



MANUFACTURER OF PERIMETER
INTRUSION DETECTION SYSTEMS
FOR SENSITIVE SITES



SORHEA

ABOUT US

EUROPEAN LEADER IN PERIMETER DETECTION

Since 1987, SORHEA has been designing, manufacturing and marketing electronic perimeter intrusion detection systems for the protection of sensitive sites.

Our SORHEA teams work towards a single goal: to find the best solution to the security problems of the sites to be protected. Our strengths:

 **OUR TEAMS ARE COMPETENT, COMMITTED AND REACTIVE**

 **RELIABLE PRODUCTS OFFERING THE HIGHEST LEVEL OF PERIMETER SECURITY ON THE MARKET**

 **THE WIDEST RANGE ON THE MARKET**

 **SOLUTIONS THAT ADAPT TO ALL PERIMETER SECURITY REQUIREMENTS**

GOOD TO KNOW







Our perimeter intrusion detection provides:

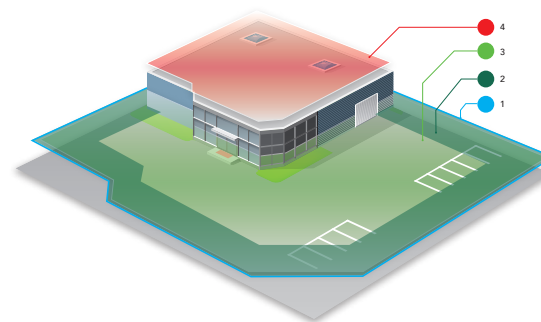
- **Early intrusion detection**
- **Early alarm verification** upon receipt of alarm information
- **Early intervention** triggered thanks to centralised alarm information

WHAT DO WE DO? INTRUSION DETECTION

The earlier the detection, the lower the risk of intrusion, potential malicious act or theft at a site.

Each client and each site has its own detection requirements:

-  **REQUIREMENT NO.1** detect intrusion at the perimeter boundary
-  **REQUIREMENT NO.2** detect movement around a site
-  **REQUIREMENT NO.3** detect approach towards a building
-  **REQUIREMENT NO.4** detect intrusion to a building



SORHEA, MEMBER OF  GROUP

A manufacturing group specialising in **intrusion, centralised access control and intelligent video.**

- **14** companies in the group
- **96 M€** turnover
- **+500** employees throughout the world

 **ITS MISSION: TO PROVIDE ACCESS SECURITY TO PROFESSIONAL SITES**

INNOVATING FOR A SAFER TOMORROW

THE EXTRA SERVICES

SORHEA, our teams at your service:

- customised support at each stage of your security project:

SITE SURVEY	TECHNICAL TRAINING
ON SITE DEMONSTRATION	COMMISSIONING ASSISTANCE
- employees committed to your service: pre-sales and administration, aftersales service with dedicated hotline
- tools to make your job easier: website, digital product catalogue, interactive diagrams, etc

OUR VALUES

EXCELLENCE

STRICT AND DEMANDING WORK PROCESSES

Every day, our employees strive for the highest standards in performing their tasks. We seek perfection and do not hesitate to challenge ourselves. Excellence drives us in every stage of your security projects: from the design of the solution to the after-sales support of our products on site.

INNOVATION

8% OF ANNUAL TURNOVER REINVESTED IN R&D

Our engineering team designs innovative products such as solar powered systems, IP solutions and critical features like embedded cyber security. For our R&D engineers, it's all about developing tomorrow's technology and ensuring the highest level of technology for our current products in order to anticipate component obsolescence, the arrival of new regulations and the use of alternative resources.

ENGAGEMENT

COMMITTED EMPLOYEES

At SORHEA, we share a strong corporate culture where every employee is driven by professionalism, mutual help, respect and goodwill. These shared values, that are part of our daily activities, aim to guarantee customer satisfaction.

FRENCH EXPERTISE



AFTERSALES TECHNICIANS

Monitoring and maintenance by our aftersales service

FRENCH ENGINEERS

Development by our R&D Team

MADE IN FRANCE

Products assembled and quality tested in France

Company member of
LA FENCH FAB



OUR CSR POLICY

Every day, SORHEA undertakes to have a positive impact on the environment and on the health and well-being of its employees.



