

Redwall SIP PIR Certification Exam test Q&A

Participant Full Name (please print clearly): _____

Company: _____

Date of Class: _____

Q1.) Explain the principal function of detection for PIR sensors.
6 points

Q2.) What factors best define the detection pattern of an Optex SIP PIR sensor? Describe two factors.

Shape of the pyro-element

Optics

Design of the lens

Both A and B

6 points

Q3.) What kinds of effectiveness can you expect from Double Conductive Shield?

Avoid the influence of visible lights.

Reduce the influence of RFI.

Eliminate false alarms caused by small animals

Both A and B

6 points

Q4.) What functions are equipped on Optex SIP units, and what kinds of features or tools were prepared for SIP series in order to make it easy adjustment of detection areas? Give 5 examples.

Q5.) The Optex SIP can automatically adjust its own sensitivity by using two environmental bits of information where the units are installed. What sorts of information were used?

- illumination sensor
- Temperature sensor
- Accelerometer
- Both A and B

6 points

Q6.) What is the most difficult environmental condition for outdoor PIR sensors to detect a human body?
5 points

Q7.) There are various causes which create the false alarms in outdoor PIR installations. What is the most frequent cause of false alarm caused by improper installation and adjustment?

Improper adjustment of area to SIP unit installed

Improper wiring

Improper selection of unit to area

Not aligned with camera view

3 points

Q8.) Pick the three key factors in order to achieve reliable installation of Redwall PIR, and concisely describe each issue.

5 points x 3, total 15 points. It's OK if the contents of answers are appropriate.

Q9.) What is the advantage of an Optex PIR sensor against Video Motion Detection or Video Analysis?

In dark conditions, the PIR sensor can detect objects without any external lighting.

No license fees are required to operate PIR sensors

PIR sensors can work with any camera, regardless of vendor or type, new or existing.

All the above

3 points

Q10.) There is a site where an installed sensor unit is generating a false alarm. When checking the video image of camera(s) during the event, there was no image of any intruder or cause for false alarm. Why was there no image recorded when an alarm was generated? What is the cause of the problem? Explain the counter-measure. 3 points

Q11.) What kinds of sites are good for using “OR” logic of the two choices of “AND/OR” logic selection?

The place where it is hard to cross the area if set by “AND” because obstacles are covering or blocking the area.

Security levels of the site has a higher priority over preventing a missed alarm vs. a false alarm.

It is hard to tell which selection is best suited, so “OR” is the default choice.

Both A and B

3 points

Q12.) Explain two influences happening if the sensor was installed at a height higher than specified?

The gaps of detection area becomes larger. It may create a dead spot of detection area.

If the sensor is set to cover too much of a downward angle, there is the possibility to create false alarms at the Near area because it collapses the balance of detection sensitivity.

The unit will not match the camera view angle.

Both A and B

8 points

Q13.) What technology features were adopted by the Optex SIP series as a form of vandal protection?

Photo beam, for Anti-masking

Axis accelerometer, for Anti-rotating

Reinforced polycarbonate housing

Both A and B

8 points

Q14.)

Give the detection range of the following models, "x" by "y" (m or ft.):

SIP-3020 Detection range () * ()

SIP-4010 Detection range () * ()

SIP-404 Detection range () * ()

2 points each, total 12 points

Q15.)

Give the number of alarm output(s) for the following models:

SIP-5030 Number of alarm output =

SIP-100 Number of alarm outputs =

SIP-3020/5 Number of alarm outputs =

2 points each, total 6 points.