



10 LED ON-OFF

The LED can be enabled or disabled by using the LED ON/OFF switch or by using D.L. terminal.

1 LED ON/OFF Switch (SX-360Z only)



- Use this switch to enable or disable LED.
- This switch has priority to over DL terminal.

2 DL Terminal (for LED remote control)

- LED can be enabled or disabled remotely by using DL terminal.

| | Remote operation |
|--------------|---------------------------------------|
| LED Enabled | Connect DL terminal to common ground. |
| LED Disabled | Open DL terminal circuit. |

Note>>

- LED operation does not affect the alarm memory functions.
- DL terminal common line is same as terminal of POWER INPUT.

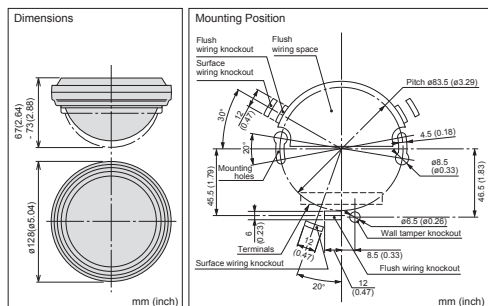
11 TROUBLE SHOOTING AND MAINTENANCE

| PROBLEM | PROBABLE CAUSE | REMEDY |
|---|--|---|
| LED does not light. | Incorrect power supply voltage. (disconnection, or low voltage) | Correct supply voltage to 9.5 - 18 VDC. |
| | Incorrect detection area. | See section 2 and section 7. |
| | Incorrect polarity to detector. | Switch positive and negative at terminal. |
| | LED switch is OFF | Turn on the Switch. See section 10. |
| LED lights even though no person within area. | Moving object within area. (curtain, wall hanging, etc.) | Remove object from detection area. |
| | Rapid temperature changes (heater, air-conditioner, etc.) within area. | Remove object from detection area. |
| LED continues to light | Poor connection of alarm memory. (SX-360ZV) | Reconnect wire. |
| | Wrong control voltage from panel. (SX-360ZV) | Must be 0 to 1 VDC. (grounded) |
| LED lights but signal is not sent. | Relay contact is stuck or damaged due to overloading. | Check load of output. The unit needs repair or replacement. |
| | Faulty Wiring. | Wire correctly. |

12 SPECIFICATIONS

| Model | SX-360Z |
|----------------------------|---|
| Detection method | Passive Infrared |
| Detection zones | 276 zones |
| Mounting location | Ceiling |
| Coverage / Mounting height | ø18 m (ø60 ft.) at 2.4 - 5 m (8 - 16 ft.) |
| Optical design | 360° ZOOM |
| LED indicator | LED is blinking during warm-up period. |
| Alarm period | 2.0 ± 0.5 sec. |
| Alarm output | N.C., 28 VDC 0.2 A (max.) |
| Tamper switch | N.C., Opens when cover removed. |
| Tamper output | 30 V DC 0.1 A (max.) |
| Pulse Count | 20 ± 5 sec. 1, 2 or 4 |
| Warm up period | Approx. 20 sec. (LED blinks.) |
| Power input | 9.5 to 18 VDC |
| Current draw | 16 mA (normal), 18 mA (max.) |
| Weight | 224 g (7.90 oz) |
| Operating temperature | -20°C to +50°C (-4°F to +122°F) |
| Environment humidity | 95% (max.) |
| RF interference | No Alarm 30 V/m |

| Model | SX-360ZV |
|----------------------|------------------------------------|
| Alarm memory | Armed : 0 to 1 VDC. See section 8. |
| Initial Alarm memory | Max.40 detectors See section 8. |
| Current draw | 16 mA (normal), 28 mA (max) |
| Weight | 227 g (8.00 oz.) |
| RF interference | No Alarm 30 V/m |



* Specifications and design are subject to change without prior notice.

Note>>

- This unit is designed to detect movement of an intruder and activate an alarm control panel. Being only a part of a complete system, we cannot accept responsibility for any damages or other consequences resulting from an intrusion.
- This Product conforms to the EMC Directive. 2004/108/EC.
- The ULC products are installed in accordance with the Canadian Code as per Section 4.3 of ULC-S306.