SHORT SUPPLY CHAINS

for our equipment



TRANSPARENCY

required from all our suppliers



LOW ENERGY CONSUMPTION

of our solutions



DURABILITY

and robustness of our products



RECYCLING

of our electronic waste



PROMOTING

the integration of disabled employee

OUR QUALITY COMMITMENTS

Commitments that make the difference:

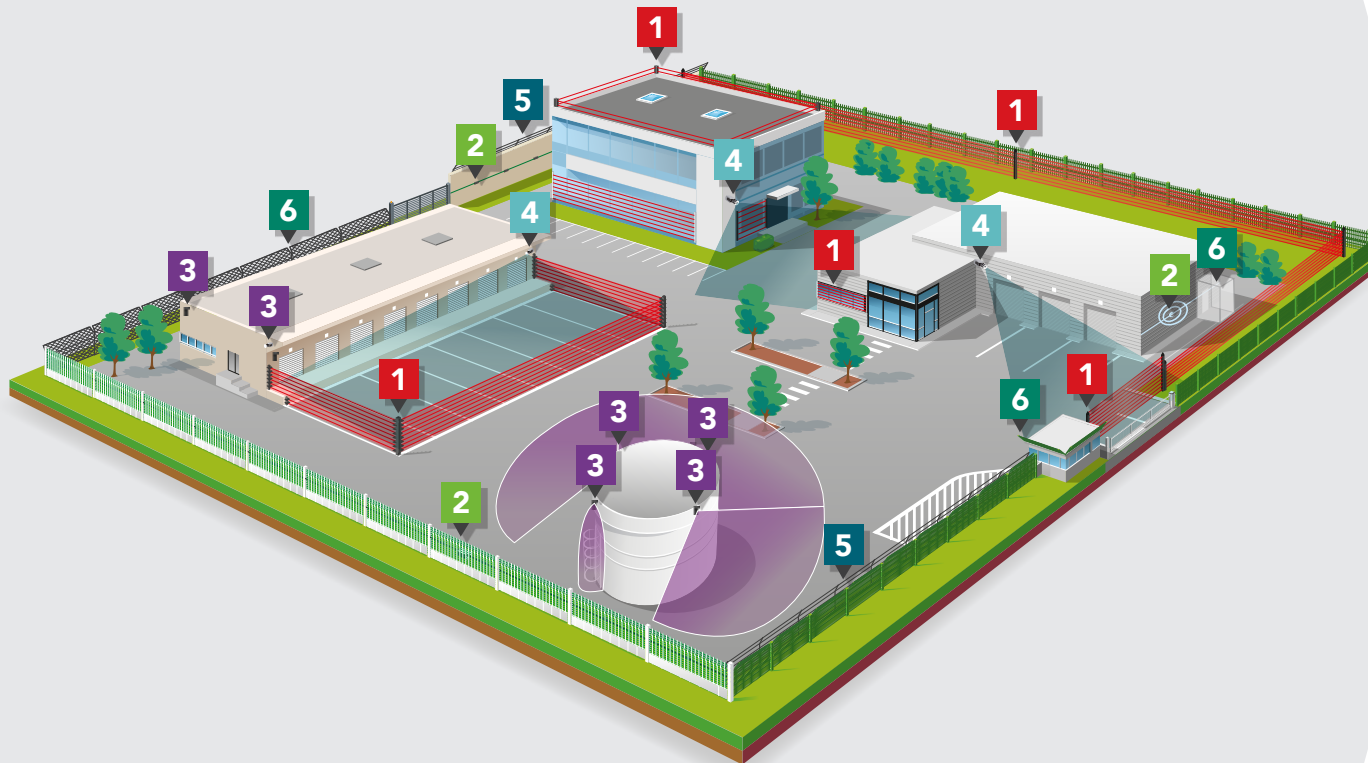
- **Quality guarantee:** 37 years' of expertise at the service of our clients
- **Recognised quality:** SORHEA has been ISO 9001 certified since 1999 and ISO 45001 certified since 2016
- **Registered patents:** G-FENCE, ACTI-FENCE®, SILUR technology
- **Customised service offer:** to support you at every stage of your project
- **Experts available:** to get your site up and running
- **An international network of integrators and installers** trained in our products

INNOVATIVE PRODUCTS FOR THE PERIMETER SECURITY OF YOUR SITES

To respond to all the specific features and constraints of your site, we offer **6 technologies**. Each has its own operating method, technical characteristics and installation recommendations. Together we design your security solution as part of a well-managed project.

