Caledon, LLC

APPLICATION NOTE

USING THE EYETEC SENSOR TO MONITOR SAFE DEPOSIT BOXES

The Problem.

Conventional CCTV systems are not suitable for monitoring safety deposit boxes, where there is sensitivity to the need to limit recording of images in order to safeguard privacy and limit liability. Wiring in secure areas can also be problematic, for example running coax from a camera to a DVR. At the same time, wireless communication in these areas with their steel walls can be problematic.

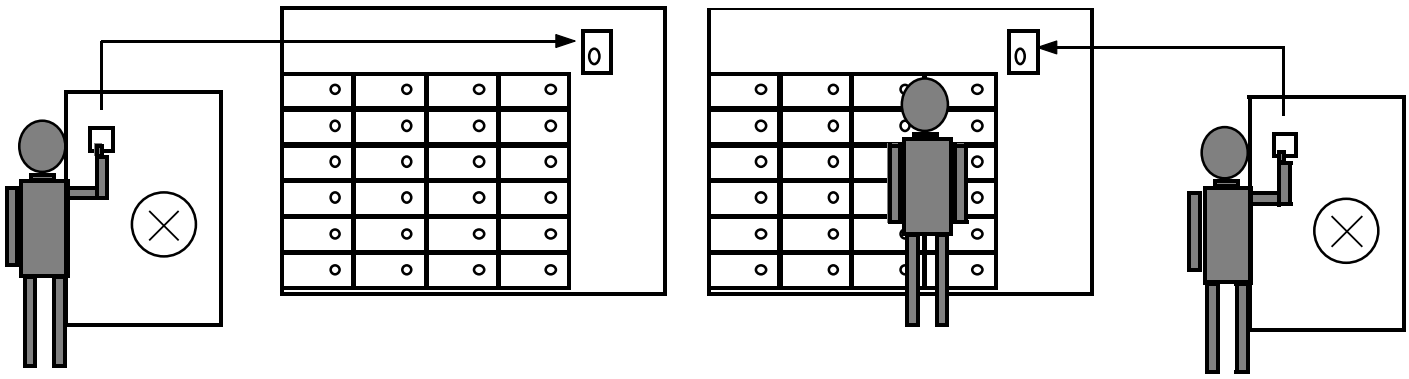
The Solution

- Record only when necessary and appropriate, i.e. when the safe deposit box area is accessed by an unauthorized person.
- Store images locally.
- Retrieve images without wiring or a wireless link to a location outside the safe deposit box area.

Using Eyetec

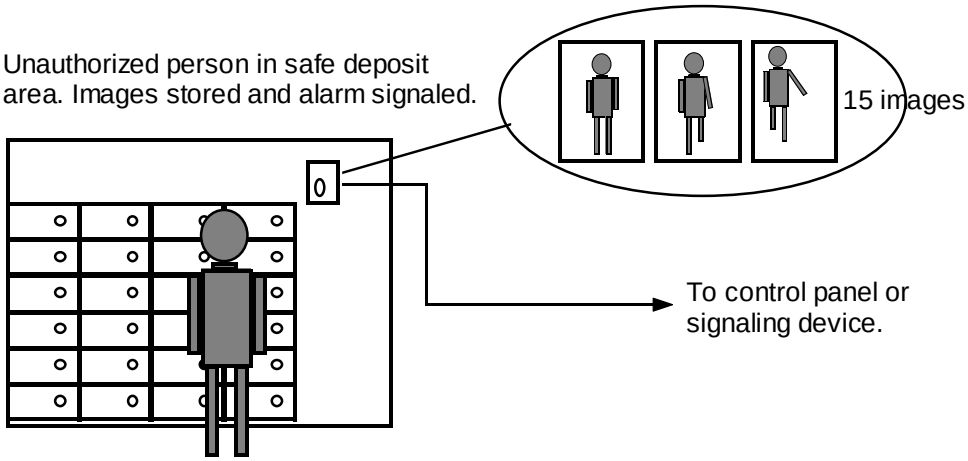
Normal operation

- Eyetec's image sensor is constantly monitoring the protected area. However, only those images immediately before, during or after an alarm occurring in the sensor's armed state are recorded and stored in the sensor's memory. Up to 15 images are stored locally in the sensor.
- When a user is authorized to enter the area (either by a bank employee or a by automatic means such as a biometric reader), a signal is provided to the Eyetec sensor to disarm it. No recording will take place.
- When the authorized user leaves the protected area, the signal is removed from the Eyetec sensor placing it in armed condition.



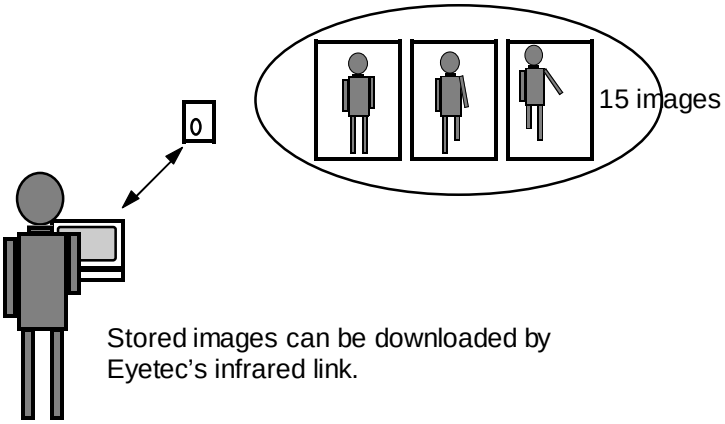
Unauthorized Person in Safe Deposit Area (Intruder)

In armed state, any activity within the safe deposit area will cause an alarm, resulting in recording of the event. An alarm signal is simultaneously sent to an alarm panel or signaling device.



