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The invention relates to electromeasuring engineering and radio electronics and can be used to reproduce impedances of any character with the possibility of independent regulation of active and reactive components.
The impedance converter comprises two terminals (3, 5), one of which (3) is connected to the common wire, an operational amplifier (1), having its inverting input connected to the second terminal (5), two resistors (2, 4), one of which (2) is connected between the output of the operational amplifier (1) and its inverting input, and the second (4) – between the non-inverting input of the operational amplifier (1) and the common wire, two programmable amplifiers (9, 10) with the transmission coefficients smoothly adjustable within the limits -1…+1, a phase shifter (11) with the phase shift of 90°, having its input connected to the output of the first programmable amplifier (10), and two differential amplifiers (6, 12). The first differential amplifier (6) has its inputs connected respectively to the output of the operational amplifier (1) and its non-inverting input, and the second (12) has its inputs connected respectively to the outputs of the phase shifter (11) and the second programmable amplifier (9), and its output – to the non-inverting input of the operational amplifier (1). The converter also comprises two voltage dividers (7, 8), each consisting of three contacts *a*, *b* and *c*, n resistors, connected in series, with the poles of extreme resistors connected respectively to the contacts *a* and *b*, and a switch, having its movable contact connected to the contact *c*, and the fixed contacts – to the points of interconnection of divider's resistors and to the contact *a*, respectively. The dividers (7, 8) have the contacts *a* connected to the output of the first differential amplifier (6), the contacts *c* – to the inputs of the first (10) and second (9) programmable amplifiers, respectively, and the contacts *b* – to the common wire.

Claims: 2
Fig.: 2