The technologies developed cover **all perimeter security applications: intrusion detection, approach detection, protection and even repulsion.**

To optimise alarm processing, the **MAXIBUS-NEO concentrator** centralises alarm information from various Sorhea and third-party products in a single point: **ALL TECHNOLOGIES IN ONE**



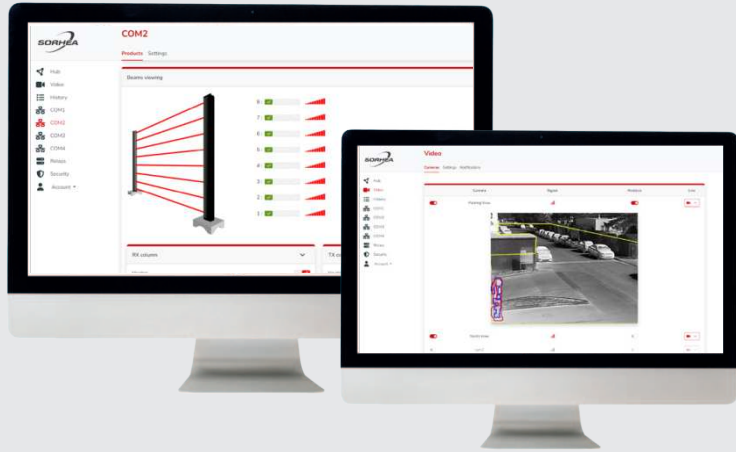
- 1 ACTIVE INFRARED BARRIERS**
 - MAXIRIS
 - SOLARIS NG
 - APIRIS
- 2 SHOCK DETECTION CABLES**
 - G-FENCE 2400
 - G-FENCE 3000
- 3 DUAL TECHNOLOGY DETECTORS**
 - PIRAMID
- 4 VIDEO ANALYSIS** NEW
- 5 ELECTRIC FENCES**
- 6 FENCE PANEL AND OUTRIGGER DETECTORS**

TO DETECT



ALL

NEW
RE



MAXIBUS-NEO

TECHNOLOGIES IN ONE



REINFORCED CYBERSECURITY

TO TRANSMIT

TO OPERATE

OPERATION
TO VMS

WITH SMART BRIDGE

OPERATION
TO ALARM CENTERS

PSIM / SUPERVISION

MAXIBUS-NEO

ALARM INFORMATION HUB WITH VIDEO ANALYSIS



CENTRALISATION of all alarm information to a single point, via networking: SORHEA products and third-party products



MANAGEMENT AND REMOTE MAINTENANCE of sensors



SECURE TRANSMISSION OF ALARMS : CYBERSECURITY



INTEGRATION WITH VMS, OPTIMISED CUSTOMER OPERATION
PSIMs



EMBEDDED VIDEO ANALYSIS TECHNOLOGY with artificial intelligence and deep learning algorithms



SIMULTANEOUS DETECTION AND ALARM VERIFICATION



CLASSIFYING ALERTS for specific needs



TARGET TYPE RECOGNITION, OPTIMIZED FILTERING



SO-MAP

PSIM SOFTWARE



SMART BRIDGE

WMS CONNECTION
SOFTWARE



Communication
with 802.1X
networks

for a communication
on secured networks



HTTPS

Encryption of data



Certificates

Customised security
management

THE LEADER IN PERIMETER PROTECTION AT YOUR SERVICE

ANNUAL SERVICE CONTRACT

The Annual Service Contract is a warranty service, the guarantee of a reliable and long-lasting security. SORHEA is committed to your peace of mind, and this Annual Service Contract offers you a 10-year warranty on products and parts.



Opting for **the Annual Service Contract** ensures the longevity of the installation thanks to our **exceptional 10-year warranty, spare parts included**. It's the promise of unparalleled peace of mind.



The Annual Service Contract includes an annual on-site **audit and technical support by our team** and always **in support of our integrator partner**. For each intervention, a detailed technical report is sent. This close-knit collaboration **ensures continuity of service and optimal performance of the security system**.

THE ADVANTAGES OF THE ANNUAL SERVICE CONTRACT:

- **Replacement of spare parts** during annual visit and throughout the year
- **Extended warranty on all electronic parts**
- **Audit and on-site commissioning assistance** included

EXTRA SERVICE



Customised support at each stage of your project

SITE SURVEY

Our experts will study your specific requirements and recommend the technologies and products best suited for your projects.

