

Title (en)
DEVICE FOR MEASURING THE FLOW OF A MEDIUM TO BE MEASURED

Title (de)
VORRICHTUNG ZUM MESSEN DES DURCHFLUSSES EINES MESSMEDIUMS

Title (fr)
DISPOSITIF POUR MESURER LE DEBIT D'UN MILIEU DE MESURE

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Application
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Abstract (en)
[origin: WO2005108933A1] The invention relates to a device for measuring the flow of a medium to be measured that flows through a measuring tube (5) in the direction of the longitudinal axis (13) of the measuring tube (5), comprising a magnet arrangement (2) that generates an alternating magnetic field (ϕ_1 , ϕ_2) at two locations. The magnetic field (ϕ_M) at the first location passes through the measuring tube (5) perpendicular to the longitudinal axis (13) of the measuring tube (5). At least one measuring electrode (E1, E2) is assigned to the measuring tube (5), and a measuring current (i) that depends on the flow of the measuring medium is induced into said measuring electrode. The magnetic field (ϕ_H ; ϕ_S) at the second location is formed so that it drives an electric motor (10). The inventive device also comprises at least one control/evaluation unit (9) that controls the magnet arrangement (2) in such a manner that a magnetic field (B) is connected which is suited for operating the electric motor (10) and the flowmeter arrangement (11). The control/evaluation unit (9) furnishes information concerning the volume flow of the measuring medium inside the measuring tube (5) based on the measuring voltage (U_{ind}) induced into the measuring electrodes (E1; E2).

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