

## CVD-111 Security sensor

### Purpose

CVD-111 is a vibration-sensitive triboelectric perimeter security sensor applied to secure metal fences and detect any intrusion attempts. A reliable solution for enhancing the security of metal fabric fences including: chain link, razor wire and welded mesh. It generates alarm in case of any vibration or partial damage detection.



Incorporated in metal housing.

CVD-111 scope of supply:

- Processing unit – 1 pc.;
- Sensing cable set for CVD-111, CVD-112\* – 1 set.
- Sensing cable halfset for CVD-111, CVD-112\* – 1 set.

\* – scope of supply is defined by purchase order.

Sensing cable set includes:

- Sensing cable – 4 pcs..
- Resistor C2-33-0,25-4,7 MO $\Omega$   $\pm$  5% – 4 pcs.
- Shrinkable cap SKE4/10 – 4 pcs.

Sensing cable halfset includes:

- Sensing cable – 2 pcs.
- Resistor C2-33-0,25-4,7 MO $\Omega$   $\pm$  5% – 6 pcs.
- Shrinkable cap SKE4/10 – 6 pcs.
- Shrinkable tube TUT 2/1 – 10 cm.
- Socket 2PM/IT14KPIH4Г1B1 – 2 pcs.

CVD-111 operating principle is based on triboelectric technology (fence shaking movements generate electric signals). CVD-111 has separate channels to connect high-frequency and low-frequency triboelectric cables, applicable to all perimeter fence constructions. CVD-111 incorporates self-adaptive signal processing algorithm to ignore spurious responses and environmentally generated alarms. Any attempt to cut, climb or pull the fabric of the fence results in an alarm.

CVD-111 has self-test functions: alarm on failure and remote test.

CVD-4920 cable is applied for sensor configuration and supplied separately. Another setting option is via RS-485-USB adapter.

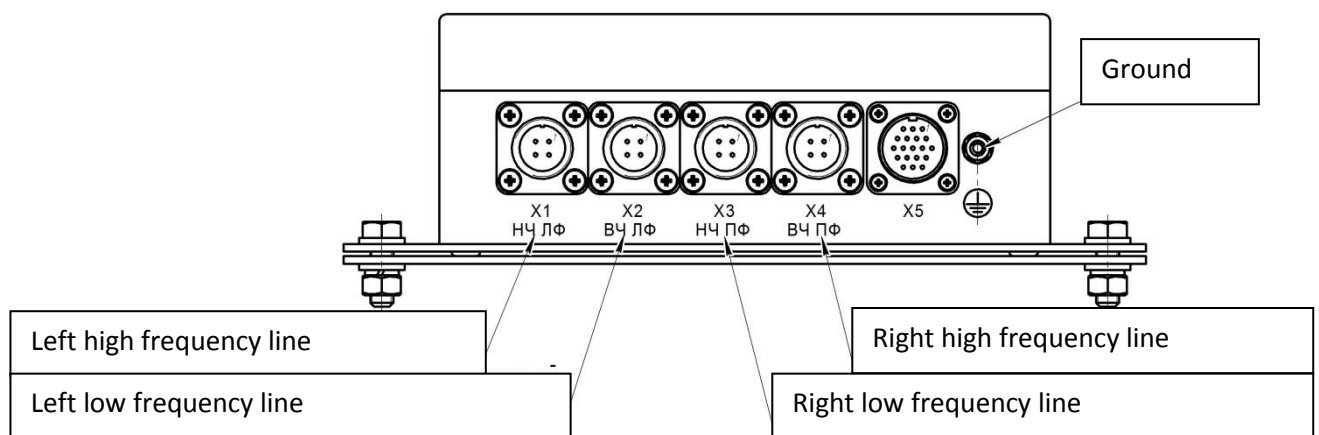
### Technical Specification

Parameter	Value
Intruder detection distance, m - by sensing cable set - by sensing cable halfset	2 lines x 250 m 1 line x 250 m (or 2 lines with total 250 m length)
Detection rate, min	0,95
Activation time after power-on, sec	60
Time of standby mode recovery after alarm detection, sec	10
Alarm duration, sec	from 1 to 60

DC voltage, V	12
Input current, max mA	3
Operating mode	continuous
Ingress protection	IP65
Operating temperatures, °C	from -40 to +50
Overall dimensions, mm	210x112x85
Weight, max, kg	2
Number of lines, pcs. - sensing cable set - sensing cable halfset	4 x 250 m 2 x 250 m
CVD-4920 calibration cable length, max, m	6

## 1. Connection

### 1.1. Processing unit



X1–X4 – socket for sensing cables;  
X5 – socket for calibration cable

**Attention!!!** Ground connection is vital for reliable operation.

CVD-4920 cable.

X5 socket pin description:

№ pin	Name
1	Failure out Left side-A
2	Failure out Left side - B
3	Failure out Right side-A
4	Alarm out Left side -A
5	Alarm out Left side -B
6	Alarm out Right side -A
7	Alarm out Right side -B
8	Power in +12V
10	General
11	Failure out Right side -B
14	Control out -A
15	Control out-B
16	RS-485 (A)
17	RS-485 (B)
18	Cable control
19	Cable control