

# LEOPARD SOIL

Soil intruder detection for outdoors



## ¿What is LEOPARD SOIL?

It is an alarm sensor system that protects outdoor soils from intrusion. **LEOPARD SOIL** is buried in your perimeter in order to detect footsteps of the intruder.

## ¿How does it work?

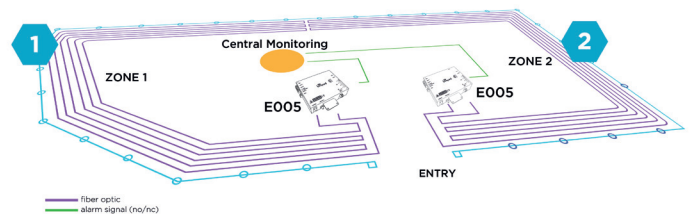
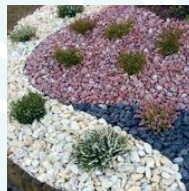
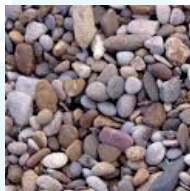
**LEOPARD SOIL** has two main components:

- › The sensitive fiber optic cable that is buried in the protected area.
- › The analyzer who supervises the received light wave, filters false alarms and generates an alarm when it is detected.

**LEOPARD SOIL** is able to detect the small pulse generated by a step on the sensitive area, in this way when the transmitted vibration fits with the intrusion shape, system generates an **ALARM** signal.

**LEOPARD SOIL** is discrete and undetectable, in this way your garden or perimeter keeps its aspect having a cutting-edge security system.

## Installation



Mobile soils non compacted as gravel, ornamental stones, etc...

Cable spreading: We fill the perimeter with the cable in a zigzag way, keeping the distances described in the cable datasheet.

## ¿Why LEOPARD SOIL?

- › Totally hidden security system. This feature does not alert the intruder.
- › Dust and moisture do not affect the system behaviour.
- › Electromagnetic fields cannot affect the system.
- › Closed system, the climatic conditions do not influence the system (rain, fog, wind, etc...).
- › Active system, with auto-checking.
- › Easy installation.
- › Fully compatible with other security systems.
- › Not special maintenance needed, the anti-weed sheet avoid the cleaning.
- › High quality detection.

## Where to install LEOPARD SOIL?

- › Broadcast antennas
- › Military bases
- › VIP residences
- › Paths to access outdoor sites
- › Orchards
- › HV electrical transformer areas
- › Airports
- › Weapon depots
- › Farms
- › Borders
- › Prisons
- › Solar farms
- › Other...

<b>Main analysis hardware.</b>	<b>E005xx</b> 1000m cable/zone (200m standard perimeter)		
<b>Type of control.</b>	Double microcontroller.		
<b>Voltage &amp; consumption.</b>	18-48Vdc. / <5w.		
<b>Operating temperature range</b>	-20 °C a +70 °C.		
<b>Laser type.</b>	Clase III-B.		
<b>Auxiliary inputs for other devices.</b>	3 Inputs.		
<b>Outputs.</b>	3 x 2 x 2 output relay contacts 230Vac/0,3A.		
<b>Setup and monitor communications.</b>	<b>...xx</b> = " " USB type B connection (small installation relay connection). <b>...xx</b> = "C" USB & dual RS485 with regeneration (big perimeters). <b>...xx</b> = "IP" USB & IP (RJ45) connection (all kind).		
<b>Power-cut management.</b>	Yes, 12v external battery connection with charge surveillance and management. ("BATT01")		
<b>Setup and monitoring.</b> (for installers)	Yes, with "Leopard Perimeter" software.		
<b>Standard connections.</b>	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.		
<b>Other connections .</b> (Depends on model)	2u. RS485 connectors. 1u. IP (RJ45) connector.		
<b>Fiber optic sensitive cables</b> (3 standard models)		<b>CE1</b> Single sensitive cable 1u Optical fiber.	<b>CE1M</b> Shielded sensitive cable 1u Optical fiber + galvanized steel mesh.
			<b>CA0</b> Hybrid sensitive cable 2u Sensitive fibers 2u net fibers. Super-strong cable (vehicle resistant).
<b>Sensitive optical fiber.</b>	MM 200/230µm. Special PVC cover. With rodents repellent. Pulling protection made of Aramid fiber. Resistance to fire (UNE-EN 50266). Low content of Halogens (UNE-EN 50267). Low smoke density (UNE-EN 50268)		
<b>EEprom setting parameters.</b>	Detection sensitivity Event number for alarm Activation mode Relay 1&2 Working mode Input 1 & 2 & 3 Super-speed detection mode		Laser emitting control. Station number. IP address, subnet mask, default gateway*
<b>Alarm types detected by analyzer.</b>	Footsteps on sensor Running vehicle on sensor Fiber sabotage or broken Main electrical supply cut		Low battery alarm Input 1 alarm (box door switch) Input 2 alarm Input 3 alarm
<b>Serial number traceability (internal and external).</b>	YES.		
<b>Firmware update.</b>	YES.		
<b>Event memory.</b>	6 months / 200 events.		
<b>Auxiliary units (big perimeters).</b>	Master unit ( <b>M217</b> ) Relay unit ( <b>R220</b> )		
<b>Graphical monitoring software</b>	YES, with "Leopard API" & "Leopard Control Center" software.		

\* Available in IP units