13 COMPLIANCE



EMC Directive 2004/108/EC
EN 50130-4: 2011
EN 55022: 2010
PD6662:2010

(SX-360Z)
EN50131-1 Grades and Environmental Class:
Security Grade 2 and Environmental Class II.
EN 50131-2-2
Tested and certified by Tefelocation.

larm klass 2, miljõ klass II, SSF 1014 v4

UL/c-UL Listed



OPTEX CO., LTD. (JAPAN)
URL: <http://www.optex.net/>

OPTEX INC. (U.S.)
URL: <http://www.optexamerica.com/>

OPTEX TECHNOLOGIES B.V. (The Netherlands)
URL: <http://www.optex.eu/>

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OPTEX SECURITY SAS (France)
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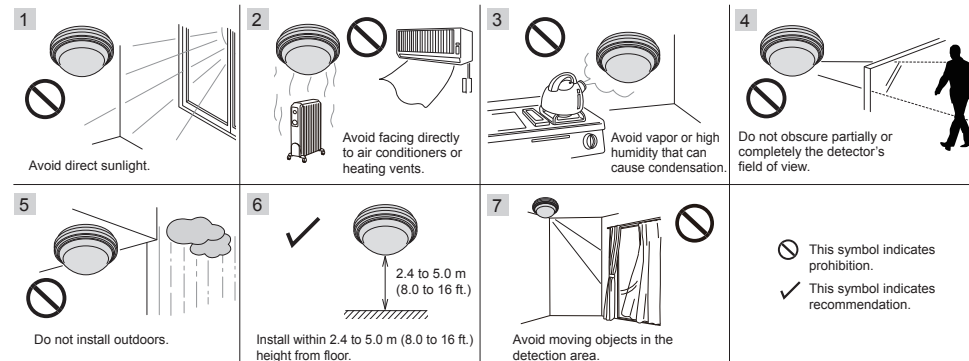


360° CEILING MOUNT PASSIVE INFRARED DETECTOR SX-360Z, SX-360ZV

FEATURES

- Ceiling mount 360° PIR detector
- Zoom area adjustment : ø18 m (ø60 ft.) at 2.4 - 5.0 m (8 - 16 ft.)
- High density detection area with 276 zones
- Selectable sensitivity (High, Medium or Low)
- Selectable pulse count (TEST, 2 or 4)
- Initial alarm memory (SX-360ZV)
- LED remote control terminal

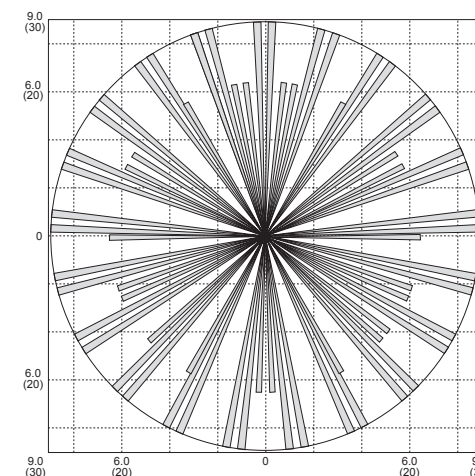
1 INSTALLATION HINTS



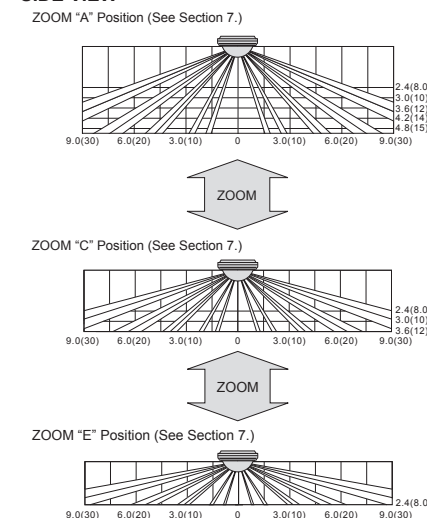
- ⊘ This symbol indicates prohibition.
- ✓ This symbol indicates recommendation.

