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High-Precision Electro-Optical Light Rangefinder

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The paper considers a functional scheme, which introduces new solutions aimed at improving the accuracy of the laser rangefinder.
For this purpose, an adjustable optical delay line is introduced between the modulator-demodulator and the receiving and transmitting optical system, connected by the output to the measuring unit and the input to the integrator, as well as a rotating transparent disk of variable thickness located between the adjustable optical delay line and the receiving and transmitting optical system. A part of the output end of the electro-optical crystal is made with a reflective coating, and a reflective mirror is located on the side of the input end of the electro-optical crystal.
To simplify the display process and increase its reliability, the minimum indicator and the setting indicator are combined in a cathode ray tube, with an amplifier connected to the horizontal scan plates at the output of the photomultiplier, and a power detector connected to the vertical scan plates via a sawtooth voltage amplifier.

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