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Electromagnetic Velocity Sensor for Lithodynamical Research in the Near Bottom Zone

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Abstract

In presentation are considered the singularities of a construction of an electromagnetic velocity sensor intended for research of a water stream in a near bottom zone. Here is shown the theoretical substantiation of a possibility of localization of an electromagnetic field around of the measuring head of a device. The technique of calculation of device design elements is given. The outcomes of laboratory experiments with an experimental device have shown that the sensitivity of a new device to presence of other objects outside device is reduced more than 500 times. Yet the sensitivity to a velocity of a water stream has remained constant.