2 DETECTION AREA

TOP VIEW

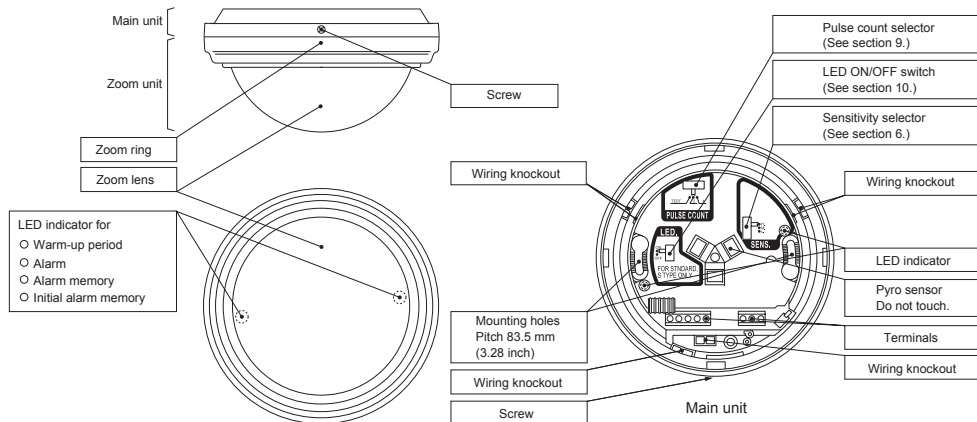


SIDE VIEW

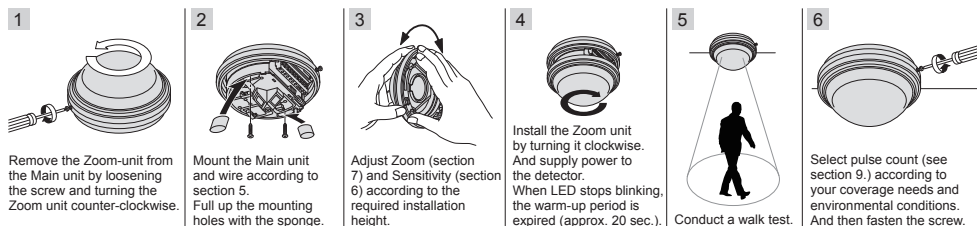


Unit: m (ft)

3 PARTS IDENTIFICATION



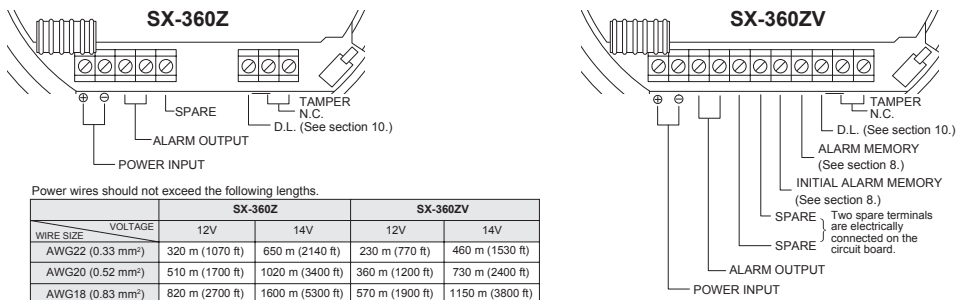
4 INSTALLATION METHOD



Note>>

- When the warm-up period is expired, alarm is generated once. This is an electric characteristic of SX-360Z and not a mal-function.
- Conduct a walk test at least once a year.

5 WIRING

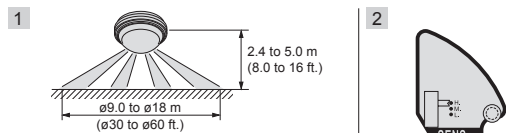


Power wires should not exceed the following lengths.

| WIRE SIZE | VOLTAGE | SX-360Z | | SX-360ZV | |
|-------------------------------|---------|-----------------|------------------|-----------------|------------------|
| | | 12V | 14V | 12V | 14V |
| AWG22 (0.33 mm ²) | | 320 m (1070 ft) | 650 m (2140 ft) | 230 m (770 ft) | 460 m (1530 ft) |
| AWG20 (0.52 mm ²) | | 510 m (1700 ft) | 1020 m (3400 ft) | 360 m (1200 ft) | 730 m (2400 ft) |
| AWG18 (0.83 mm ²) | | 820 m (2700 ft) | 1600 m (5300 ft) | 570 m (1900 ft) | 1150 m (3800 ft) |

- When using two or more units on one wire, the maximum length is obtained by dividing the above length by the number of units used.
- UL requires SX-360Z to be connected to a UL listed power supply capable of providing a nominal input of 12 VDC and battery standby time of 4 hours.

6 SENSITIVITY ADJUSTMENT



Before making adjustments, determine the mounting height and detection area. (See section 7.)

Select the sensitivity "H (High)", "M (Medium)" or "L (Low)". The following chart shows recommended setting for diameter of detection area.

