

Title (en)
AIR MASS FLOWMETER

Title (de)
LUFTMASSENMESSER

Title (fr)
DÉBITMÈTRE MASSIQUE D'AIR

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Application
EP 11713796 A 20110412

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Abstract (en)
[origin: WO2011128310A1] The invention relates to an air mass flowmeter consisting of a tube and a sensor module, which is fitted in the tube, for measuring a gas quantity flowing in a main direction of flow in the tube at a flow speed, wherein the sensor module extends in the main direction of flow in the tube, and a start of the sensor module defines a first plane normal to the main direction of flow, and an end of the sensor module defines a second plane normal to the main direction of flow, and wherein the sensor module has a flow channel which receives some of the gas quantity flowing in the tube and directs said gas quantity via measuring elements. In order to specify an air mass flowmeter which can be produced in a cost-effective manner and makes it possible to accurately measure an air mass flow, extended flow directing elements are arranged in the tube and are oriented parallel to the main direction of flow, with the result that the gas quantity flows onto end faces of the flow directing elements and flows past wall regions of the flow elements, wherein the wall regions of the flow directing elements at least partially extend between the first and second planes, with the result that the flow directing elements increase the flow speed of the gas quantity, given a low flow speed, in the tube in the region of the sensor module, relative to the flow speed in the tube and increase the flow speed of the gas quantity to a lesser extent, given a high flow speed of the gas quantity, in the tube in the region of the sensor module, relative to the flow speed.

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