

FlexZone®

HOW-TO GUIDE

SIX STEPS TO AFFORDABLE PERIMETER PROTECTION



EASY TO INSTALL

LOW TOTAL COST OF OWNERSHIP

HASSLE-FREE OPERATION & MAINTENANCE

SENSTAR[™]

Detect intruders BEFORE they get in

By itself, **your expensive security fence is only a minor deterrent** to determined intruders – they can cut-through or climb it in seconds! By the time your building's alarm system detects them, they could already be stealing or damaging your property.

FlexZone® is an affordable, easy-to-install system that enhances your existing fence by turning it into a **smart fence**. FlexZone detects and locates any attempt to cut, climb or otherwise break through your fence. Detection at the perimeter means you can trigger your alarm system, cue up camera systems, and automatically engage deterrence devices like security lights or sirens while intruders **are outside your building or protected area**.

FlexZone **enhances your existing security system**, reduces both operational costs and nuisance alarms, and above all, provides peace of mind for those with unmanned properties.

FlexZone is **reliable in harsh North American environments**.

Secure your perimeter, secure your site.

The operations of small businesses are highly sensitive to the disruptive and financial impacts of property theft and damage.



SIX STEPS TO AFFORDABLE PERIMETER PROTECTION

Step 1: Collect basic site requirements

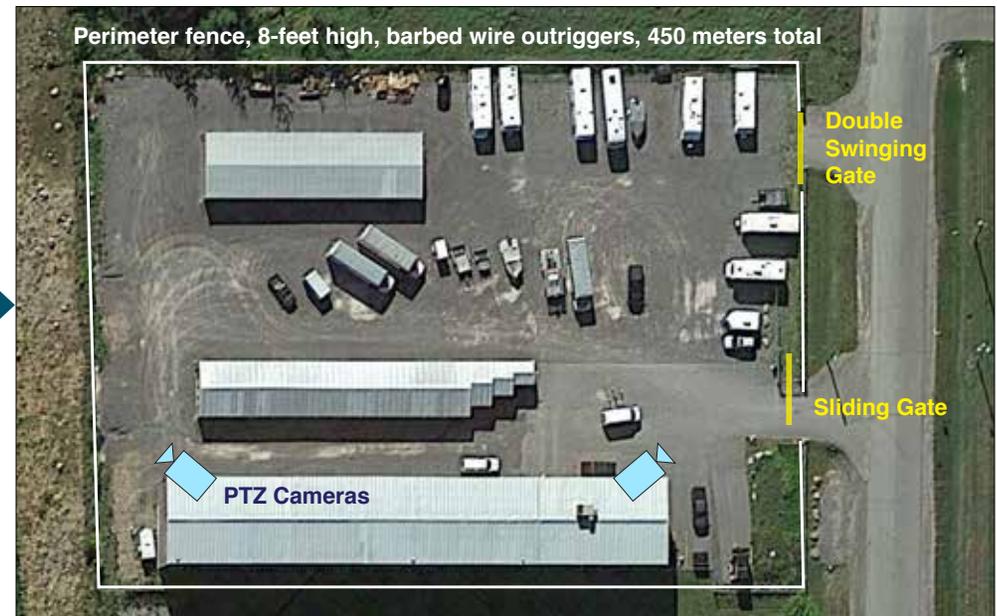
Survey your site and collect its basic security requirements:

- What is the total distance of the fenced perimeter?
- What is the type and height of the fence? Does it have any outriggers (e.g. barbed wire)?
- How many gates need to be protected? Are they swinging or sliding?
- How many detection zones do you require?
- Are there any existing security sensors or devices (e.g. cameras, motion detectors, security lighting) that you want to integrate?
- Are there other points of interest that require monitoring (e.g. door or gate contacts)?
- Is there existing power supply (12–48V DC)? If so, is it connected to an Uninterruptible Power Supply (UPS) device?
- Is there a security equipment room or locker?
- Do you have an existing alarm system? If yes, can it monitor third-party equipment via dry-contact inputs or a networked software interface?

Internet-based site surveys

Senstar can look at your security requirements remotely by using Internet-based mapping tools like Google Earth.

Email your physical address to info@senstar.com and we will quickly quote a perimeter security solution specific to your site.



An example of remote site survey performed with Internet-based mapping tools and some basic information provided via email.

Step 2: Identify security issues and risks

Walk along your perimeter and identify potential security issues and risks:

What is the condition of your fence?
Loose, cut, or unsecured fabric will reduce the ability of FlexZone to detect intrusions as well as increase the number of nuisance alarms.



