

Title (en)

DEVICE FOR DETERMINING AND/OR MONITORING THE MASS FLOW RATE OF A GASEOUS MEDIUM

Title (de)

VORRICHTUNG ZUR BESTIMMUNG UND/ODER ÜBERWACHUNG DES MASSEDURCHFLUSSES EINES GASFÖRMIGEN MEDIUMS

Title (fr)

DISPOSITIF POUR DETERMINER ET/OU CONTROLER LE DEBIT MASSIQUE D'UN MILIEU GAZEUX

Publication

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Application

**EP 06830257 A 20061130**

Priority

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Abstract (en)

[origin: WO2007063114A2] The invention relates to a device for determining and/or monitoring the mass flow rate of a gaseous medium through a conduit (2) or through a measuring tube. Said device has at least two temperature sensors (11, 12) and a control/evaluation unit (10), both temperature sensors (11, 12) being located in a region of the housing (5) facing the medium (3) and being in thermal contact with the medium (3) flowing through the conduit (2) or through the measuring tube. A first temperature sensor (11) is configured so as to be heatable and a second temperature sensor (12) provides data on the actual temperature of the medium. The control/evaluation unit (10) determines the mass flow rate of the medium (3) using the difference in temperature (?T) between the two temperature sensors (11, 12) and/or using the heating capacity (Q) fed to the first temperature sensor (11). The control/evaluation unit, using at least one additional process variable (p, T, v) of the flowing medium (3), determines a corrected value for the mass flow rate determined using the difference in temperature (?T) or the heating capacity (Q) and makes available a corrected value (Q<sub>mc</sub>) for the mass flow rate through the conduit (2) or through the measuring tube.

IPC 8 full level

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CPC (source: EP US)

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Citation (search report)

See references of WO 2007063114A2

Citation (examination)

THOMPSON D: "Aerodynamic heating of miniature bead thermistor thermometers in a rarified airstream", JOURNAL OF APPLIED METEOROLOGY, vol. 7, 1968, pages 504 - 508

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