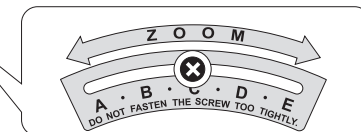
| SENS. | L | M | H |
|----------------------------|----------------------------|---------------------------|---------------------------|
| DIAMETER OF DETECTION AREA | 9.0 to 12 m (30 to 40 ft.) | 12 to 15 m (40 to 50 ft.) | 15 to 18 m (50 to 60 ft.) |

7 ZOOM AREA ADJUSTMENT

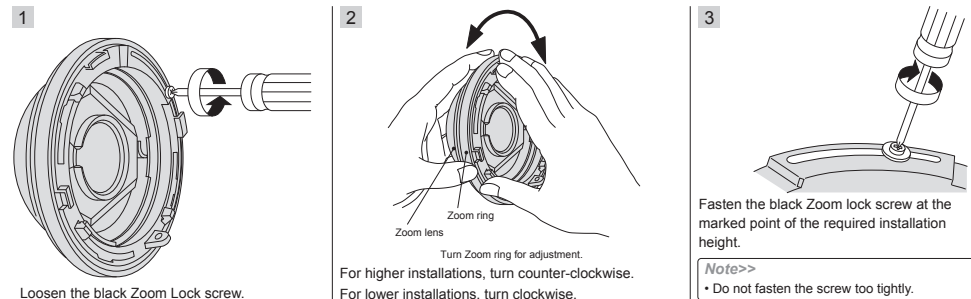
The SX-360Z series detection pattern can be adjusted for installations at any height, between 2.4 to 5.0 m (8.0 to 16 ft.)

<DETECTION AREA CHART> Unit: m (ft.)

| MOUNTING HEIGHT | ZOOM-LOCK SCREW | | | | |
|-----------------|-----------------|-----------|-----|-----|-----|
| | A | B | C | D | E |
| 5.0 m (16 ft.) | φ18 (φ60) | - | - | - | - |
| 4.3 m (14 ft.) | φ16 (φ52) | φ18 (φ60) | - | - | - |
| 3.7 m (12 ft.) | φ14 (φ48) | φ15 (φ50) | φ18 | - | - |
| 3.0 m (10 ft.) | φ11 (φ37) | φ12 (φ40) | φ15 | φ18 | - |
| 2.4 m (8.0 ft.) | φ9.0 (φ30) | φ10 (φ34) | φ12 | φ15 | φ18 |



<ADJUSTING THE ZOOM UNIT>



8 INITIAL ALARM MEMORY & ALARM MEMORY (SX-360ZV)

The SX-360ZV can indicate an alarm history during armed period by wiring ALARM MEMORY terminal (A.M.) shown in the following section. It indicates on the LED after the system is disarmed. In case that several detectors are connected in one loop, it can indicate which one detected intrusions. In addition, by wiring INITIAL ALARM MEMORY terminal (I.A.), detectors can indicate which one detected intrusion first.

1 System status

The detector recognizes whether the system is armed or disarmed by detecting the voltage of control panel output through the A.M. terminal.

| Status | Control panel output |
|-----------------|----------------------|
| System armed | 0 - 1 VDC (grounded) |
| System disarmed | Open |

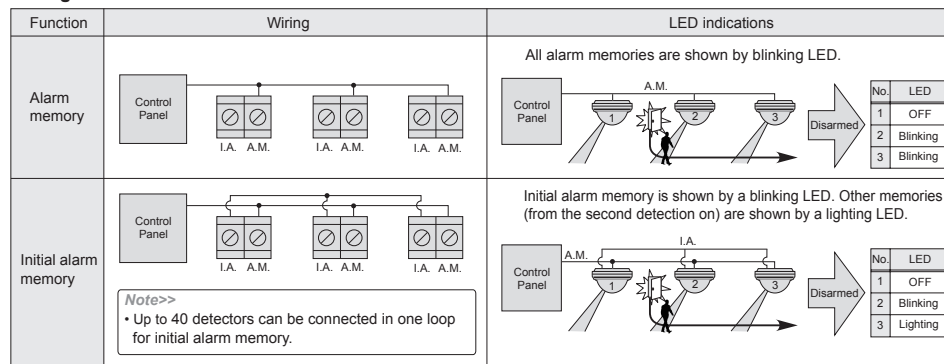
"grounded"= A.M. terminal is electrically connected with ⊖ power supply terminal (ground).

2 Reset

Alarm memories are reset automatically when the system is armed again.

- Note>>**
- A suitable control panel is required for alarm memory.
 - Alarm memory is operated whether the LED is disabled or not.
 - Alarm memory is not latched while system is disarmed.
 - LED operation and alarm output are not affected by the status of alarm memory function while system is armed.

3 Wiring and LED indications



9 PULSE COUNT ADJUSTMENT



Adjust pulse count as follows.

| PULSE COUNT | TEST | 2 | 4 |
|-------------|--|---|--|
| USAGE | Instant alarm mode Select this position for walk test only. | Factory default position Select this position for most applications. | For bad environments, changing temperatures etc. |