Are there any loose signs, objects or vegetation on or striking the fence that may generate nuisance alarms, especially during high-wind conditions?



Are there any objects (trees, structures etc.) that an intruder could use to climb over the fence? Is an intruder able to crawl under the fence because of gaps between the ground and the fabric?



If cameras are used, do they provide complete coverage? Do they need to be directed to focus on or record specific areas?



If your site has outdoor equipment, network cables, or power cables along the perimeter, are they protected against vandalism or tampering? Is armored sensor cable required at specific areas to protect against vandalism?



Step 3: Determine your equipment requirements

Contact Senstar if you need help with your equipment requirements.

Processors and sensor cable

FlexZone processors are typically installed in a loop configuration. Here are the key numbers:

- Each processor supports up to 600 m (1968 ft) of sensor cable. The cable is divided between two sides (A and B), 300 m (984 ft) per side.
- Multiple processors can be daisy-chained together and share power.
- Cable is sold in rolls of 150 and 220 m (492 and 722 ft).
- Budget 15% of cable length for service loops.
- Gates require additional cable (swinging gates can have cable on the fence, sliding gates are bypassed)
- If the cables are not connected together in a loop, the end of each cable requires a terminator.

Gate protection

There are several gate options available:

- Sensor cable can be placed directly on single or double swinging gates. The cable is routed in conduit underneath to the other side.
- The FlexZone Wireless Gate Sensor protects any type of gate. Powered by a C battery and/or embedded solar panel, it is attached directly onto the gate and communicates with the FlexZone processor over an encrypted wireless link. It can also monitor the state of the gate's contact/latch.

Security system integration

Each FlexZone processor includes four relay outputs that can be configured to signal alarm and equipment status information. These relay outputs can connect to any security system with available dry-contact input points.

If you need more relay outputs (for example, to signal alarms for distinct detection zones), a Senstar I/O expander board can be used to expand the number of available relay outputs.

Power options

FlexZone requires a 12 to 48V DC power supply and draws less than 2.5W per processor. To provide continued protection in the case of a power failure, a UPS device is recommended.



FlexZone is affordable, easy to install, and works with your existing alarm system.

Step 4. Install FlexZone equipment

Installation requires two people. Most perimeters can be done in a day.

Required Tools:

Cordless drill or socket set, wire strippers, utility knife, and two pairs of pliers.

1. Install the processor in a secure location, one that minimizes the need to run lengthy power or communication cables. The processor includes mounting flanges for pole or wall-mounting.



2. Unroll and condition the sensor cable. This simple process takes two people and a couple pairs of pliers.



3. Attach the sensor cable along the fence (typically mid-way up) using UV-rated tie wraps. Extra cable should be placed on the fence near corners and other reinforced areas. At gates, the cable is tunneled in conduit underneath to the other side.



4. Connect power, communications wiring, and sensor cable to the processor. Removable connectors make it easy to attach the wires.



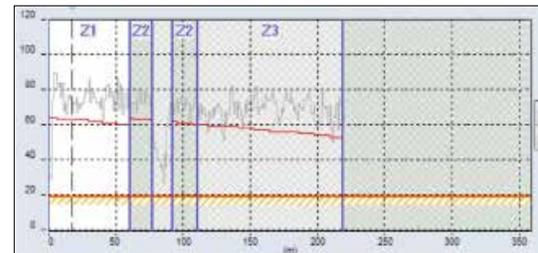
Step 5. Calibrate and test for optimal performance

Sensor calibration is easy! Attach a laptop computer to the processor with a standard USB cable and run the included software.

- To set the alarm threshold level, click the Profile button and walk the length of the perimeter while “buzzing” the fence by running a screwdriver along it. Move the threshold level up or down to match your specific fence.
- Specific areas, including gates, can be configured with their own alarm threshold levels.
- You can define detection zones to assist in monitoring. For example, each side of your perimeter could be linked to a specific camera (and even trigger pre-programmed actions if a PTZ camera is used). Zones could also be enabled/disabled in your security system based on time of day or employee activities.



“Buzz” the fence by running a screwdriver along the fabric. This lets you fine-tune the alarm threshold levels specific to your fence.



The FlexZone software lets you divide the cables into zones. Simply click and drag the zone lines to resize them.

