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PHASE LIGHT RANGERFINDER WITH ADAPTIVE OPTICAL CALIBRATION SYSTEM

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Abstract

The error of phase laser range finders, which is due to the difference in the initial phases of the signals in the modes of distance measurement and optical calibration, is determined. An algorithm for measuring the phase shift of the signal reflected from the object, which ensures the equality of the initial phases in both operation modes of the device, is described. This allows to significantly improving the speed of the rangefinder while maintaining the specified measurement accuracy. The structural diagram of the phase light range finder, which implements the proposed distance measurement algorithm, is considered. References 5, figures 2.

Key words: laser, phase shift, optical calibration, initial phase, adaptation.

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