

## DUAL TECHNOLOGY SENSORS (IR+MW)

The sensors are used for the protection of long perimeter sectors with high requirements for the mean time for false alarm, i.e. high immunity for industry, natural and common interference. There are two modifications of Dual Technology sensors, Bistatic – FORMAT and Monostatic – CYCLOPS.

The principle of operation: we achieved the high interference immunity of the sensor thanks to the combination of two different physical principles of operation – bistatic (monostatic) microwave (MW) and active (passive) infrared (IR), i.e. two ways of intrusion detection.

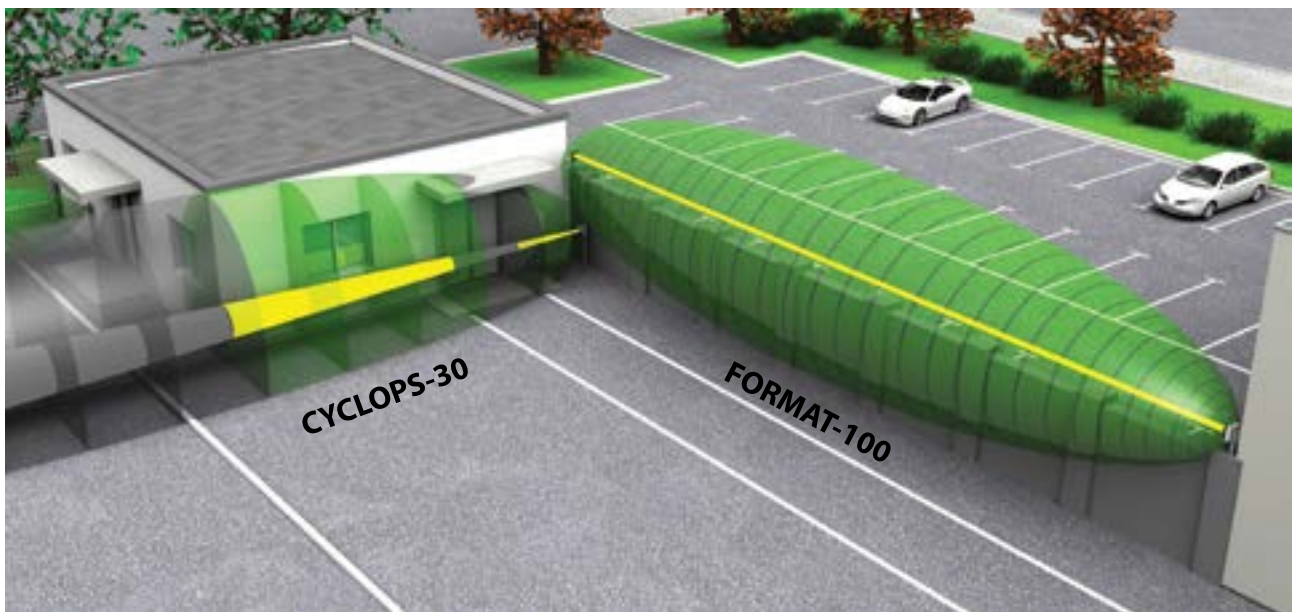
Different interferences influence differently on the processing channels. For example, the litter raised by the wind can activate the IR channel and the MW channel will stay inactive. That is why combination of these two physical principles and alarm initialization at the activation of both channels allowed to increase significantly the interference immunity.

There is no complete analogues of our sensors in architecture, design and integrated functionality.

The sensors are used to protect big and small industrial factories, military bases, transport structure, etc.

As the alarm is generated only at the activation of both channels, the resultant detection zone in case of bistatic dual technology sensors has small dimensions – the dimensions of the IR beam. Like this we can use the sensors for the protection of perimeter sectors requiring extra narrow detection zone.

The high survivability of the sensor is assured thanks to the performance of the sensor in case of failure or false alarming of one of the detection channels.



Protection of the perimeter using the Dual Technology Bistatic sensor FORMAT-100 and Dual Technology Monostatic sensor CYCLOPS-30

- - microwave channel
- - infrared channel
- - sub zones disconnected