

# PERIDECT

Underground

## PROTECTS YOUR PERIMETER MORE EFFECTIVELY

- + Invisible protection of your premises
- + Detects an intruder **directly on the boundary** of the protected area
- + Gains **sufficient time** for the security operator for an **effective reaction**



## INDUSTRIES AND APPLICATIONS

- + Industrial and commercial sites
- + Strategic and critical infrastructure

- + Power plants
- + Airports
- + Prisons
- + Military areas
- + Fuel depots
- + National borders

**Sieza - Success Stories**  
Power plants in South Korea



**Sieza Peridect+ protects objects of**

PERIDECT+ perimeter detection system protects several power plants in South Korea. The system is highly reliable and provides early detection of intrusions, ensuring the safety of the power plants and the people working there.

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**Sieza - Success Stories**  
Fuel depots in Poland



**Sieza Peridect+ has complied redundancy requirement**

PERIDECT+ protects several fuel depots in Poland. It is the redundancy of the whole system was a mandatory requirement. The system is highly reliable and provides early detection of intrusions, ensuring the safety of the fuel depots and the people working there.

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**Sieza - Success Stories**  
Distribution Fuel Depot in Poland



**Sieza Peridect+ brings invisible protection to the state's critical infrastructure**

PERIDECT+ underground protects one fuel depot in Poland. It is a perimeter protection of strategic importance, which belongs to the assets that are essential for the functioning of a society and economy. The mandatory requirement of the customer was a system that can provide fence and hidden (underground) detection and a system that supports integration with CCTV for visual verification.

**Ticking the Boxes**

- Combination of fence and underground protection
- Extremely low nuisance alarm rate
- Native integration with IP cameras

During the pilot tests, our integration partner in Poland proved that thanks to the unique detection algorithms and the ability to set the sensitivity of each detector individually, Peridect+ effectively eliminates all false alarms caused by parasitic vibrations. With Onvif-S support, IP cameras are automatically directed to the intrusion area, in case of an alarm. This two-step verification makes the installation very reliable and secure.

**Spec list**

- 5x CUP+
- 1xSDx DSP+
- 3km of perimeter



## PERIDECT+ UNDERGROUND KEY FEATURES

### + Extremely low nuisance alarm rate (max 6 alarms/1 km/1 month)

Thanks to „differential logic“ algorithms and the ability to set the sensitivity of each detector

### + Successful detection rate (higher than 95%)

Thanks to the ability to increase the sampling rate of the communication bus

### + Buried and fence detectors at one detection line

A combination of fence and buried detectors at one detection line supported

### + Perimeter length (1x LCP+ covers up to 1km)

Length of protected area can be hundreds of kilometers if you cascade LCP+ and CUP+ units

### + Detection accuracy (1 – 2m)

Addressable sensors Peridect+ Underground support very high detection accuracy



## PERIDECT+ UNDERGROUND OTHER FEATURES

### + IP68

Complete protection against contact (dust-tight) and water

### + Modularity

Modular architecture allows easy modification and system extension in the future

### + Integration with 3<sup>rd</sup> party systems

Open API are available for 3<sup>rd</sup> party system integration

Possibility to connect third party systems using I/O modules:

