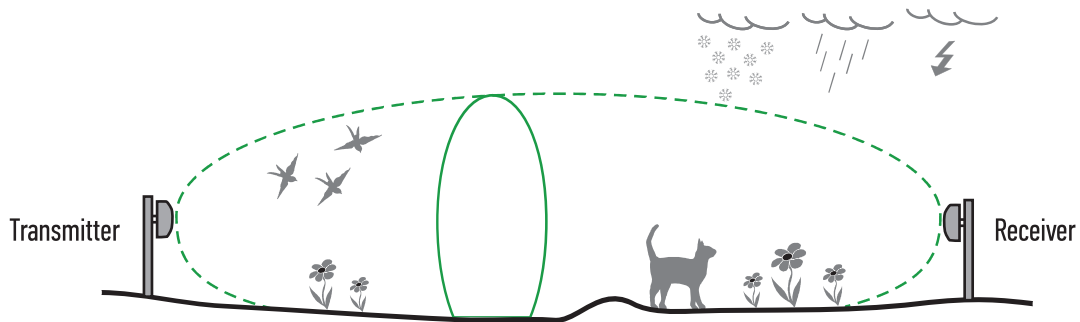


MICROWAVE BISTATIC SENSORS

The sensors are intended for the protection of direct perimeter sectors. The sites include industrial facilities, airports, sites of force structure, power plants, private premises, etc.

The principle of operation is based on generation of an invisible volumetric detection zone between the transmitter and the receiver. When the intruder is crossing the detection zone, the receiver registers its alteration and generates the alarm.



Features of Microwave Bistatic Sensors

Taking into account many years of operation of the sensors we can mark their high detection probability and good interference immunity. The sensors are easy to mount and adjust and do not require significant expenses on seasonal maintaining.

The sensors are immune to the influence of rain, snow, fog, lightning, icing, solar radiation, electromagnetic field up to 500 kV, vegetation, small birds and animals.

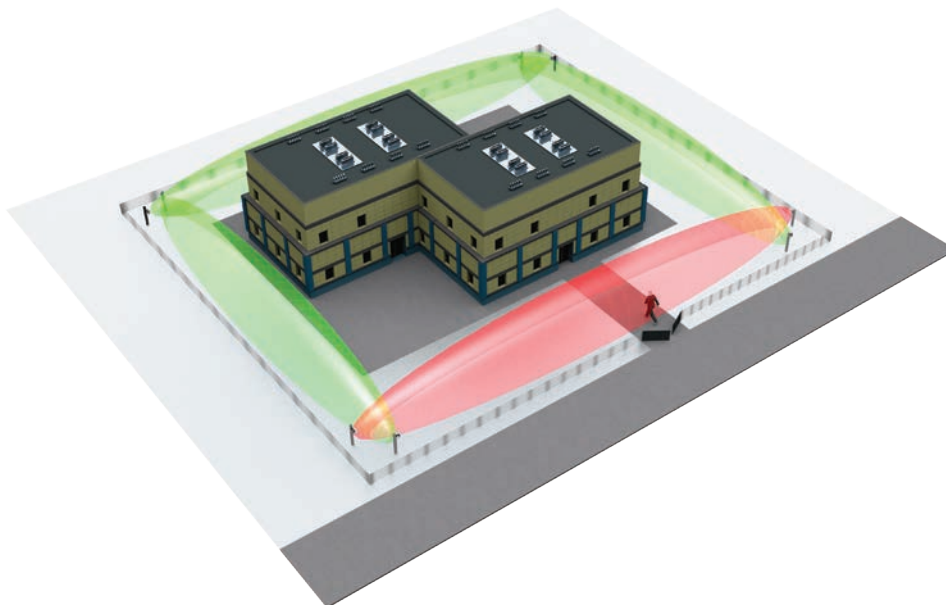
The wide choice of models differing in range, frequency and operational temperature allows to select the optimal variant for the perimeter protection in different climatic conditions.

We use traditional dry relay contacts as well as RS-485 and USB interfaces to control the sensors and to transmit the alarm signal. Like this we make it easy to combine our sensors with many modern integrated security systems and popular control panel.

We use up-to-date effective algorithms for digital signal processing. Many years of manufacture and operation of our sensors allowed us to analyze the reliability of the equipment and correct the algorithms. As a result we achieved the maximal interference immunity and reliability of the signal processing.

We do not stop. We develop new functional which will increase the reliability and comfort of work.

FOR NOW THESE ARE THE MOST POPULAR SENSORS FOR PERIMETER PROTECTION



FORTEZA-500, FORTEZA-300
FORTEZA-200, FORTEZA-100, FORTEZA-50



Operation on 24,15 GHz allows to:

- use sensor in many countries all over the world without getting approval for frequency use;
- minimize the influence of different types of interference;
- provide narrow detection zone and make it possible to use the sensors on different sites.

Configuration of sensors using special software (under Windows) via USB allows to set the optimal operation mode, also remotely from the guard room via RS-485 interface.

