not supplied).

Motion Monitor

Switch-selectable four and thirty day timers verify that there is a clear view of the protection area.

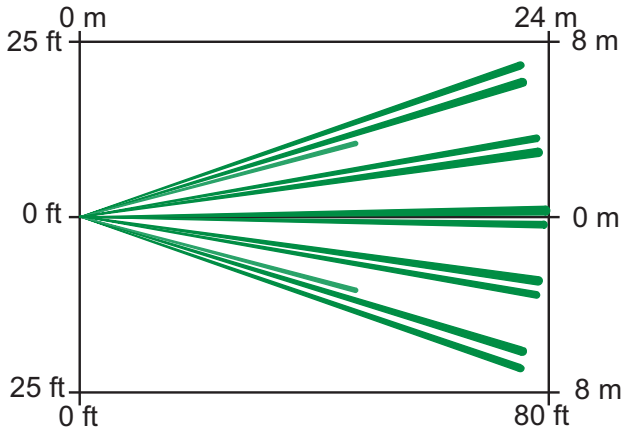
PIR Supervision

Provides trouble output in the event that PIR circuitry fails.

Certifications and Approvals

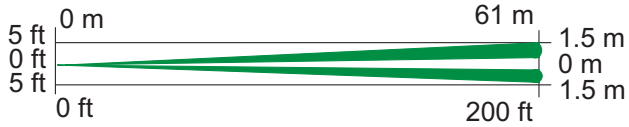
Region	Certification	
Europe	CE	DS models only: 89/336/EEC, EN55022: 1998 +A1: 2000 +A2: 2003, EN50130-4: 1996 +A1: 1998 +A2: 2003, EN61000-4-2: 1995 +A1: 1998 +A2: 2001, EN61000-4-3: 2002 +A1: 2003, EN61000-4-4: 1995 +A1: 2000 +A2: 2001, EN61000-4-5: 1995 +A1: 2001, EN61000-4-6: 1996 +A1: 2001 +A2: 2001, EN61000-4-11:1994 +A1: 2001, EN60950-1: 2001 +A11: 2004
Poland	CNBOP	DS794Z: 77/03
USA	UL	DS794Z: ANSR: Intrusion Detection Units (UL639) ZX794Z: ANSR: Intrusion Detection Units (UL639)
China	CCC	DS794ZE: 2007031901000035
Europe	DS794ZE complies with EN50131-1, Grade 2	

Installation/Configuration Notes



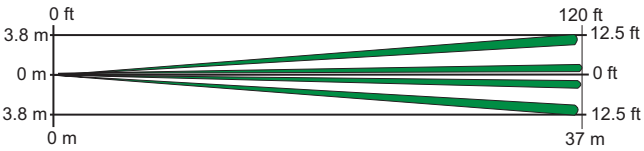
Top View
Standard Broad Coverage: 24 m x 16 m (80 ft x 50 ft)

Side View
Standard Broad Coverage: 24 m x 16 m (80 ft x 50 ft)



Top View
Standard Long Range: 61 m x 3 m (200 ft x 10 ft)

Side View
Standard Long Range: 61 m x 3 m (200 ft x 10 ft)



Top View
Optional Long Range 37 m x 8 m (120 ft x 26 ft)

Side View
Optional Long Range 37 m x 8 m (120 ft x 26 ft)

Standby Power

If there is no internal standby battery, connect to DC power source capable of supplying standby power if the primary power fails.

Model	Standby Power	mAh required per hour
DS794Z	No standby battery	18 mAh
DS794ZE	No standby battery	25 mAh
DS794ZE-FRA	No standby battery	18 mAh
ZX794Z	Provided by the Zonex bus	0.5 mAh

Note A minimum of four hours of standby power is required for UL Listed requirements.

Parts Included

For your convenience, the OA200 Mirror and OA80 Mirror are included with the detector.

Technical Specifications

Enclosure

Dimensions:	14 cm x 21 cm x 14 cm (5 in. x 7.5 in. x 5 in.)
Material:	High impact ABS plastic enclosure

Environmental Considerations

Operating Temperature:	-29°C to +49°C (-20°F to +120°F) *For UL Certificated installations, 0°C to +49°C (+32°F to +120°F)*
Radio Frequency Interference (RFI) Immunity:	No alarm or setup on critical frequencies in the range from 26 MHz to 950 MHz at 50 V/m.
DS794ZE:	Complies with Environmental Class II (EN50130-5)

Mounting

Height:	5 m (15 ft.) maximum
Location:	Surface or corner

Power Requirements

Current Draw:	18 mA at 12 VDC 25 mA at 12 VDC (DS794ZE)
Voltage (Input):	6 VDC to 15 VDC ZX794Z: Power comes from two-wire Zonex Bus. <0.5 mA nominal, 2 mA in alarm with LEDs enabled. Do not leave Walk Test LEDs enabled.

Outputs

Alarm:	ZX794Z: Signal through POPIT data bus.
	DS794ZE-FRA: Form C Contacts rated at 3.0 W, 125 mA at 28 VDC for resistive loads protected by a 4.7 Ω resistor in the common C leg.
Tamper:	Normally-closed (with cover in place). Contacts rated at 28 VDC, 125 mA maximum.
	ZX794Z: Signal through POPIT data bus. Signaled as Missing.
Trouble:	Solid state output, shorts to negative when activated. Maximum current load is 25 mA.
	ZX794Z: Signal through POPIT data bus.

Trademarks

Sonalert® is a registered trademark of Mallory Sonalert® Products, Inc.

Ordering Information

DS794Z Long-Range PIR Intrusion Detector Provides Motion Analyzer II processing, Motion Monitor, and three coverage patterns, and 61 m x 3 m (200 ft x 10 ft) long range coverage.	**DS794Z**
DS794ZE Long-Range PIR Intrusion Detector Provides Motion Analyzer II processing, Motion Monitor, and three coverage patterns, and 61 m x 3 m (200 ft x 10 ft) long range coverage.	**DS794ZE**
ZX794Z Long-Range PIR Intrusion Detector Includes an internal POPIT. Provides Motion Analyzer II processing, Motion Monitor, and three coverage patterns, and 61 m x 3 m (200 ft x 10 ft) long range coverage.	**ZX794Z**
Accessories	
OA120-2 Mirror A 36.5 m (120 ft) optical array module. Shipped in packages of two.	**OA120-2**
TC6000 Test Cord Test cord for connecting a compatible detector's test pins to a voltmeter. It is 4.6 m (15 ft) long.	**TC6000**

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