Stilsoft
Russian developer and manufacturer of complex security systems

STS-117

Security sensor

STVF.426479.059

PURPOSE

STS-117 security sensor is designed for detecting intruder trying to traverse a mesh metal fence as well as crossing a non-fenced perimeter.

FIELDS OF APPLICATION

- as a stand-alone line intrusion protection device
- as part of integrated facility security systems in combination with detection equipment of other operating principles

VERSION

- sensor is a processing unit with connected cable and vibration-seismic sensing elements
- sensor processing unit is enclosed in a metal casing equipped with a tamper switch
- sensor processing unit is designed for mounting on mesh fences
- sensor is equipped with one vibration-seismic and two cable sensing elements
- each of cable sensing elements is a special cable with a resistor contained end coupling
- vibration and seismic sensing element is 250±5 m long special cable with 32 geophones spaced at regular intervals in sealed casings

FEATURES

- detection of ultra-small mechanical fence vibrations caused by the intruder's physical impact
- detection of ultra-small ground vibrations caused by the approaching intruder or vehicle
- generating and sending an alarm notification upon crossing a non-fenced line or fence breaking attempts
- automatic regular operability check of the processing unit and sensitive elements

- generating a fault notification upon breakage or short-circuit detection
- adjusting the sensor with STS-4920 configuration cable STVF.426471.464 (purchased separately) or via RS-485 interface via RS-485-USB adaptor

PECULIARITIES

- forming two detection zones using different physical principles: triboelectric and vibration-seismic
- width of detection zone enabled by vibration and seismic sensing elements may vary depending on soil density
- vibration and seismic sensitivity sensor detection performance increases at low temperatures

SCOPE OF SUPPLY

Name	Quantity
✓ STS-117 Security sensor, including:	
– Security sensor processing unit	1 шт.
– Sensing element set for STS-116, STS-117	1 к-т
– Mounting set STAE.425911.002	1 к-т
✓ Passport	1 шт.
✓ Operating guidelines *	–
* The operating guidelines are supplied in a single copy when shipped with a batch of products or as part of a system. For single deliveries, the operating guidelines are supplied for each unit Operating guidelines are available at: http://stilsoft.ru	

RELIABILITY AND WARRANTY

- Warranty operation period - 2 years.
- Average operation period before decommissioning - 8 years (minimum).

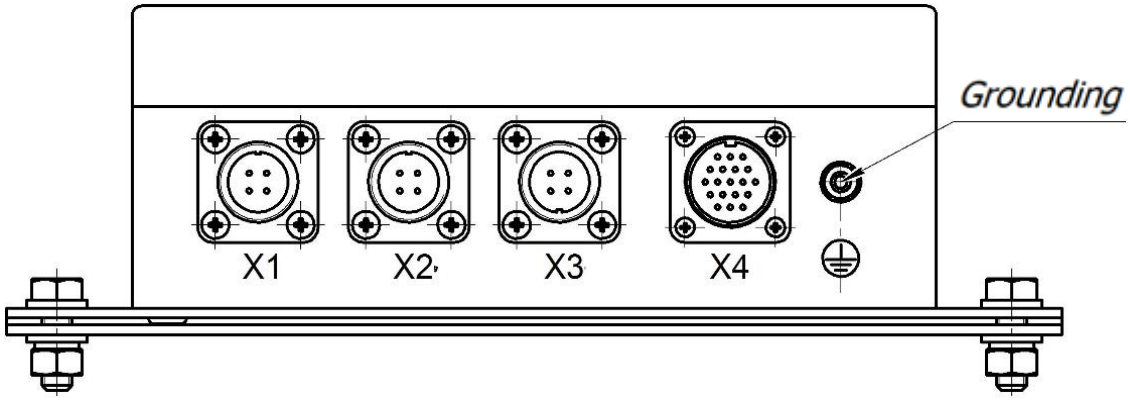
TECHNICAL PARAMETERS

Parameter name	Quantity
Length of secured section, m, when using: – sensing element set – vibration and seismic sensing element	 1 flank up to 250m 1 flank up to 250m
Intruder detection probability during traversing the fence by climbing over or tunneling under the deepened fence, destroying the meshwire by cutting or sawing as well as by dismantling the sensing element at 0,9 confidence level (minimum)	0,95
Average mean time between failures, h	60000
Average MTBF during exposure to random natural combination of environmental interference factors, h (minimum)	1200
Average MTBF during exposure to random natural combination of interference factors of artificial (industrial) origin, h (minimum)	720
RS-485 bus information value	7
Loop information value	5
Standby time after power-up, s	30
Alarm recovery time, s	10
Notification duration, s	от 1 до 60
DC power supply voltage, V	от 12 до 36

Parameter name	Quantity
Current consumption, mA (maximum)	3,2
Operating mode	continuous
Operating temperature range, °C	from -40 to +50
Overall dimensions, mm	210x126x76,4
Processing unit weight, kg (maximum)	2
Number of rays, pcs. – sensing element set – vibration and seismic sensing element	 2 pcs 250 m each 1 pc 250 m

CONNECTION

Connection of processing unit



X1 – socket for connecting vibration and seismic sensing element

X2, X3 – sockets for connecting cable sensing elements

X4 – socket for connecting STS-4920 configuration cable and wired connection

Contact designation for X4 connector

# cont.	Name
1	Output LF-A malfunc.
2	Output LF-B malfunc.
3	Output RF-A malfunc.
4	Output LF-A alarm
5	Output LF-B alarm
6	Output RF-A alarm
7	Output RF-B alarm
8	Power input +12V
9	Tamper sensor A
10	General
11	Output RF-B malfunc.
12	RC (Remote control)
13	Tamper sensor B
14	Output control-A
15	Output control-B
16	RS-485 (A)
17	RS-485 (B)
18	Cable monitoring
19	Cable monitoring

Developed and manufactured in Russia

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