TECHNICAL TRAINING

To help you fully understand your chosen technologies, we organise training sessions for your installation and maintenance staff. Our team of experts can offer this training directly onsite.

HOTLINE

Our technical assistance team can help you diagnose problems and guide you through the right procedures.

You can contact our experts from Monday to Thursday from 8:30am to 5pm and until 4:30pm on Fridays.

COMMISSIONING ASSISTANCE

SORHEA on-site assistance is a service designed to optimize the set-up and commissioning of all our products. It is provided on-site by our technical expert equipped with light equipment and tools designed specifically for our products.

Our technical expert accompanies your technicians, supervising, approving technical actions and thereby assisting in the set-up of our products on-site.

SORHEA HOTLINE



by telephone: **+33 (0)4 87 24 20 20**



by email: **sav@sorhea.fr**

SORHEA

YOUR BUSINESS APPLICATIONS

FOR EACH OF YOUR SITES, A CUSTOMISED DETECTION SOLUTION

ENERGY

Nuclear, thermal, hydroelectric and solar power plants



INDUSTRY

Production sites, agri-food, petrochemical, pharmaceutical, SEVESO sites



MILITARY, POLICE, PRISONS

High security sites, military bases, detention and short term detention centres



LOGISTICS & TRANSPORT

Logistic platforms, car dealerships and car fleets, seaports, airports, railway networks and depots



UTILITIES

Water treatment, power production, telecommunications, waste recycling



VILLAS & CHÂTEAUX

Private villas, museums, historical monuments



SERVICES SECTORS

Datacenters, administrative buildings, headquarters



RETAIL & LEISURE

Public premises, shopping centers, amusements parks

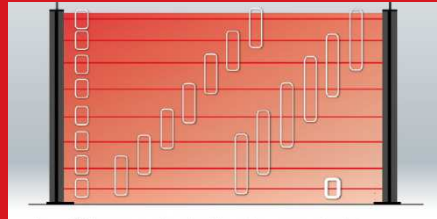


THE TECHNOLOGY

ACTIVE INFRARED BARRIERS

SORHEA'S INFRARED

- More than 37 years experience in active infrared perimeter detection
- Highly reliable active infrared technology by SORHEA thanks to our multiplexing technology
- Optimised installation and maintenance and easy operation: alignment tool



The different detection modes that can be configured on our barriers ensure a high level of detection reliability. These different detection modes (time-controlled dual-detection, mono-detection, time-controlled lower beam mono-detection) can function simultaneously, making it possible to filter out unwanted alarms (birds, animals, etc.).

HOUSINGS DESIGNED FOR OUR ELECTRONICS

CLASSIC

3000 HOUSING

- Small footprint
- Easily adaptable
- Easier wall or overhang attachment
- Height: up to 5 m

3100 HOUSING

- Control of cell height in double direction
- Built-in anti-climbing cap
- Height : up to 3 m

CUSTOM

3200 HOUSING

- Application for steep slopes
- Control of cell height in double direction
- Height: up to 5 m

3400 HOUSING

- Marine applications: resists humid and salty environments
- Withstands sea spray and waves

THE ESSENTIALS



COLIRIS

From 1 m - 3 cells to 2 m - 4 cells



TIME AND MONEY SAVINGS

- Easy cabling



SIMPLE COLUMN INSTALLATION

- Identical columns

MAXIRIS

2 m 6 cells



3 m 10 cells*



HIGH DETECTION CAPABILITY

- High-performance columns with high cell density



REMOTE MAINTENANCE

- Connection of the system to network
- Diagnostics: a live history log of settings and beam visualisation
- Remote visualisation



RELIABLE DETECTION

- Multiple simultaneous detection modes
- Zoning functionality in association with video alarm verification



*Up to 18 cells for 5 m high columns (on demand)

THE AUTONOMOUS



SOLARIS NG

↑↓ from 2 m - 5 cells
to 3 m - 10 cells

- ✓ **HIGH PERFORMANCE AUTONOMOUS BARRIER**
 - High cell density columns
 - 100 m range

- € **LOWER COSTS**
 - No civil engineering: solar powered with a DRN dynamic mesh radio network

- 💡 **ADVANCED FEATURES**
 - Train filtering functionality
 - Polyacetal housing for a 100% plastic column (optional)
 - Configuration software