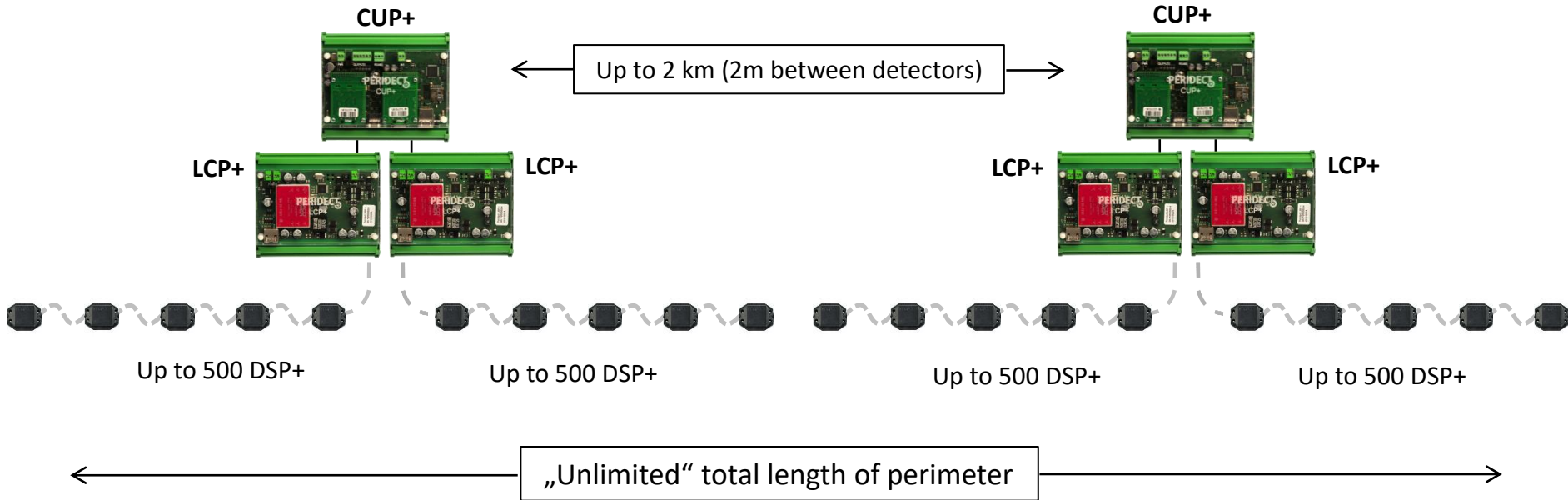
- LIP+ directly on the detection line
- IOP+ (RS485) located near to CUP+ (max 1200m)
- IOP+ (LAN, RS485) located literally anywhere in the world

### + Native integration with IP cameras

IP PTZ camera can be automatically directed to move to the intrusion area for two-step verification



## TYPICAL INSTALLATION EXAMPLES

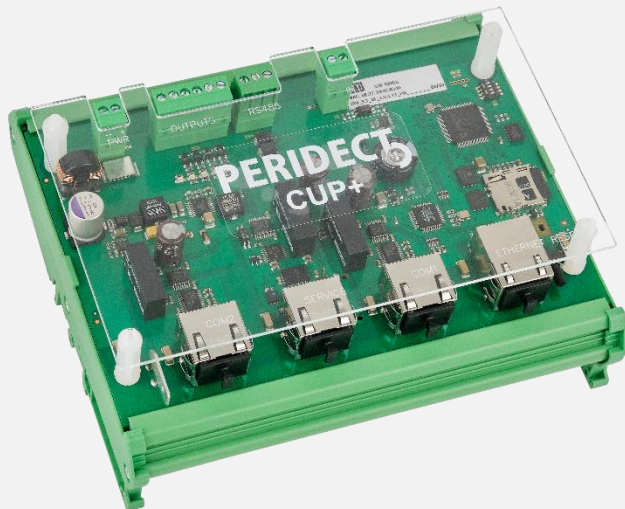


## TECHNICAL FEATURES

- + Up to **500 addresses** per one LCP+ (up to 1 km of perimeter)
- + **Separators** securing the operation of the detection line (20 per LCP+)
  - Surge protection
  - Communication bus data protection
- + **Individual sensitivity set up** of each detector (sensor)
- + **LAN, RS485** connections directly build in the CUP+ control unit
- + **No moving parts** – higher reliability (MTBF ~ 10<sup>6</sup>h)
- + **Analogue cameras** support
- + **Detection line secure protection** with stainless steel tube



## Control Unit PERIDECT+ (CUP+)



- > Industrial PC (ready for 24/7 operation)
- > LAN port (RJ45)
- > 2x RS232 (RJ45) for LCP+ and PVJ
- > 4x directly controlled logical outputs
- > 1x logical input (tamper)
- > RS485 communication bus integrated

