

Title (en)

Apparatus for controlling fluid flow at an orifice.

Title (de)

Vorrichtung für die Steuerung des Durchflusses durch eine Öffnung.

Title (fr)

Dispositif de commande de l'écoulement d'un fluide par un orifice.

Publication

**EP 0034936 A1 19810902 (EN)**

Application

**EP 81300737 A 19810223**

Priority

CA 346476 A 19800226

Abstract (en)

Control apparatus, typically for carburetors, which comprises an actuator device (20) having a permanent magnet armature and a pair of coils surrounding the permanent magnet, and a microprocessor (18) responsive to certain parameter-sensed variables including pressure (12), temperature (14), throttle conditions (16) and oxygen content (10) in order that these variously sensed parameters can be communicated to the microprocessor wherein there is transduced by algorithm either a digital signal or an analog signal. The digital or analog signal is then fed to the actuator device in the form of a demand signal for current flow to the armature coils. The coils upon energisation mechanically displace the armature to effect mechanical transducing of the electrical signal to control an actuator rod effecting orifice control. The @armature@ thus effectively controls the orifice size, which in turn determines fuel/air ratio for an internal combustion engine, in conjunction with a carburettor function. Fuel-air control creates operating conditions which in turn are re-sensed by the sensors, the sensors in turn repeating their operation so that there is provided a closed loop servo system either by digital or analog signals.

IPC 1-7

**F02M 17/38**; **F02M 7/12**; **F02M 7/24**; **F02M 23/04**

IPC 8 full level

**F02D 41/14** (2006.01); **F02D 41/26** (2006.01); **F02M 3/09** (2006.01); **F02M 7/20** (2006.01); **F02M 7/24** (2006.01); **F16K 31/06** (2006.01); **F02M 37/00** (2006.01); **G05D 7/06** (2006.01)

CPC (source: EP)

**F02D 41/1484** (2013.01); **F02D 41/26** (2013.01); **F02M 3/09** (2013.01); **F02M 7/20** (2013.01)

Citation (search report)

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