LEOPARD FENCE
Fiber Optic Intrusion Detection System

What is LEOPARD FENCE?
It is a sophisticated security system used for outdoor that becomes your fence into an intruder alarm, fence mounted and for perimeter security applications, LEOPARD FENCE is able to discriminate between different intrusion events (climbing, cutting or lifting).

How does it work?
A disturbance in the fibre optic sensor cable is detected and analyzed using the V055xx unit. When any given disturbance exceeds the conditions we have established, an alarm will be generated. The virtual anemometer equipped by Leopard Fence allows the system to effectively discriminate between events caused by strong winds (or any other atmospheric phenomena) and intrusion events. It assures the system to have the highest probability of detection while minimizing the nuisance alarm rate.

Types of Fences
It is easily attached to most types of fences (chain link, welded, etc)

Why to use LEOPARD intrusion detection system?
› EMI and RFI immunity.
› Closed system, unaffected by external factors (fog, humidity, light, etc).
› Active system, constantly self-verifying it is properly running.
› Easy to install.
› Easy to integrate with other security systems.
› Low maintenance / Cost Effective System.
› High POD, Low NAR.

Where to install LEOPARD FENCE?
› Airports
› Logistic Centers
› Borders
› Solar Farms
› Industrial sites
› Weapon Depots
› Prisons
› Communication sites
› Nuclear power plants
› Military bases
› VIP residences
› Other...
Main analysis hardware.

**V055xx** 400m/perimeter zone. With emitter and laser receiver.
**V056xx** 400m/perimeter zone. With laser receiver.
**EM105xx** 400m/perimeter zone. With laser emitter.

**Type of control.**
Double microcontroller.

**Voltage & consumption.**
18-48Vdc. / <5w.

**Operating temperature range.**
-20 ºC to 70 ºC.

**Laser type.**
Class III-B.

**Anemometer.**
Not needed. Virtual anemometer included.

**Auxiliary inputs for other devices.**
3 Inputs.

**Outputs.**
3 x 2 output relay contacts 230Vac/0,3A.

**Setup and monitor communications.**
...xx = “ ” USB type B connection (small installations relay conection).
...xx = “C” USB & dual RS485 with regeneration (big perimeters).
...xx = “IP” USB & IP (RJ45) connection (all kind).

**Power-cut management.**
Yes. 12v. external battery connection with charge surveillance and management (“BATT01”)

**Setup and monitoring.**
(For installers)
Yes, with “Leopard Perimeter software”

**Standard connections.**
1/2u. optical fibre ST connectors.
3u. 18-48Vdc power input connectors.
1u. 12Vdc external battery connector.
1u. 3 input connector.
1u. 3 x 2 relay connector.
1u. USB connector.

**Other conenctions.**
(Depends on model)
2u. RS485 connectors.
1u. IP (RJ45) connector.

**Fiber optic sensitive cables.**
(3 standard models)

<table>
<thead>
<tr>
<th>Model</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>CV0</td>
<td>Single sensitive cable</td>
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<tr>
<td></td>
<td>1u. Sensitive fiber</td>
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<tr>
<td></td>
<td>Reinforced steel mesh</td>
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<tr>
<td>CV1</td>
<td>All-in-one Leopard</td>
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<tr>
<td></td>
<td>1u. Sensitive fiber</td>
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<td></td>
<td>1u. FTP comm cable</td>
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<tr>
<td></td>
<td>2x2,5 mm2 power wires</td>
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<tr>
<td>CV2FF</td>
<td>All-in-one Leopard+cameras</td>
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<tr>
<td></td>
<td>1u. Sensitive fiber</td>
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<tr>
<td></td>
<td>1u. FTP comm cable</td>
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<tr>
<td></td>
<td>3x4 mm2 power wires</td>
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<td>12x62,5/125 camera FO</td>
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**Sensitive optical fiber.**
MM 200/230Qm.
Special PVC cover.
With rodents repellent.
Puling protection made of Aramid fiber.
Resistance to fire (UNE-EN 50266).
Low content of Halogens (UNE-EN 50267).
Low smoke density (UNE-EN 50268).

**EEprom setting parameters.**
Fence kind.
Wind discrimination.
Cutting sensibility.
Number of cuttings for alarm.
Climbing sensibility.
Number of Climblings for alarm.
Mixed events for alarm.

**External & eeprom serial identification.**
Yes.

**Firmware updating.**
Yes.

**Long term event memory.**
6 months / 200 events.

**Big perimeter auxiliary units.**
Master units (M217)
Relay units (R220)

**Big perimeter graphical monitoring.**
Yes, with “Leopard API” & “Leopard Control Center” software.