

LOCAL CURRENT GAUGE — INSTRUMENT FOR GEOELECTRIC MEASUREMENTS

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Abstract. Results of development of a new type geoelectric instrument, a local current gauge, are presented. The principle of this gauge operation is measurement not of potential difference, but of current density. The main features of the primary field sensor are described and analyzed. The gauge characteristics are given. It is an inexpensive and easy-to-use device. Basic possible applications of the gauge are considered. It may include geoelectric and seismoelectric monitoring in geologic environment, also marine (water) geoelectric monitoring and exploration.

Keywords: direct current electrical-exploration method, local current gauge, geoelectric monitoring, seismoelectric monitoring.

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