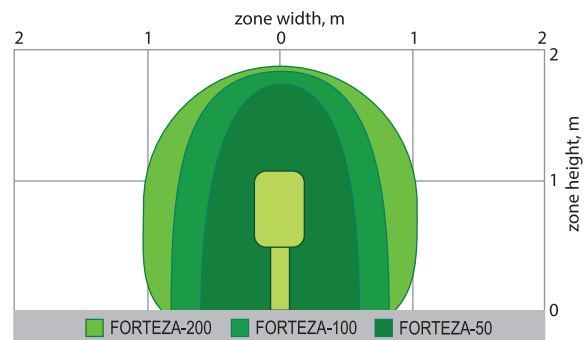
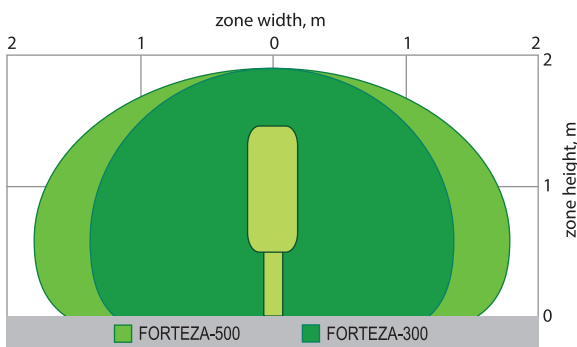
The model with wireless configuration via Bluetooth on Android is available at the order.

The wide aperture of the parabolic antenna of the sensors FORTEZA-500 and FORTEZA-300 allows to eliminate «dead zones» near Tx and Rx and to assure reliable performance under snow cover up to 0,9 m, grass up to 0,4 m and to provide high interference immunity for birds flying near antennas. As a result we minimize maintenance works on the protected site.

Improved design and signal processing algorithms used provide the reliable detection of the intruder and high interference immunity.

4 frequency letters eliminate the influence of adjacent sensors. Like this it is possible to put several sensors near each other.

Specifications	FORTEZA-500	FORTEZA-300	FORTEZA-200	FORTEZA-100	FORTEZA-50
Operational frequency	24,15 GHz				
Range	10 ÷ 500 m	10 ÷ 300 m	10 ÷ 200 m	10 ÷ 100 m	5 ÷ 50 m
Width of the detection zone	0,5 ÷ 3,5 m	0,5 ÷ 2,7 m	0,5 ÷ 2,1 m	0,5 ÷ 1,5 m	0,3 ÷ 1 m
Height of the detection zone	up to 1,8 m				
Supply voltage	9...30 V DC				
Current consumption	0,045 A				
Detection probability	not less than 0,98				
Operational temperature	minus 50...+75 °C		minus 40...+80 °C		
Housing protection level	IP-55				
Alarm output	relay contacts				
Interfaces	RS-485, USB, Bluetooth (upon request)				
Dimensions	601x150x170 mm		211x138x105 mm		
Weight	5,4 kg		2,4 kg		



Dimensions of the detection zones of the sensors FORTEZA

FMW-3, FMW-3(200), FMW-3/1, FMW-3/2 FMW-3PC, FMW-3(200)PC, FMW-3/1PC, FMW-3/2PC

Available and effective sensor for the protection of different sites with maximum number of positive testimonials.

Operation on 9,375 GHz allows to increase the width of the detection zone. Like this we make it difficult for the intruder to cross it.

The easiest configuration using control units on-board of the Rx does not require high qualification of staff. Multimeter and screw driver are enough for configuration.

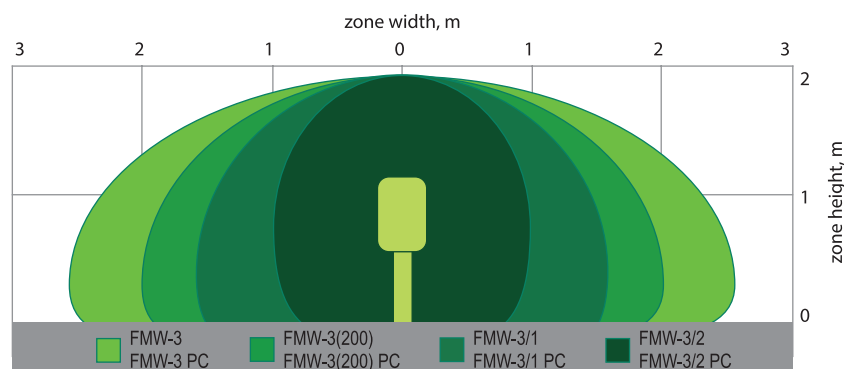
Configuration of sensors FMW-PC using special software (under Windows) via USB allows to set the optimal operation mode, also remotely from the guard room via RS-485 interface.

4 frequency letters of sensors FMW-PC eliminate the influence of adjacent sensors. Like this it is possible to put several sensors near each other.

The sensor is successfully used on outdoor perimeter sectors free from buildings and big vegetation. The sensor assures reliable protection of the site under control.



Specifications	FMW-3 FMW-3 PC	FMW-3 (200) FMW-3 (200) PC	FMW-3/1 FMW-3/1 PC	FMW-3/2 FMW-3/2 PC
Operational frequency	9,375 GHz			
Range	10 ÷ 300 m	10 ÷ 200 m	10 ÷ 100 m	5 ÷ 50 m
Width of the detection zone	0,7 ÷ 5 m	0,7 ÷ 4 m	0,7 ÷ 3 m	0,5 ÷ 2 m
Height of the detection zone	up to 1,8 m			
Supply voltage	9...30 V DC			
Current consumption	FMW: 0,035 A FMW PC: 0,045 A			
Detection probability	not less than 0,98			
Operational temperature	FMW: minus 40...+80°C FMW PC: minus 50...+80°C			
Housing protection level	IP-55			
Alarm output	relay contacts			
Interfaces (only FMW PC)	RS-485, USB, Bluetooth (upon request)			
Dimensions	213x213x70 mm		211x135x75 mm	140x122x47 mm
Weight	2,4 kg		2 kg	0,8 kg



Dimensions of the detection zones of the sensors FMW