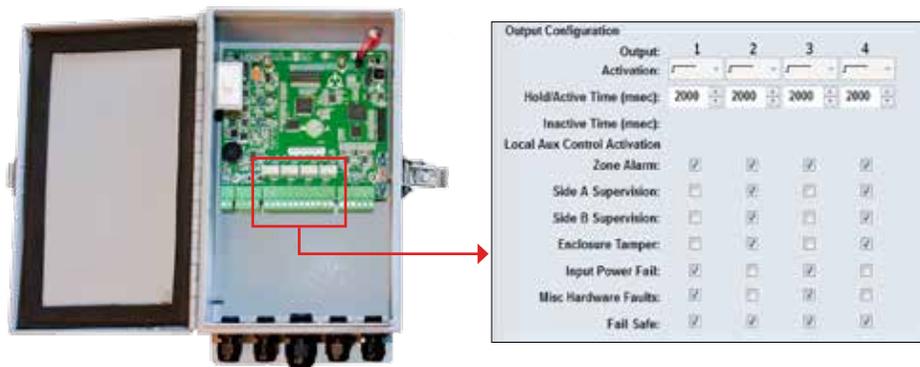
Gates can be placed into their own zone, making it possible to disable gate alarms during business hours while continuing to monitor the rest of the perimeter.

Step 6. Configure alarm outputs

FlexZone's four built-in relay outputs can be connected directly to the general purpose inputs found on most alarm systems. The function of each relay output is software-configurable. A typical system might use the following configuration:

- One for fence zone alarms
- One for Wireless Gate Sensor alarms
- One for supervision (cable cut) alarms
- One for equipment issues (tamper, power fail, hardware faults, fail safe, etc.)

In addition to assigning functions, you can also configure their activation behavior (e.g. activation high, activation low, latching, pulse, etc.)



To configure the FlexZone output relays, select the functions you want to assign.

NEED HELP?

If you have any questions or run into issues, Senstar is happy to help. We have user guides, how-to videos, and trained experts available to help you.

- Website: senstar.com
- General inquiries: info@senstar.com
- Technical support:
 - Email: support@senstar.com
 - Telephone: **1-800-390-5796**

Did you know?

Senstar designs, tests and manufactures the largest portfolio of sensor-technology-based security products in the world. If placed end-to-end, our installed perimeter intrusion detection products would stretch over 40,000 km (25,000 mi)!

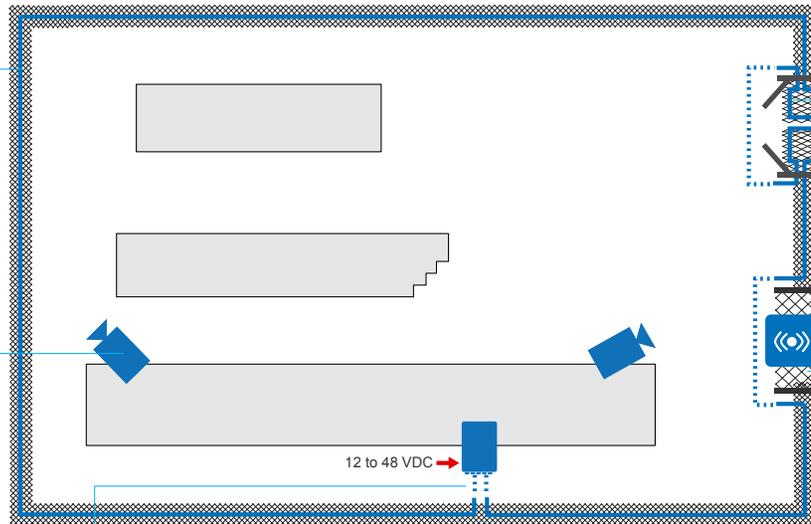
SAMPLE SITE DESIGN



The FlexZone sensor detects any attempt to cut, climb, or lift the fence fabric. When properly installed, the sensor cables are guaranteed to work in all weather conditions and have a minimum service-life of 10 years†.



Output relays on the FlexZone processor can be used to interface with your existing security system as well as to control or direct on-site security devices like PTZ cameras, sirens, or lights.



The FlexZone sensor cable can be installed directly on single and double swinging gates. To get to the other side, the cable is routed underneath the gate in buried conduit.



The FlexZone Wireless Gate Sensor eliminates cable snags and expensive retraction systems when protecting sliding gates.

Its vibration sensor detects any movement or vibration of the gate. An on-board input can be connected to a gate-mounted contact to determine if the gate is open or closed.



The FlexZone processor can be installed on the fence itself or inside a building. Installing the processor inside or near a building means you do not need to run power or communication cables out to your perimeter.

For sites with longer perimeters, multiple FlexZone processors can be connected together using only the sensor cable itself (no extra power or communications cables required).

† Service-life does not include damage caused by non-environmental forces.