THE SPECIFICS



APIRIS

FOR CORRIDOR DETECTION APPLICATIONS

- ➔ **COMBINES VOLUMETRIC DETECTION WITH AN INFRARED BARRIER**
 - A microwave barrier combined with MAXIRIS technology

- ✓ **VERY HIGH PERFORMANCE SOLUTION**
 - Simultaneous multimode detection & Zoning function
 - High performance and high cell density columns



BIRIS

FOR SINGLE ZONES

- € **COST-EFFECTIVE SOLUTION**
- 🎯 **IDEAL FOR THE PROTECTION OF SPECIFIC LOCATIONS**
 - Gates
 - Top of walls
 - Roofs



MINIRIS

FOR FAÇADE APPLICATIONS

- 💡 **DESIGNED FOR DISCREET INSTALLATION ON BUILDING FAÇADES**
 - Customised painting on request

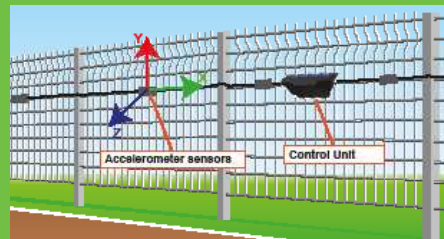


THE TECHNOLOGY

SHOCK DETECTION CABLES

SORHEA'S ACCELEROMETER

Unlike other shock detection cables, our cable offers **sensors with inbuilt accelerometers** in a standard cable, making the system easy to install. It is weatherproof (unaffected by strong winds, heavy snow, heavy rain) and can be **installed on any type of fencing**, even on different fencing at the same site.



Accelerometer-based shock detection cable technology can detect movement in fencing or panelling in all three vectors (x, y, z). The acceleration of the three vectors combined, measures the desired signal intensity that will be used to trigger the alarm.

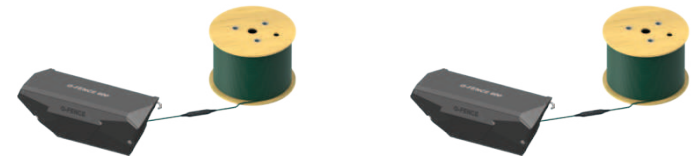
SYSTEM SUITABLE FOR WALL-MOUNTING

In addition to being perfectly designed for installation on any type of fence, our G-FENCE cable can be installed on walls or cladding.

Our shock detection cable solutions can therefore be installed inside a building to be protected.



THE ESSENTIALS



G-FENCE 600

G-FENCE 600Z

SIMPLE AND ADAPTABLE SOLUTION



ECONOMIC SHOCK DETECTION CABLE SOLUTION

- Quick and easy to install



ADAPTABLE TO THE SITE ENVIRONMENT

- Set-up and fine-tuning via an embedded web server: simplified set-up of sensitivity and number of impacts

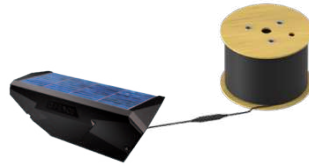
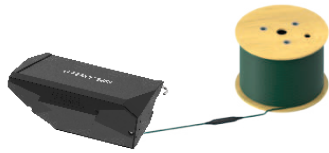


PINPOINTS THE LOCATION OF THE INTRUSION: G-FENCE 600Z

- Integrated Zoning function that can create up to 10 detection zones per control unit (for 600m)



THE SPECIFICS



G-FENCE 2400

MULTIMODE ALARM TRANSMISSION



SIMPLIFIED ALARM TRANSMISSION

- Direct integrability with VMS
- Simultaneous multimode alarm transmission: dry contact outputs, IP network Modbus/API outputs, BUS output to MAXIBUS



SUITABLE FOR ALL YOUR SITES



REMOTE CONFIGURATION, MAINTENANCE AND UPGRADES

- Reduction in onsite interventions thanks to the "all-remote" approach



UNPARALLELED EASE OF INSTALLATION



G-FENCE 3000

AUTONOMOUS SOLUTION FOR LARGE PERIMETERS



PROVIDES LONG-DISTANCE PERIMETER PROTECTION

- Up to 3200 m per system and up to 4 x 3200 m of detection cable per MAXIBUS UNIVERSAL
- Fully redundant alarm information



