

"RADIOBARRIER" WIRELESS INTRUSION DETECTION SYSTEM

RS-U v2.0 MULTI-SENSOR

The **RS-U v2.0** is a compact version of the **RS-U Multi-Sensor**. It is powered by a built-in battery and is used during short-term missions and special operations. The **RS-U v2.0** is a multifunctional seismic sensor that detects and classifies intruders based on the seismic signature they produce within a circular detection zone. It then sends an alarm to the operator's console or a receiver.



The **RS-U v2.0** can operate in the following modes:

- As a seismic sensor. The **RS-U v2.0** classifies the type of intrusion, personnel or vehicle, and sends an alarm message. This is the default setting.
- As a break-wire sensor¹. The **RS-U v2.0** sends an alarm message when the microwire of the **KM Cartridge with Twin-cord Microwire** is broken and/or when the contacts of the **SMK Magnetic Switch Sensor** are disconnected.
- As an autonomous repeater (always on). The **RS-U v2.0** transmits alarm and service data of system devices in the radio network to increase the network communication range and the reliability of data exchange in it.

Additional functions

- In the network controller configuration, the **RS-U v2.0** organizes the system devices and keeps them operational in a radio network.
- The **RS-U v2.0** performs self-tests and exchanges of service messages automatically or on operator's request.
- The **RS-U v2.0** settings and modes can be changed onsite through a handheld receiver and remotely, through an operator's console.

Power supply

- The **RS-U v2.0** is powered by a 3.75 V built-in rechargeable battery.

Additional equipment²

- ZU-RS-U Charger for RS-U v2.0 equipped with a ZU-KOPR220 220 V Mains Charger for KOPR and PTV.

Compatible antennas³

- AGP-433 433 MHz Flexible Antenna
- ASH-433 433 MHz Whip Antenna

¹The **RS-U v2.0** operates in break-wire mode only with additional equipment: the **KVU External Device Cable**, the **KM Cartridge with Twin-cord Microwire**, and/or the **SMK Magnetic Switch Sensor**. Shall be ordered by the customer separately.

^{2,3}Additional equipment. Shall be ordered by the customer separately.

ANTENNAS' COMMUNICATION RANGE (433 MHZ)**

Max, m	AV-6	ASh	AShS	AShV	AK	KBV	AGP	Y5	AMSh	PA/an1	ABK
ASh	8000	2000	1700	4000	500	6000	200	7000	5000	50	5500
AGP	1000	200	150	200	50	300	100	500	200	-	250

***Environmental conditions:** T: 20°C, RH: 80%, cloudless atmosphere, LoS: 8 km, elevation changes within the detection line: less than 2 m.

Installation requirements: No power lines within 5000 m, no sources of radiation at the antennas' frequencies within 5000 m, no solar flares, no industrial contamination of the air, no ionized particles in the air, installation at the recommended antenna installation height.

Note: The type of antenna for the **RS-U v2.0** may vary and is subject to operating conditions and technical requirements of the customer.

PERFORMANCE**

Seismic detection range:	
<ul style="list-style-type: none"> personnel vehicle 	170 m 300 m
Radio channel frequency	433.2–434.6 MHz
Radio channel type	two-way digital radio channel
Continuous operation time:***	
<ul style="list-style-type: none"> if the network is in active mode if the network is in eco mode 	1.5 months 5 months
Detection probability	0.95
Sealing	IP68
Operating temperature range	-40°C to +50°C
Weight	0.55 kg
Dimensions (length × width × height)	110 × 95 × 85 mm

****Environmental conditions:** Soil characteristics as in Lat, Long: 53.394505, 77.729883, May to September, 12% to 14% soil moisture.

*****With the battery fully charged, 1-second network configuration, maximum of 8 neighboring devices, and vehicle detection mode disabled.**

ENVIRONMENTAL REQUIREMENT	MIL-STD REFERENCE
Storage High Temperature	MIL-STD 810H, 501.7 I (+60°C)
Storage Low Temperature	MIL-STD 810H, 502.7 I (-50°C)
Storage Low Pressure	MIL-STD 810H, 500.6 I
Natural Humidity (Cycle B3)	MIL-STD 810H, 507.6 Ia
Induced Humidity (Cycle B3)	MIL-STD 810H, 507.6 Ib
Operation High Temperature	MIL-STD 810H, 501.7 II (+50°C)
Operation Low Temperature	MIL-STD 810H, 502.7 II (-40°C)
Operation Low Pressure	MIL-STD 810H, 500.6 II
Immersion	MIL-STD 810H, 512.7 I
Functional Shock	MIL-STD 810H, 516.8 I
Transportation Shock	MIL-STD 810H, 516.8 II