

## 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.

### System overview

### 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.

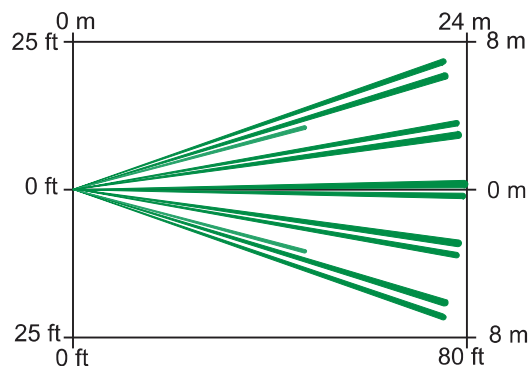
#### PIR Supervision

Provides trouble output in the event that PIR circuitry fails.

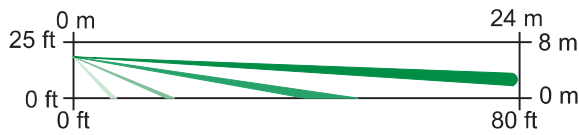
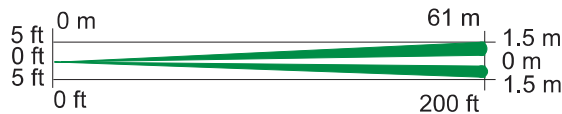
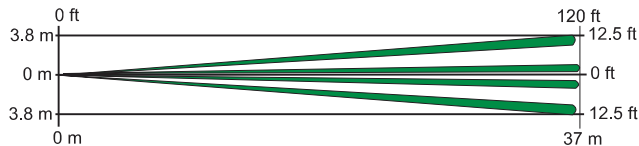
### Regulatory information

| Region | Regulatory compliance/quality marks |                                                 |
|--------|-------------------------------------|-------------------------------------------------|
| Europe | CE                                  | [DS794Z]                                        |
| USA    | UL                                  | [DS794Z]                                        |
|        | UL                                  | [XZ794Z]                                        |
|        | UL                                  | UL 639 - Standard for Intrusion Detection Units |
| China  | CCC                                 | 2007031901000035 [DS794ZE]                      |

### 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               |

**i Notice**

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

**Technical specifications****Enclosure**

|             |                                                    |
|-------------|----------------------------------------------------|
| Dimensions: | 14 cm x 21 cm x 14 cm<br>(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)<br><i>For UL Certificated installations, 0°C to +49°C (+32°F to +120°F)</i> |
| 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<br>25 mA at 12 VDC (DS794ZE)                                                                                                                 |
| Voltage (Input): | 6 VDC to 15 VDC<br>ZX794Z: Power comes from two-wire Zonex Bus.<br><0.5 mA nominal, 2 mA in alarm with LEDs enabled.<br>Do not leave Walk Test LEDs enabled. |

**Outputs**

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

**Trademarks**

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

## Ordering information

### **DS794Z Motion detector, long range, 200ft (60m)**

Provides PIR, three coverage patterns, and 61 m x 3 m (200 ft x 10 ft) long range coverage.

Order number **DS794Z | 4.998.800.027**

### **DS794ZE DS794Z-200 W/EXTRA 80FT**

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.

Order number **DS794ZE | 4.998.126.051**

### **DS794ZE-FRA DS794ZE FOR FRANCE**

For use in France. 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.

Order number **DS794ZE-FRA | 4.998.126.052**

### **ZX794Z Motion detector, 80ft (24m)**

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.

Order number **ZX794Z | 4.998.126.660**

## Accessories

### **OA120-2 LNG RANGE OPTCL ARRAY 120**

A 36.5 m (120 ft) optical array module. Shipped in packages of two.

Order number **OA120-2 | 4.998.800.291**

### **DS951-CHI Motion detector, 50ft (15m)**

Test cord for connecting a compatible detector's test pins to a voltmeter. It is 4.6 m (15 ft.) long.

Order number **TC6000 | 4.998.800.317**



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