

# Recording magnetic pulsations with quartz-variometer-based and induction magnetometers

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**A b s t r a c t:** The torsion photoelectric magnetometer PSM, employing quartz torsion variometers of Bobrov's system in a version that is not much sensitive to tilting, has a small internal noise (of the order of 10 pT rms) and can be successfully used for measurement of magnetic pulsations in almost the whole ULF band. The resistance of quartz variometers to shocks and mechanical disturbances limits the applicability of these instruments for measuring micropulsations in the frequency range of a few Hz, i.e., the Schumann resonances in the ELF band. In magnetotelluric soundings carried out in Poland in the last two years, we used the PSM magnetometers and induction magnetometers MI of our own production simultaneously. In the present report we give examples of measurements and compare the pulsation recordings obtained with the two methods.

**Key words:** magnetometer, quartz variometer, induction magnetometer

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