

- ◆ calibrator of device for vibration measurement
- ◆ exact source of the angular frequency
- ◆ exact source of the charge and voltage
- ◆ selectable signal types with exactly defined integral values



Purpose

The universal signal source UZS type C5 serves for the testing, calibration and adjusting of apparatuses and systems with piezoelectric vibration sensors. UZS is determined for the production and service both of portable apparatuses and permanent installed equipment. UZS can be also used in laboratories at the simulation of real signal sources and control of measuring chains. The source has fluently adjustable output amplitude and switchable output frequency.

The possibility of output frequency adjusting is in accordance with requirements of ISO standards. Digitally synthesized shaped of the output voltage process permits the extensive selection of shaped of processes necessary for the control of special attributes of equipment – e.g. attributes of applied detectors (peak-to-peak value, RMS etc.). The UZS can be also used like the source of noise, e.g. for the simulation of noises arising by the damage of roller pads of bearings and permits to make both setting and control of apparatuses for bearings diagnostics by this way.

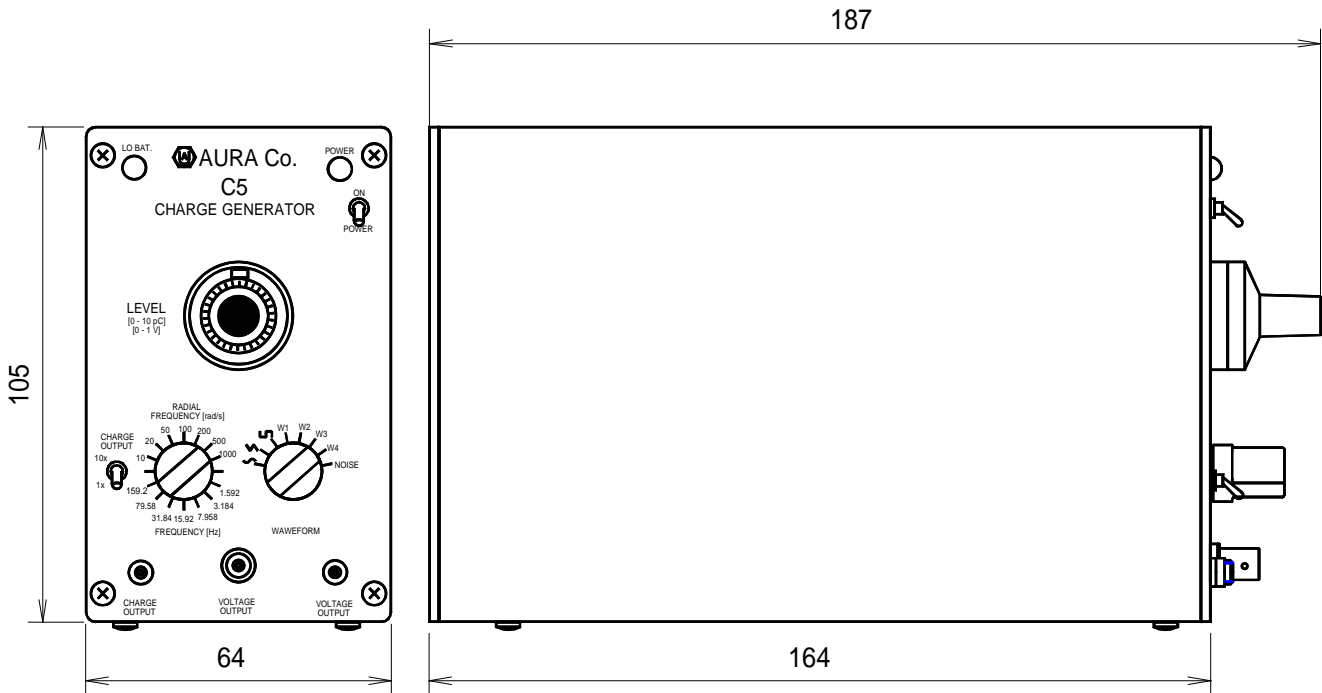
This device is standardly delivered with the pre-set sine, rectangular symmetrical triangular course and wide-band noise. Remain four signals courses aren't utilized and can be equipped, after the deal with producer, by customized shapes of signals.

The robust design of the device permits its using not only in the laboratory, but also in industrial conditions. With this corresponds the possibility of the operation in the temperature range from -25 to $+85^{\circ}\text{C}$.

Description

The apparatus UZS is placed in the fixed metal box with dimensions 64 x 105 x 164 mm. On the front panel is placed the control. The output level is setting by means of the central multi-speed potentiometer placed in the centre of the front panel. Under this element are switches of output frequency and of shape of output signal. Voltage output with the range 1V is brought out to the connector BNC and simultaneously to the connector Microdot with the screw 10-32 UNF. The output of charge is brought out only to the connector Microdot, placed on the panel bottom left. Over this connector is placed the switch of output charge range (1 and 10 pC).

In the upper part of the panel is the switch and indicator of apparatus start. On the other side is the indicator of accumulator's discharge combined with the indicator of charging. The source is power supplied from the built-in accumulator, which can be charged by the exterior mains source, which is the part of the device delivery. The connector of charging is on the back panel. The electronics is galvanically separated from the instrument box.



Parameters	
Power supply	built-in accumulator 12 V/1,5 Ah charging source: 230 V, 50 Hz, 10 VA
Output voltage	0 to 1 V peak-to-peak
Max. voltage failure	< 0,2% of the range
Output frequency	10, 20, 50, 100, 200, 500 and 1000 rad/s 1,592; 3,184; 7,958; 15,92; 31,84; 79,58 and 159,2 Hz
Max. frequency failure	< 0,25%
Shape of output signals	sine, max. distortion < 0,2% symmetrical oblong symmetrical triangular W1 – disengaged W2 – disengaged W3 – disengaged W4 – disengaged noise
Dimensions	64 x 105 x 164 mm
Mass	1,4 kg
Temperatures range	-25 to +85°C
Sealing	IP 44