LIMITED CIVIL WORKS COSTS

- Powered by solar panels



INTEGRATION INTO VMS SOLUTIONS

- Compatible with VMS systems via our MAXIBUS UNIVERSAL hub



SET-UP AND DIAGNOSTIC INFORMATION

- Integral cartography
- Zoning: up to 128 zones per 3200 m



REINFORCED CABLE

FOR BARBED WIRE APPLICATIONS



EXTRA CABLE PROTECTION

- For installation on barbed wire where a standard cable could be damaged



EFFICIENT MATERIAL SOLUTION

- Resistant and protective tube that encloses the G-FENCE cable

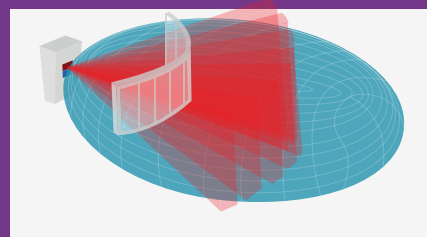


THE TECHNOLOGY

DUAL TECHNOLOGY DETECTORS

SORHEA'S TECHNOLOGY

- **Combination of two technologies**
a microwave Doppler sensor
and a passive infrared sensor
- **Independant set-up and fine-tuning of** each technology
- **High-performance detector that synchronises two functions:**
Doppler and radar



The combining of a microwave Doppler sensor and a radar function with a passive infrared sensor, delivers a very high detection power while filtering out unwanted alarms.

THE SPECIFICS



PIRAMID ATEX

**MICROWAVE INTRUSION DETECTOR
IN EXPLOSION-PROOF HOUSING**

- ✓ **COMPLIANT WITH ATEX STANDARDS**
- 🎯 **ULTRA-SENSITIVE SITE PROTECTION**



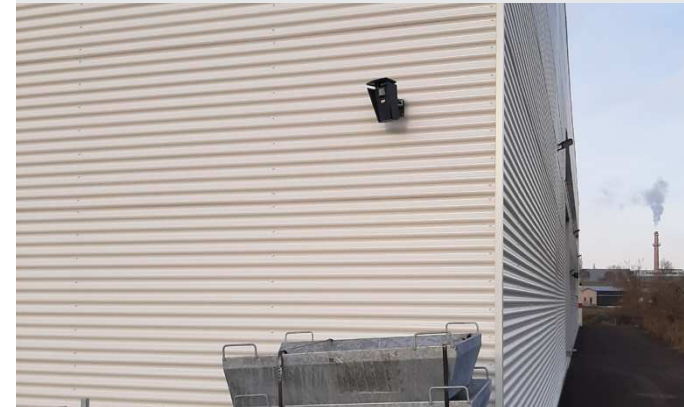
THE ESSENTIALS



PIRAMID

**VOLUMETRIC DETECTOR
DUAL TECHNOLOGY**

- ✓ **RELIABLE DETECTION**
 - Combination of two technologies
- ⚙️ **RANGE CONTROL**
 - Irrespective of sensitivity settings
- 🎯 **RESPONSE TO SPECIFIC APPLICATIONS**
- ✳️ **MULTIPLE COMMUNICATION MODES**
 - Radio, RS485 Bus cable, dry contacts
- 👍 **MAXIBUS UNIVERSAL COMPATIBLE**
 - Integration with VMS



THE TECHNOLOGY

FENCE ELECTRIFICATION SYSTEMS

SORHEA'S ELECTRIFICATION SYSTEMS

- **APAVE certified systems** (France and Belgium)
- **Electrification of existing fences** with electrified taut wires
- **Detection function as well as repulsion**

These systems are also equipped with an overhead 360° sensor (eg: on the overhang).

Our electrified system is spaced 12cm from the fence to ensure complete safety for anyone walking past an electrified site.

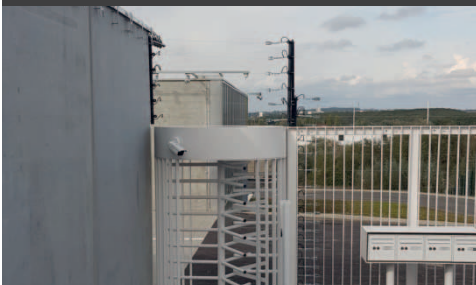
We also offer a Low-Voltage option which provides intruder detection only.

