Title (en)

MIXTURE-MEASURING SYSTEM FOR A COMBUSTION ENGINE

Publication

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Application

EP 84116261 A 19841222

Priority

DE 3405916 A 19840218

Abstract (en)

[origin: US4689746A] The invention is directed to a mixture metering arrangement for an internal combustion engine with a digital data processor, particularly a microcomputer, the signal processing pattern of which is governed by clock pulses, and with a signal generating means which delivers analog output signals. The signal generating means is responsive to operating parameters of the internal combustion engine and is an exhaust gas sensor responsive to the air ratio Lambda. The exhaust gas sensor is used in a closed-loop control system to influence the air-fuel ratio and changes its output quantity at the air ratio of Lambda=1. In this arrangement, a correcting stage corrects the influence of a delay time (tv) connected with the clocked signal processing on the mixture formation. The delay occurs in the transmission of the change in the output of the sensor. Two methods are indicated for the mode of operation of the correcting stage by means of which a mean value shift of the quantity (FR) influencing the mixture formation is avoided and the concentration of toxic substances in the exhaust gases is minimized. Flowcharts are disclosed to realize the invention by means of a suitably programmed microcomputer.

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