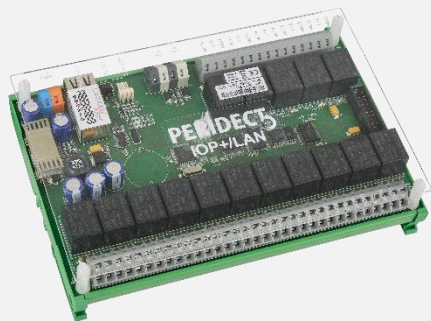


- > 2-wire communication bus driver
- > Galvanic isolation of detection line
- > Up to 500 addresses:
  - DSP+
  - LIP+
- > Symmetrical connection of detectors
  - Higher EMI resistance
  - Easier installation

## Line Controller PERIDECT+ (LCP+)

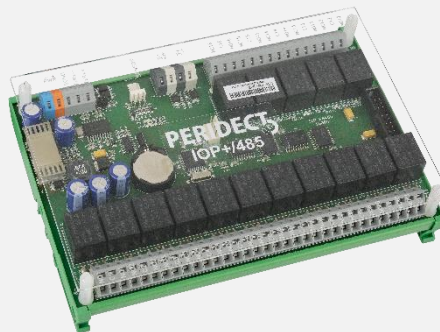


**I/O LAN Module PERIDECT+ (IOP+/LAN)**



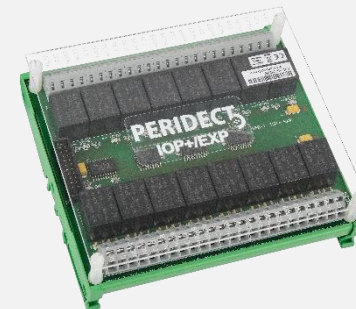
- > 16 relay outputs
- > Switching contacts
- > 2 double balanced inputs

**I/O RS485 Module PERIDECT+ (IOP+/RS485)**



- > 16 relay outputs
- > Switching contact
- > 2 double balanced inputs

**I/O Expansion Module PERIDECT+ (IOP+/EXP)**



- > Expansion module for IOP+/LAN and IOP+/RS485
- > Switching contacts
- > Additional 16 relay outputs

## Detection Sensor PERIDECT+ (DSP+/U)



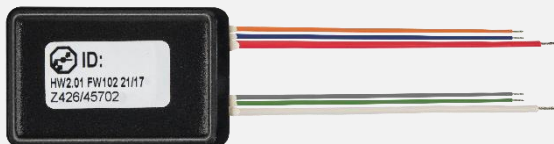
- > Increased sensitivity
- > Remote setting of sensitivity
- > Software sensitivity set up

## Line Separator PERIDECT+ (LSP+/U)



- > Limits short-circuit on the detection line
- > Maximum 20 separators per one line
- > Built-in overvoltage protection

## Line Input PERIDECT+ (LIP+)



- > 2 double balanced inputs + 1 output
- > Fitting on any place on the line
- > Max. 64 per one CUP+ (128 inputs)

## Line Protector PERIDECT+ (LPP+/U)



- > Built-in overvoltage protection

## Plastic cover for all detection line components



- > IP68 polycarbonate cover
- > Stainless steel tube protecting cables between detectors

## INSTALLATION RECOMMENDATIONS

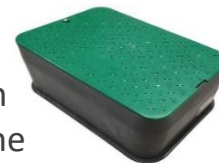
### + Proper inspection of the installation site and **identification of sources of parasitic vibrations**

- Pumps
- Conduit
- Proximity to railways and roads
- Trees

### + Possibility to use a **demo case for analysis of possible parasitic vibrations** (burying a short test detection line)

### + **Service access**

- Service box after each 30 detectors
- Suitable for connecting the underground and fence detection line of the Peridect+ and placing the LSP+ to the detection line





Eliminate number of false alarms and protect  
your perimeter even more effectively!

**Sieza s.r.o.**