THE SPECIFICS



SI-TOP

ELECTRIFIED OUTRIGGER



SI-LOCK

FENCE PANEL LOCK SYSTEM



THE ESSENTIALS



SILUR FX

1 OR 2 WIRE DETECTION AND ELECTRICAL REPULSION

SILUR 360

DETECTION BY PRESSING ON 1 WIRE



GUARANTEED SITE INTEGRITY AND SECURITY

- Very high repulsion power
- Detects any type of intrusion attempt



RELIABLE DETECTION

- No false alarms



VERY HIGH SECURITY DETECTION

- Standard two-strand intrusion detection or very- high-security single strand detection



TIME AND MONEY SAVINGS

- No structural work required: simple installation on the existing fence of the site to be protected



THE TECHNOLOGY

DETECTOR FENCES AND OUTRIGGERS

SORHEA'S DETECTOR FENCE

- **Zero unwanted alarms**
- **Patented system and** registered design
- **Customisation of the fence panel** (panel size and pattern layout)
- **System sold with installation included**

Each fencing panel consists of two plates that are electrically isolated from the each other. One is connected to the earth, and the other to live.

If either plate is pierced or cut by an intruder, a short-circuit is created and an alarm is triggered.

THE SPECIFICS



ACTI-TOP

DETECTION OUTRIGGER

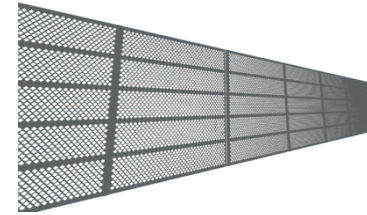


ACTI-GRID

FOR PROTECTION OF CANALS



THE ESSENTIALS



ACTI-FENCE®

DETECTION FENCE



COMBINES DETECTION AND PHYSICAL ENCLOSURE

- Anti-intrusion fencing with alarm triggered by cutting, ripping or climbing



SYSTEM RELIABILITY

- System patent No.14 62148



VERY HIGH SECURITY DETECTION

- No false alarms
- Instant response time
- Detection accuracy for each panel



THE TECHNOLOGY

VIDEO ANALYSIS

SORHEA'S VIDEO ANALYSIS

- **Reliable and powerful solution:**
Omission-free reliable Detection :
Systematic detection whatever the environment with almost no false alarms.
- **Immediate alarm qualification:** by alarm receiving centers or central control stations.
- **End-to-End assistance support:** recommendations and expert advices, implementation assistance and training by Foxstream.

The objective is to capture any intruder in the monitored location regardless of environmental conditions while filtering false alarms.

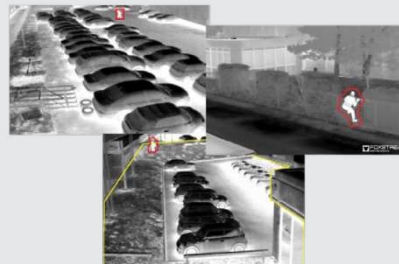
Thanks to our integration with VMS, CMS, PSIM... the video of the alarm is sent instantly to alarm receiving centers or monitoring stations enabling the right decision to arrest the intruder immediately.

OTHER VIDEO ANALYSIS SOLUTION IN THE VITAPROTECH GROUP

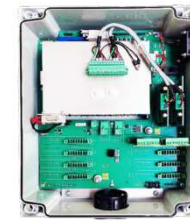
Foxstream's video analysis, on the market for more than 20 years, is a state-of-the-art solution integrating the latest innovations in AI thanks to a constant investment in R&D.

Efficient and powerful algorithms detect the intruder in any position and environment and eliminate unwanted alarms thus allowing efficient video qualification.

This Foxstream technology that offers powerful and effective solutions for any site requesting high level security is also the one integrated into MAXIBUS-NEO.



THE ESSENTIALS



NEW

MAXIBUS-NEO

ALARM INFORMATION HUB WITH VIDEO ANALYSIS



CENTRALISATION OF ALL ALARM INFORMATION TO A SINGLE POINT

Via networking: SORHEA products and third-party products



NEW DETECTION TECHNOLOGY ADDED: VIDEO ANALYSIS



SECURE DATA TRANSMISSION OF DATA: CYBERSECURITY



INTEGRATION WITH VMS



FOXBOX

ALL INCLUSIVE
VIDEO ANALYSIS FOR
OUTDOOR DETECTION



FOXVIGI

OUTDOOR DETECTION
WITH «CUSTOM-MADE»
VIDEO ANALYSIS



FOXTOOL

PROJECT DESIGN
STUDY



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