

Name CVD-107 Security Sensor

Indication CTBΦ.426479.006



Purpose

CVD-107 security sensor is intended to provide reliable protection in outdoor environments and detects a human intruder passing the detection zone near fences, masts, gates or entryways and requires narrow exclusion zone.

Composition:

- transmitter – 1 pc.;
- receiver – 1 pc.

Incorporated in sealed plastic housing with mounting bracket. The mounting bracket ensures adjustable position of the sensor and can rotate it by $\pm 10^\circ$ in any direction.

Transmitting and receiving units are installed and connected on the opposite sides of the protected area. Transmitter emits electromagnetic waves heading receiver. Receiver translates these waves into electrical signal and processes it in accordance with preset algorithm. Movement within the detection zone changes (increases or decreases) signal intensity and triggers alarm.

Modulation depth and signal features depend on intruder's height and weight, land topography and intrusion speed.

The sensor features with narrow transmission beam to ensure resistance to interference of moving objects near to the detection area axis. CVD-107 supports remote adjustment by upper-level software.

CVD-107 security sensor is covered by Patent №2603953.

Application.

CVD-107 is applied as a part of perimeter security and intrusion detection systems.

Technical Features

Parameter	Value
Operating frequency, MHz	24125±125
Walking or bending intruder speed for successful detection, m/s	from 0,1 to 10,0
Remote control signal parameters: - impulse voltage, V; - impulse duration, s, not less	5–30 0,5
Detection zone length, m	5-300
Detection zone width at equidistance from CVD-107 units with max detection range, not less, m	3
Received signal margin at max detection zone length, dB	6
Detection zone height at equidistance from CVD-107 units with max detection range, not less, m	3,0
Uncertain detection zone length at max distance from CVD-107 units, m	2,0
DC voltage, V	от 10 до 36
Acceptable ripple voltage amplitude, V	0,03
Input current at 12V operating voltage: a) transmitter б) receiver	160 200
Operating time after switch-on, s	45
Recovery time, s	10
Output signal generated by ALM and Tamper ALM: - DC or AC, not more, mA - amplitude voltage, V, not over	120 30
Alarm duration, s	2
Detection rate	0,99
Mean time between failures, h	60000
Communication interface	RS-485
Mean time between false alarms, h	1200
Sensor informativity by loop	4
Sensor informativity by RS-485	15
Operating temperatures, °C	-40...+70
Dimensions of each unit, mm	210x210x100
Shipping weight, kg	1,3