Retrieving Images

After the system is disarmed after an alarm, stored images can be retrieved using the sensor's infrared link and viewed on a laptop computer by bank security staff.



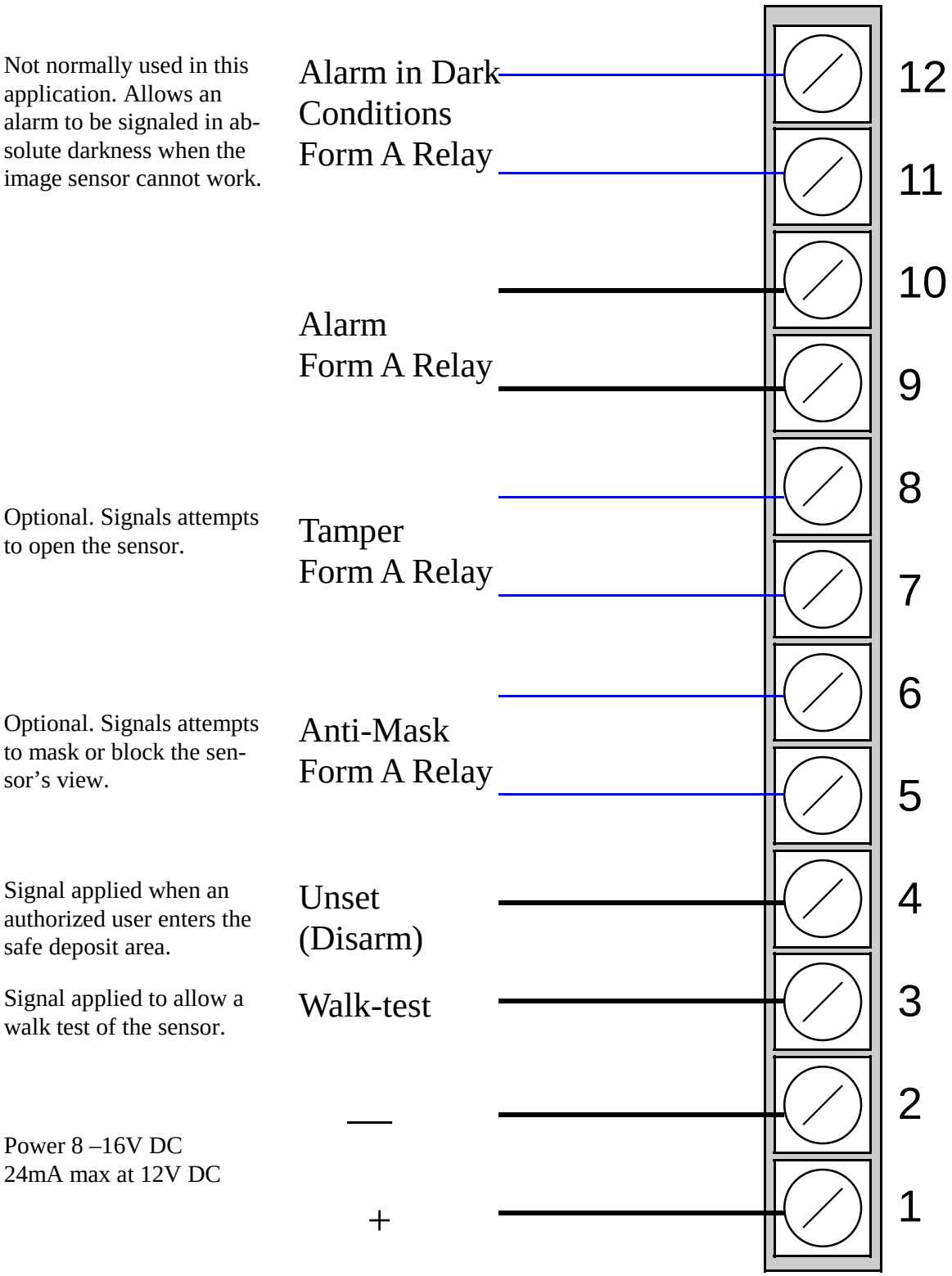
More Eyetec Features

1. An added level of security – if someone tries to block or mask the sensor, this is signaled by an anti-masking/blocking output.
2. Individual areas can be excluded from the detection area, allowing access even when the sensor is armed.
3. The sensor can be programmed to detect motion in one direction only.

For details of these features, see the Eyetec specsheet.

Eyetec Wiring Connections

The Eyetec is wired like a conventional motion sensor. For the basic features, a six conductor cable is required. Tamper, anti-mask and zero light detection features require an additional pair each for a maximum of 12 conductors. See the diagram on the next page.


Not normally used in this application. Allows an alarm to be signaled in absolute darkness when the image sensor cannot work.
Alarm in Dark Conditions Form A Relay
12
11
10
Alarm Form A Relay
9
8
Optional. Signals attempts to open the sensor.
Tamper Form A Relay
7
6
Optional. Signals attempts to mask or block the sensor's view.
Anti-Mask Form A Relay
5
4
Signal applied when an authorized user enters the safe deposit area.
Unset (Disarm)
Signal applied to allow a walk test of the sensor.
Walk-test
3
2
Power 8 –16V DC
24mA max at 12V DC
—
+
1