

## Flow Measurement Using Magnetic Meters in Large Underground Cooling Water Pipelines

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**Abstract :** This report outlines the basic installation and operation of magnetic inductive flow velocity sensors on large underground cooling water pipelines. Research on the effects of cathodic protection as well as into other factors that might influence the overall performance of the meter are presented in this paper. The experiments were carried out on an immersion type magnetic meter specially used for flow measurement of cooling water pipeline. An attempt has been made in this paper to outline guidelines that can ensure accurate measurement related to immersion type magnetic meters on underground pipelines.

**Keywords :** magnetic induction, flow meter, Faraday's law, immersion, cathodic protection, anode, cathode, flange, grounding, plant information management system, electrodes

**Conference Title :** ICSRD 2020 : International Conference on Scientific Research and Development

**Conference Location :** Chicago, United States

**Conference Dates :** December 12-13, 2020