

# Security systems for PV installations



- Manufacturers based on the innovation, the perfection and the specialty.
- We design, develop and supply equipment of new technology with Plastic Optical Fiber (POF)
- We have solutions for all the needs of the areas of security, telecommunications, energy and Industrial Control.
- We develop projects according on the needs of our customers.

## Security of the components of a photovoltaic installation

Detection of the theft of the solar panels by cutting off the POF by passing the fiber through the **free holes** of frame panels, protecting individually each panel.

GREALTEC

In the same way you can incorporate the protection in the **batteries**, **inverters** and **electrical wiring**.



Notice of incidence up to 5 different mobile numbers.

Possibility of monitoring up to 80 facilities by our management software.

In case of no phone coverage used **satellite communication**.



### **Perimeter Security**

Perimeter protection both fences and gates.

Mounting on any type of fence.

Possibility of provision of fence including our system already integrated.

Two types of systems according to the type of fence:

#### **Optical-Fence:** For chain-link fence.

https://www.dropbox.com/s/sji1plhme746t5u/20151019 Optical%20Fence GREALTEC.mp4?dl =0

**RS-Fence:** For rigid and semi-rigid fences with seismic sensor. <u>https://www.dropbox.com/s/1r5pxotan6apu6x/20151019\_RS-Fence\_GREALTEC.mp4?dl=0</u>

### Solar Pumping Management

Our PLC is designed to give solution to the management and security of the pumping solar.

GREALTEC

Monitoring of the water level in well and cistern, faults in installation, flood in facilities and anti-theft system.

Can be turned on and off **remotely up to 4 systems**: On and off of pumps, deterrents such as sirens, spotlights, etc.

The management of the PLC and monitoring of alarms realizes by means of messages **SMS** to up to 5 mobiles route GSM or with the **APP** of GREALTEC by means of Smartphone.





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### Example of installation

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Inputs: 1

- 1- POF anti-theft PV panels.
  - 2- High water level
  - 3- Low water level
  - 4- Anti-flood sensor
  - 5- Door control

Outputs: A- Solar Pump

- B- Sound alarm
- C- Anti-theft lights
- D- SMS alarm

# GREALTEC Advantages compared to other security systems

#### POF: impregnable, 0% false alarms, easy mounting and economic

✓ Cooper cable: Can be shunt. Weather shocks causing false alarms.

✓ Welded panels and structures: In case of maintenance difficulty in dismantling the panels being useless.

✓ Infrared Systems: False alarms by movement of animals and weather shocks.

✓ CCTV: cost of installation, maintenance and operation 500% higher than our system.

#### Links to explanatory videos

https://www.dropbox.com/s/zw9ymvuvj9tt5gn/SecuritySystem\_SolarPlant\_GREALTEC.mp4?dl=0 https://www.dropbox.com/s/o55bgpx5vthd0gj/BasicKIT\_3KW\_GREALEC.mp4?dl=0 https://www.dropbox.com/s/pi0uc6ey54dv4is/AssemblyConnector\_GREALTEC.mp4?dl=0



#### Experience



More than 220 MW in **solar farms** in Italy, United Kingdom and Spain.



More than 200 KW in **PV Off-grid** installations in Europe and Latin America.



More than 100 installations of **Solar Pumping** in Spain, Latin America and Africa.



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